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THE LANCET.

A Journal of British and Foreign Medicine, Surgery, Obstetrics, Physiology, Chemistry, Pharmacology, Public Health, and News.

E. 607

IN TWO VOLUMES ANNUALLY.

VOL. I. FOR 1896.

SEVENTY-FOURTH YEAR.

EDITED BY THE PROPRIETORS:

THOMAS H. WAKLEY, F.R.C.S. ENG.,

AND

THOMAS WAKLEY, JUN., L.R.C.P. LOND.

LONDON:

PRINTED AND PUBLISHED BY THE REGISTERED PROPRIETORS, AT THE OFFICES OF "THE LANCET," No. 423, STRAND, AND Nos. 1 & 2, BEDFORD STREET, STRAND.

MDCCCXCVI.

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Portrait of the late William Cholmeley, M.D.St.And., F.R.C.P.Lond., 1824

END OF THE FIRST VOLUME FOR 1896.

PRINTED and PUBLISHED by the REGISTERED PROPRIETORS at No. 423, Strand, and Nos. 1 and 2, Bedford-street, Strand, in the Parish of St. Martin-in-the-Fields, Westminster, in the County of London.—Saturday, June 27th, 1896.

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A Clinical Lecture
ON
FRACTURES OF THE LOWER LIMB.

Delivered at University College Hospital on Dec. 2nd, 1895,

BY CHRISTOPHER HEATH, F.R.C.S. ENG.,
PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND; HOLME PROFESSOR OF CLINICAL SURGERY IN UNIVERSITY COLLEGE.

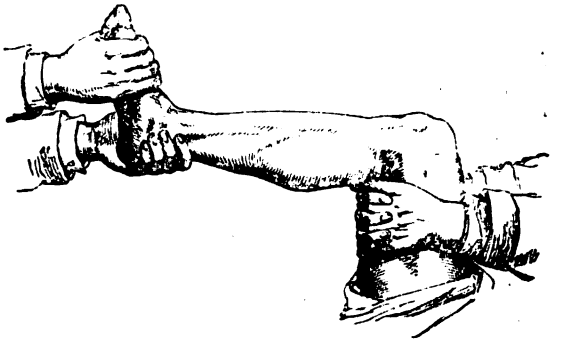
GENTLEMEN,—During the last two months we have had in the wards under my charge the average number of fractures, but it is a little remarkable that we have not had a single case of compound fracture. I will first direct your attention to the case of fracture of both thighs which you have just seen in No. 1 ward. The patient is a man who fell a distance of forty feet down a lift and sustained a fracture of both thighs, but, fortunately for him, they were simple and not compound. The fractures in this case have been treated by the plan of weight-extension, and the result we have attained is very good. In the right thigh, where the fracture occurred lower down than in the left thigh, callus has been thrown out, and it is evident that a good union has taken place, and this at the end of four weeks. At the fracture in the left thigh less callus has been formed, but still union has occurred, though perhaps a weak union. Extra care must, therefore, be taken of the case, and by putting the two fractures up in plaster-of-Paris for another four weeks perfect union may be expected. You will remember that I said in the ward that it would be better to get the patient up and about, and I said this because after a man has been lying in bed for four weeks his strength begins to fail, and he will do better by being up and about in a fixed apparatus than by lying on his back in bed.

Let me here remind you of a case of absolute non-union of a fracture of the femur which was sent up to the wards under my care a short time ago. Although the case had been well treated in the usual manner by perfectly competent surgeons, there was absolutely no union. I had that patient brought into this theatre, and under an anæsthetic I applied extension so as to bring the two parts of the fractured bone thoroughly together, and I also went through the manœuvre of bending the bone at the seat of the fracture. It is possible, though I do not say it was so in this particular case, that the two surfaces of the broken bone had not been brought into close apposition. Some tissue, perhaps, may have been interposed between the two surfaces, and that would be quite enough to account for the non-union of the fracture. To have simply made extension would probably have been of no use, and I therefore did what you have seen me do before, though not in a case of fractured thigh—I bent the bone at the seat of the fracture, the object being to place the limb in the position it was probably in when the fracture occurred, and then to try to bring the ends together so that they should grate one against the other. In this case I think I succeeded in getting the bones into very fair position, and the fracture was then put up in plaster, fixing both the hip and knee-joints. At the end of a fortnight, however, the patient again required our attention, because the plaster had given way at the groin and wanted repairing. I had fresh plaster put on outside the old at the groin and let the man go away till after Christmas, when he is to return, so that I can take the plaster off myself and see how the case has progressed.

We have, then, two cases—one a case of weak union, the other a case of absolute non-union—both treated by fixation and both allowed to be up and about on crutches. So far as the splint will allow there will thus be pressure made on the two ends of the bone at the seat of fracture, and in that way I hope we shall have extra callus thrown out and avoid an operation for ununited fracture. I would remind you how important it is, in fracture of the leg particularly, that the fracture should be set thoroughly and accurately. Of course I know well that there are many difficulties. Immediately after the accident all the muscles of the limb are more or less in a state of spasm, and tend, therefore, to pull the bones into abnormal positions, but that state of spasm passes off in the course of a few hours, and you can generally manage with care and patience to put the limb into a proper position, and unless that is done, and done accurately, the surgeon has not treated the case properly.

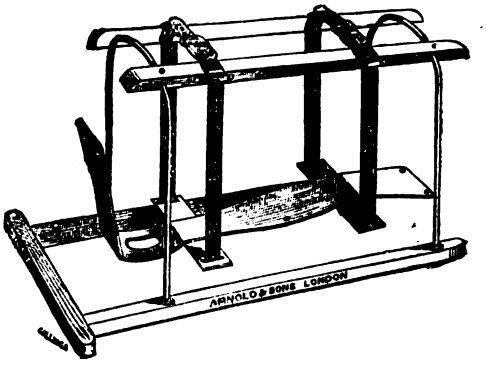
Looking at this specimen from the museum, you can see that there has been a fracture of both the tibia and fibula, and the probability is that they were broken by direct violence, because the fractures are nearly opposite one another, whereas if the accident had occurred from indirect violence the fracture of the fibula would have taken place higher up. I therefore think that we shall be right in saying that this was a case of direct violence, causing, as you can see, very considerable displacement, the lower fragment of the tibia passing behind the upper fragment. Union in this case has been very complete, abundance of callus having been thrown out, but the patient recovered with a shortened and deformed limb. This is just the class of case of which I was thinking when I emphasised the importance of thoroughly setting a fracture. In this case apparently there has been no thorough setting or keeping of the parts in apposition. The first thing to see to in such a case is relaxation of the muscles while extension is applied to the limb, and a good way to attain this object is shown in Fig. 1. The thigh is

FIG. 1.



flexed, and an assistant should pull on the thigh in the manner shown, the lower part of the thigh being firmly clasped and held perpendicularly to the recumbent body; the leg is then flexed to a right angle with the thigh so as to relax the muscles of the calf, and the surgeon, grasping the foot, can manipulate for fracture or dislocation. It is in this form of fracture of both bones of the leg that I would recommend you occasionally to flex the limb at the seat of fracture if you cannot get the bones into good position. This may seem a dangerous proceeding, but it is not so hazardous as one might think, though you must nevertheless be very careful to avoid making a simple fracture compound. In the average case, however, you can set the fracture in the way I have described without much trouble, and in compound fractures you can manage it with greater ease, and, moreover, you can insert your finger and feel if the two ends are in

FIG. 2.



accurate apposition. In compound fractures also you will be able to thoroughly investigate the presence of a spiculum of bone preventing accurate apposition, and no one would hesitate to push the bone out of the wound and saw off such a projecting spiculum. In cases of compound fracture, where you find, the moment after you have set the limb, that the bones become displaced again, it would be

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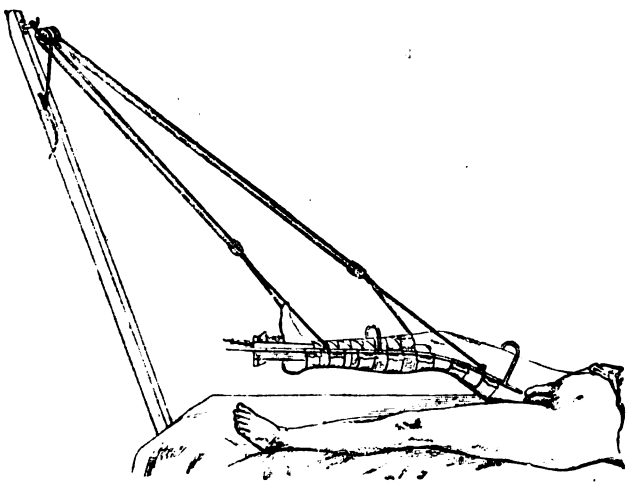
quite within the bounds of good surgery to divide the tendo Achillis subcutaneously, or to drill the two fragments and put in pegs or screws to hold the bones together; and I may say that this method of pegging or screwing has been recommended by an enterprising surgeon not only for compound but also for simple fractures. But I cannot conceive how anyone can believe that it is justifiable to convert a simple into a compound fracture, and of this I am quite certain: that the majority of surgeons for the present will remain content with the usual methods of treatment.

The tendency of the lower fragment to drop back with the foot is best met by the use of a back splint, and I know of none better than what is commonly called Arnold's splint (Fig. 2). If the foot is carefully bandaged to the upright foot-piece, and then extension made until the fracture is properly set, the upper fragment can be fixed to the splint by a broad band of adhesive plaster, and a bandage carried over it and above the knee. The side splints, which are subsequently applied with webbing straps, help to keep the bones in position, and the inner border of the great toe should be in a line with the inner border of the patella. This afternoon I called your attention in the wards to a recent fracture of the tibia, where I was not quite satisfied with the subcutaneous line of the bone; I therefore asked my house surgeon to raise the foot a little, and immediately this was done the fragments dropped into position, and the improvement was obvious. The importance of thus raising the foot in oblique fractures of the tibia is not sufficiently recognised; it is a valuable point to remember, and I learnt it myself from Mr. Jonathan Hutchinson.

Returning to the case of the man with both thighs fractured, let us briefly consider how fractures of the thigh should be treated. The particular method used depends to a great extent on the views of the individual surgeon, and I am not prepared to say that there is any very special advantage in one treatment over another. Provided you will only attend carefully to certain rules, you may perfectly well expect equally good results from different methods. In my own wards, as a general rule, and in accordance with local tradition, Liston's long splint with a perineal band is the method usually adopted, and its results are quite satisfactory. Of course, there is no hard-and-fast rule, and here is a case in point where the method of weight-extension was more convenient. It would be a little awkward to put up a fracture of both thighs with Liston's splints, unless you used an apparatus such as Bryant's, consisting of two long splints and a cross-bar, the

FIG. 3.

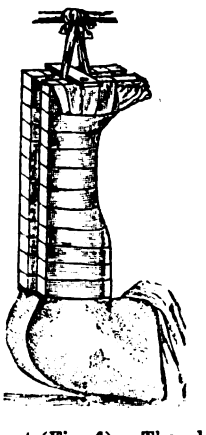


extension being made by an indiarubber accumulator. I am quite content, however, to treat a case of this kind with weight-extension, using retentive splints around the fracture; but then there are two or three points to which you must give particular attention. The plaster by which the extension is maintained must be taken above the knee. This is not so well known as it should be; for you occasionally find that a house surgeon has applied the plaster up the leg, but has stopped below the knee, the result being that the knee-joint is pulled upon and possibly damaged, whereas, if the plaster be continued above the knee, you are applying weight-extension to the fractured bone, the necessary counter-extension being obtained by the weight of the patient's body. Sometimes it is found necessary to raise the foot of the bed, but usually the weight of the patient's body is sufficient, and it is seldom that you find yourself reduced to the necessity of using a perineal band attached to the head of the bed, unless in cases of fracture in children.

Hodgen's splint (Fig. 3) is much in use at Guy's Hospital. There is a strong bar from the foot of the bed, and from that bar, which projects away from the bed, is arranged a pulley connected to a wire splint in which the limb is supported by pieces of flannel attached to the bars. It is not sufficient that the limb should be simply lying in the splint; there is, in addition, plaster extension carried well up to the thigh and maintained by cross straps in the same way as if the leg were straight. It is said that by using this method of Hodgen the muscles of the calf and of the thigh are relaxed, and that the limb is therefore in a better position for the treatment of the fracture. I have asked patients treated with this apparatus whether it were comfortable, and they have said it was so; but, speaking for myself, I do not think the advantages claimed for it are sufficiently clearly proved, and it has never been much used in this hospital.

Let me here remind you of another method, which I have not lately been able to illustrate practically in my wards—a method of treatment of children with fracture of the thigh

FIG. 4.



invented by Mr. Bryant (Fig. 4). The child is suspended by its feet from a cradle, with splints on the broken limb, but both limbs are suspended for convenience, and extension is obtained by the weight of the child's body falling into the bed. The convenience of the position is very great, for the buttocks are well exposed, and the child can be easily kept clean.

Let us now consider these cases from the nurse's point of view. The management of the bed-pan is an important matter, and in the ward this afternoon I directed your attention to a very convenient plan, that of using a divided mattress. The division is made opposite the buttocks of the patient, and the interval is occupied by a cushion, which can be removed for the introduction of the bed-pan. Of course you can have regular invalid beds for these cases of fracture, such as are advertised in the journals; but these are all expensive and not adapted for hospital work, and I consider the plan of dividing the mattress an easier and better method.

We have, however, to consider the patient as well as the fracture, and you must bear in mind that your patient has been damaged by the accident, in some cases considerably damaged, and you have to treat that damage as well as the fracture. Your patient may be a man in good health, perhaps temperate, perhaps not; for to any inquiries you make on this subject you can usually anticipate emphatic denial of any excess. But you may find, as evening comes on, that your patient's temperature rises; that happens in any case of simple fracture, and you need not therefore be alarmed. Still if the temperature rises three or four degrees and your patient becomes restless—perhaps tries to get out of bed and kicks about the uninjured leg—then you have to deal either with a case of true delirium tremens, especially if your patient's health be undermined by drink, or with a

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case of traumatic delirium, which may occur in any patient. In the case of traumatic delirium the patient seldom becomes violent, but is wandering and excitable. After a dose of morphia subcutaneously he will probably go off to sleep and do well, but if it be a drunkard who has a fracture you may find that he developes delirium tremens. The patient gets into a nervous, shaky condition, and after a day or two (the second night is usually the time) he becomes very violent and unruly, kicks about with his sound leg, displaces the apparatus for the fracture, perhaps pulls it off, and you will find the fracture dangerously disturbed. These cases are extremely troublesome to treat. In my student days we used to treat them with opium and brandy, and most of them died. Nowadays we give them chloral hydrate combined with bromide of potassium, and repeat it every few hours till the patient is quiet, at the same time giving him plenty of liquid nourishment and his beer. I say, "Give this class of patients beer" advisedly; they have probably been accustomed to a great deal of gin and other spirit as well as large quantities of beer, and if you cut them off these stimulants altogether the want is severely felt, and the result is unsatisfactory. If, then, you give them their beer and follow it up with a smart purge, as a rule you will find that the appetite returns and you get your patient through the attack.

In the treatment of fractures there is another point to be well borne in mind. On visiting a patient the evening after a fracture it is a good rule always to carry a catheter, as it may save going back for it; and you should never omit to inquire whether the bladder has been emptied. A man may have nothing wrong with his urinary organs, but after a fracture may be unable to micturate, and if left all night unrelieved will be in great distress and run a possible chance of cystitis. If the patient, therefore, has been some hours without emptying his bladder, pass a soft catheter and relieve him; he will sleep comfortably, and next morning will be probably quite able to pass urine himself. Another point I would lay stress on is that you should be careful about the patient's bed. You know, of course, there is a great variety in beds; but, if you can, have a narrow bed with horse-hair mattresses. With fairly well-to-do people you can telegraph to London for a single iron bedstead and two horsehair mattresses; it is only a matter of waiting a few hours, and not much expense. To treat a fractured thigh on an old-fashioned four-post bedstead with a feather bed is an almost impossible task. The advantages of having a single bed are that the "four-poster" can be removed from the room, thereby very much increasing the air space, and that the surgeon and nurse can so much more easily deal with the patient; but I am afraid you will not always be able to have horsehair mattresses, and in the houses of the poor you may have to be content with a flock mattress, which is not such a bad mattress to treat a fracture on, or you may have to manage with a straw palliasse. If you can have your patient on a flock mattress with a palliasse under that, he ought to do well; but in any case you must discard a feather bed, for the patient sinks down into it, and it is as impracticable as it is harmful. The use of fracture boards is not unusual in the treatment of these cases; boards are slipped in between the mattresses to make sure that the patient does not sink down too deeply, and this is important in cases where you have a heavy patient. The arrangement may be one large board the size of the mattress or separate boards inserted between the mattresses.

I now come to the consideration of the cleanliness of the patient and the state of his back. A good deal depends on the nurse. With a good nurse who understands her work the patient will be kept dry; the urine will be properly looked after, and even if the patient is an imbecile, passing everything under him, still a good nurse will keep everything right—but I hope you will not have many patients of that description. The best plan is to turn the patient on to his side and let the nurse wash the buttocks and back, and then dust them well over with some powder—oxide of zinc, for example, or the more common violet powder—preventing in this way any irritation. Always remember that if you once let the back get sore you will probably not get it well again, and that it is a very serious matter for the patient. Still, with every care the skin may become red, and it is well in that case to protect it. "Papier Fayard" is what I often advise; it is an unirritating paper plaster and very cheap, or you may prefer to use something thicker—as, for instance, plaster spread on kid or leather. The skin can also be hardened by rubbing it with a mixture of brandy and oil. If, however, your patient complains of his back, and on examination you find a black slough forming in the skin with unhealthy discharge beneath, you know then you are in for a bed-sore; and sometimes these sores rapidly increase in size and result in the death of the patient. Now when a bed-sore has reached that state nothing can be done till the slough is removed, and the best way to do that is to apply an old-fashioned linseed poultice well sprinkled with iodoform and to blow iodoform into the sore itself. After the slough has separated, stop the poulticing and stimulate the ulcer with red wash or some slightly stimulating ointment, and in that way you may hope to heal the bed-sore, though it will seldom become quite healed until the patient is able to get out of bed.

Remember also that elderly people are very apt to have some congestion of the lungs. The mere position in bed conduces to hypostatic congestion of the lungs, and if that congestion is allowed to continue it is apt to end in a low form of pneumonia, which may carry off the patient. In your cases of fracture, then, in old people, and especially in the winter months, if you find your patient suffering from chronic bronchitis, you must remember how the position aggravates the condition. For myself, in cases like this I encourage the patient to sit up as much as possible during the day, and with an ordinary fracture of the leg there is no reason why the patient should not be propped up, so that the passive congestion may be relieved by position and the bronchitis by expectoration. If, however, it is a case of fracture of the thigh, and especially if the fracture be high up, the difficulty is increased, but still you can support the patient's neck and the upper part of the back and help him to get rid of some of the mucus clogging his lungs.

The proper management of the patient's bowels still remains for consideration. In any patient kept in bed the bowels are liable to become costive and the liver congested, and particularly is this the case with the class of patients met with in hospital practice. Take, for instance, the case of a robust, healthy man who has met with an accident; after the first day or two he has practically nothing the matter with him, and he takes his food freely, the probability being that it is much better food and more of it than he has been accustomed to. The natural result is that his liver becomes congested and his bowels costive, and every now and then a patient like that gets a slight attack of jaundice simply because he has overeaten himself. The proper treatment then is to keep the bowels regular, but not purged. I find that the compound rhubarb pill answers very well; the patient has one or two free evacuations and feels very much better. I do not think it is wise to worry the patient's bowels with saline purges, and this particularly applies to elderly people, who probably do not over-load their stomachs with food.

I have now gone over most of the practical points in connexion with fractures of the lower limb, but have purposely avoided going into the details of each fracture, because I wished to-day to bring before you the more important points of practical utility bearing on the clinical aspect of the subject.

ST. MARY'S COTTAGE HOSPITAL, NORTHAM, SOUTHAMPTON.—The annual report of this hospital, which is devoted entirely to patients suffering from ulcers of the leg and diseases of the skin, shows that the new cases during the year ended Sept. 30th, 1895, comprised 420 out-patients and six in-patients, and that on Sept. 30th there remained under treatment 104 out-patients and one in-patient. The statistics, however, do not distinguish between the cases of ulcerated leg and those of skin disease. The year's income was £366, and the expenditure £370.

THE ROYAL HOSPITAL, RICHMOND.—A dinner in aid of the building fund of the Royal Hospital, Richmond, took place at the Star and Garter Hotel, Richmond, on Nov. 18th, 1895, H.R.H. the Duke of Cambridge in the chair, and subscriptions to the amount of £1587 were announced. The expenses incurred in making the necessary arrangements were less than £84, being only a fraction over 5 per cent. of the sum realised. The most munificent donations were those of Mr. Andrew Pears (£500) and Mr. J. H. Hilditch (£100). The hospital committee hope that the Princess May's ward for children will be opened early this year by H.R.H. the Duchess of York.

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A Contribution

TO

MEDICAL HISTORY: THOMAS DOVER, M.B. (OF DOVER'S POWDER), PHYSICIAN AND BUCCANEER.

Being an Address delivered before the Historical Club of the Johns Hopkins Hospital, Baltimore, U.S.A.,

BY WILLIAM OSLER, M.D., F.R.C.P. LOND.,
PROFESSOR OF MEDICINE, JOHNS HOPKINS UNIVERSITY.

As Sir Thomas Browne remarks in the *Hydriotaphia*, "The iniquity of oblivion blindly scattereth her poppy, and deals with the memory of men without distinction to merit of perpetuity." Thus it happens that Thomas Dover, the medical man, has drifted into our modern life on a powder label (to which way of entering the company of posterity, though sanctified by Mithridates, many would prefer oblivion, even to continuous immortality on a powder so potent and palatable as the *Pulvis ipecacuanhæ compositus*); while Thomas Dover, the Buccaneer, third in command, one of the principal owners, and president of the council of the *Duke* and *Duchess*—privateers of the ancient and honourable city of Bristol—discoverer of Alexander Selkirk (the original Robinson Crusoe), in spite of more enduring claims on our gratitude, has been forgotten. Of the facts of Dover's life very little is known. Munk[1] states that he was born in Warwickshire about 1660, that he was a Bachelor of Medicine of Cambridge, on the authority of the author of the "Athenæ Cantabrigenes," but that his name does not occur on the roll of the graduates. After taking his degree he settled in Bristol, and, having made money, joined with some merchants in a privateering expedition. "On Dover's return to England he resumed practice at Bristol, and from the number of patients he says he visited each day during an epidemic of the fever he must have obtained the confidence of the inhabitants of that city." In 1721 he settled in London and was admitted a Licentiate of the Royal College of Physicians. He resided in Cecil-street, Strand, but in the latter part of 1728 he removed to Gloucestershire, where he lived for four or five years, when he finally settled in London, at first in Lombard-street, and afterwards in Arundel-street, Strand, where he died probably in the latter part of 1741 or the beginning of 1742. In the "Dictionary of National Biography" essentially the same details are given by Dr. Norman Moore. In his work, "The Ancient Physician's Legacy," Dover often speaks with veneration of Sydenham as his master, and in his description of the small-pox he says "whilst I lived with Dr. Sydenham," so that he was probably a house pupil of the great physician, who was at the height of his fame at the very time we may suppose Dover to have been a student of medicine. As on the title page of the first edition of the "Legacy," 1732, he speaks of forty-nine years of practice, he probably took his degree in 1683. Apparently he never proceeded to a doctor's degree, since he speaks of himself as a "poor Bachelor of Physic." On the title page of the first edition, however, the letters "M.D." occur after his name. We know really nothing of Dover's life until he appears as one of the promoters of a privateering expedition to the South Seas in 1708. In this he was associated with a group of Bristol merchants, among whom were Alderman Bachelor and Sir John Hawkins. Two ships, the *Duke* and the *Duchess*, were fitted out with great care. Dover went as third in command, being styled Captain Dover, and as owner of a very considerable share of both vessels he was president of the council and had a double voice in the deliberations. The days of the buccaneers were almost numbered, but there was in Bristol at this time one of the last, and one of the most famous, of the old South Sea captains, William Dampier, a man who knew more of the Spanish Main and of the Pacific than anyone living. He had returned recently from a disastrous voyage, and agreed to accompany Captain Woodes Rogers as pilot of the expedition. In October, 1708, the ships—

> "..... sailed against the Spaniard, with his hoard of plate and gold,
> Which he wrung with cruel torture from the Indian folk of old"

—in which words Charles Kingsley well expresses the feelings which animated these highwaymen of the sea. The narrative of the voyage is told by Captain Woodes Rogers in "A Cruising Voyage Round the World, 1708–1711," London, 1712. The expedition was rendered memorable by the discovery of "Robinson Crusoe," which is thus told in the words of Captain Rogers: "We arrived at the Island of Juan Fernandez on the first of February, 1709, and having a good observation the day before, when we found our latitude 34° 10′ S. In the afternoon we hoisted out our pinnace, in which Captain Dover set off to go on shore, though not less than four leagues from the ship. As it grew dark we observed a light on shore, which some were of the opinion was from our boat; but it was evidently too large for that, and we hung up a light to direct our boat, firing our quarter gun, and showing lights in our mizen and fore shrouds that our boat might find us, as we had fallen to leeward of the island. Our boat came to board again about two in the morning, having turned back on seeing the light ashore when within a league, and we were glad they had got off so well, as it now began to blow. We were all convinced that the light which we had seen was from the shore, and therefore prepared our ships for an engagement, supposing it might proceed from some French ships at anchor, which we must either fight or want water. All this stir and apprehension, as we afterwards found, arose from one poor man, who passed in our imagination for a Spanish garrison, a body of Frenchmen, or a crew of pirates, and it is incredible what strange notions some of our people entertained about this light; yet it served to show their tempers and spirits, and enabled us to guess how our men would behave in case there really were enemies on the island.

"While under these apprehensions we stood to the back of the island in order to fall in with the southerly wind till we were past the island; then we stood back for it again, and ran close aboard the land that begins to form its N.E. side. The flaws came heavily off the land, and we were forced to reef our topsails when we opened the middle bay, where we expected to find our enemy, but all was clear and no ships either there or in the other bay near the N.W. end. These are the only bays in which ships can ride that come here for refreshments, the middle one being the best. We now conjectured that there had been ships here, but that they had gone away on seeing us.

"About noon of the second of February we sent our yawl on shore, in which was Captain Dover, Mr. Fry, and six men, all armed; and in the meantime we and the *Duchess* kept turning in, and such heavy squalls came off the land that we had to let fly our topsail sheets, keeping all hands to stand by our sails, lest the winds should blow them away. These flaws proceed from the land, which is very high in the middle of the island; but when they passed by we had little or no wind. As our yawl did not return we sent the pinnace well armed to see what had occasioned the yawl to stay, being afraid there might be a Spanish garrison on the island, who might have seized her and our men. Even the pinnace delayed returning, on which we put up the signal for her to come back, when she soon came off with abundance of crayfish, bringing also a man clothed in goat skins, who seemed wilder than the original owners of his apparel. His name was Alexander Selkirk, a Scotsman, who had been left here by Captain Stradling of the *Cinque Ports*, and had lived alone on the island for four years and four months. Captain Dampier[2] told me he had been master of the *Cinque Ports*, and was the best man in that vessel, so I immediately agreed with him to serve as a mate in the *Duke*. During his stay he had seen several ships pass by, but only two came to anchor at the island, which he found to be Spanish, and therefore retired from them, on which they fired at him, but he escaped into the woods. Had they been French he would have surrendered to them, but chose rather to run the risk of dying alone on the island than fall into the hands of the Spaniards, as he suspected they would either put him to death or make him a slave in their mines. The Spaniards

[1] Roll of the Royal College of Physicians, vol. ii.

[2] Selkirk had been sailing master under Dampier in his expedition which left England in May, 1703, and had been put ashore on the island at his own request. Dampier's expedition was unsuccessful, and "the merchants were so sensible of his want of conduct that they resolved never to trust him any more with a command."

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had landed before he knew what they were, and came so near him that he had much ado to escape; for they not only shot at him, but pursued him into the woods, where he climbed up a tree, at the foot of which some of them made water and killed several goats, yet went away without discovering him.

"He told us he was born in Largo, in the county of Fife, Scotland, and was bred a sailor from his youth. The reason of his being left there was a difference with Captain Stradling, which, together with the ship being leaky, made him at first rather willing to stay here than to continue in the ship; and when at last he was inclined to have gone the captain would not receive him. He had been at the island before to wood and water, when two of the men were left upon it for six months, the ship being chased away by two French South Sea ships; but the *Cinque Ports* returned and took them off, at which time he was left. He had with him his clothes and bedding, with a firelock and some powder and bullets, some tobacco, a knife, a kettle, a Bible, with some other books, and his mathematical instruments. He diverted himself and provided for his sustenance as well as he could, but had much ado to bear up against melancholy for the first eight months and was sore distressed at being left alone in such a desolate place. He built himself two huts of pimento trees, thatched with long grass and lined with goat skins, killing goats as he needed them with his gun so long as his powder lasted, which was only about a pound at first. When all this was spent he procured fire by rubbing two sticks of pimento wood together. He slept in his larger hut and cooked his victuals in the smaller, which was at some distance, and employed himself in reading, praying, and singing psalms, so that he said he was a better Christian during his solitude than he ever had been before, and than, as he was afraid, he would ever be again.

"At first he never ate but when constrained by hunger, partly from grief, and partly for want of bread and salt. Neither did he then go to bed till he could watch no longer, the pimento wood serving him for both fire and candle, as it burned very clear and refreshed him by its fragrant smell. He might have had fish enough, but would not eat them for want of salt, as they occasioned a looseness, except crayfish, which are as large as lobsters and are very good. These he sometimes boiled, and at other times broiled, as he did his goat's flesh, of which he made good broth, for they are not so rank as our goats. Having kept an account, he said he had killed 500 goats while on the island, besides having caught as many more, which he marked on the ear and let them go. When his powder failed he ran down the goats by speed of foot, for his mode of living, with continual exercise of walking and running, cleared him of all gross humours, so that he could run with wonderful swiftness through the woods and up the hills and rocks, as we experienced in catching goats for us. We had a bulldog, which we sent along with several of our nimblest runners to help in catching the goats, but he outstripped our dog and men, caught the goats, and brought them to us on his back. On one occasion his agility in pursuing a goat nearly cost him his life, as, while pursuing it with great eagerness he caught hold of it on the brink of a precipice, of which he was not aware, being concealed by bushes, so that he fell with the goat down the precipice to a great depth, and was so bruised and stunned by the fall that he lay senseless, as he supposed, for twenty-four hours, and when he recovered his senses found the goat dead under him. He was then scarcely able to crawl to his hut, about a mile distant, and could not stir out again for ten days.

"He came at length to relish his meat well enough without bread and salt. In the proper season he had plenty of good turnips, which had been sowed there by Captain Dampier's men, and had now spread over several acres of ground. He had also abundance of cabbage from the cabbage palms, and seasoned his food with the fruit of the pimento, which is the same with Jamaica pepper, and has a fine flavour. He found also a species of black pepper called 'malageta,' which was good for expelling wind and curing gripes.

"He soon wore out his shoes and other clothes by running in the woods, and being forced to shift without them, his feet became so hard that he ran about everywhere without inconvenience, and it was some time after he came to us before he could wear shoes, as his feet swelled when he first began to wear them. After he had got better of his melancholy he sometimes amused himself with carving his name on the trees, together with the date of his being there and the time of his solitary residence.

"At first he was much distressed with cats and rats, which had bred there in great numbers from some of each species which had got to shore from ships that had wooded and watered at the island. The rats knawed his feet and clothes when he was asleep, which obliged him to cherish the cats by feeding them with goat's flesh, so that many of them became so tame that they used to lie beside him in hundreds and soon delivered him from the rats. He also tamed some kids, and for diversion would at times sing and dance with them and his cats, so that by the favour of Providence and the vigour of his youth (for he was now only thirty years of age) he came at length to conquer all the inconveniences of his solitude and to be quite easy in his mind. When his clothes were worn out he made himself a coat and a cap of goat skin, which he stitched together with thongs of the same cut out with his knife," &c.

Subsequently the expedition sacked the two cities of Guaiaquil, in the assault on which Dover led the van. They took several prizes and cruised about the coast from Peru to California waiting for treasure ships. Of one of the larger prizes, which they named the *Bachelor*, after the Bristol Alderman doubtless, Dover took command as chief captain. They then sailed across the Pacific to Batavia, where they refitted, and in October, 1710, sailed for England, which was reached in 1711. Captain Thomas Dover returned from the South Seas in 1711 a wealthy man; the expedition had been unusually successful, having realised the enormous sum of £170,000. To Dover, who is stated to have been the owner of a very considerable part of both ships, fell a large share of the spoils. Alexander Selkirk as mate received £800 prize money. Harris[3] makes the following comments on the voyage: "It has been universally allowed by such as are proper judges of such expeditions that there never was any voyage of this nature so happily adjusted, so well provided in all respects, or in which the accidents that usually happen in privateers were so effectually guarded against." This he attributes to the abilities of the gentlemen of Bristol, and remarks that it was owing to this expedition that the spirit of privateering in the South Seas was not totally lost in England. The large sums realised had evidently made an enduring impression, and Harris adds: "I might, perhaps, go too far should I assert that this voyage gave rise to the South Sea Company; but this much I can safely say, that the success of this voyage was what the patrons of that company chiefly insisted upon in their defence, when the plan of it was attacked as insufficient and chimerical."

In 1712 Dover must have been about fifty years of age, and quite ready to enjoy a period of pleasure. Where he settled or what he did we do not know, but it is certain that three years such as he had spent at sea were no preparation for practice. Possibly he travelled, and in the introduction to the "Ancient Physician's Legacy" he scoffs at the medical men who have travelled "far at home"; "let them take a trip to Hungary and see the mines," speaking and describing scenes as though he had been there himself. He refers not infrequently to his wide knowledge of the globe, and in one place says, "If travelling be necessary to make an accomplished physician I am very sure that I have travelled more than all the physicians of Great Britain put together." In 1721, as mentioned by Munk, he was admitted Licentiate of the Royal College of Physicians, a qualification which enabled a man at that time to practise in and six miles round Westminster. It is doubtful how long he remained at this time in London; at any rate, he states[4] that he lived in Gloucestershire in the years 1728 and 1729. None of the cases which he mentions in his book are of this period. His permanent settlement dates from about 1731. In an edition of the "Ancient Physician's Legacy," published in 1733, in replying to certain strictures on the use of quicksilver he says, "I challenge you to show when I have lost three patients for the past five years, when I was first called either in acute or chronic cases (though I have settled in town about eighteen months)." At this time Dover was well on in years, about or above seventy, a late age at which to begin practice in London. To abet his laudable endeavours he resorted to the time-honoured plan of writing a book. Of the popular or semi-popular treatises on medical subjects so common in those days a few were by very able men; for example, George Cheyne's "Essay on Health and Long Life" forms an exception to Latham's sweeping criticism on books of this class—quoted by W. A. Greenhill—"They are all bad, and many dishonest." A favourite plan was to

[3] Voyages. [4] Ancient Physician's Legacy.

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write a treatise on some mineral water, and to laud the virtues of some particular Spa. Smollett, who knew so well the trials, vexations, and disappointments incident to beginning medical life in London, has sketched in strong lines the condition of the profession in the fourth and fifth decades of the century. He, too, had made an unsuccessful attempt to introduce himself in an "Essay on the External Use of Cold Water," &c. Dr. L——n with his "hotch-potch of erudition and extravagance," and the pedantic doctor in "Peregrine Pickle," in whom he satirised the learned Dr. Akenside, were well-known types; while in "Count (Dr.) Fathom" the "mystery" of the sons of Pæan, as he terms them, is mercilessly exposed. Among the "means used to force a trade"[5] Smollett mentions "the insertion of cures by way of news in the daily papers," the erection of a "hospital, lock, or infirmary by the voluntary subscription of his friends, a scheme which had succeeded in a miracle with many of the profession, who had raised themselves into notice on the carcases of the poor." To understand Dover's relations with the apothecaries (to which subsequent reference will be made) the reader must know that they were the general practitioners of that day and dispensed their own medicines, but in serious cases always called in a physician or a surgeon. Smollett's account of the practice "parcelled out into small enclosures, occupied by different groups of personages," who tossed the ball (the patient) from one to another, would almost fit modern usage, in which a patient is sometimes tossed in a circle from specialist to specialist until he returns with an inventory of his local woes to the consultant from whom he started. In Smollett's days the patient had to be content with three, except in the cases requiring a midwife. "The apothecary being summoned, finds her ladyship in such a delicate situation that he declines prescribing, and advises her to send for a physician without delay. The nomination of course falls to him, and, the doctor being called, declares the necessity of immediate venesection, which is accordingly performed by the surgeon of the association."

While meriting the general criticism of Latham, the work with which Dover trusted to reach practice had many important qualifications for success. It appealed directly to the public in a taking way, not alone in the main title, "The Ancient Physician's Legacy to His Country; being what he has collected himself in Forty-nine Years of Practice," but in asserting that the diseases incident to mankind are described in so plain a manner "that any person may know the nature of his own disease, together with the several remedies for each distemper faithfully set down." It is expressly issued as a popular work on medicine, "Designed for the Use of all Private Families." The writer's name is given, Thomas Dover, M.D., and the work was printed for him and sold by A. Bellesworth and C. Hitch in Paternoster-row, &c. (giving the names of two other booksellers), 1732, price, stitched, 5*s*. This is the title page, date, &c., of the first edition, a copy of which is in the British Museum. In the "Dictionary of National Biography" the date of the first edition is given as 1733. The mistake is due to the fact that in this year appeared an edition of the "Legacy" not stated on the title-page to be a second edition. This is the earliest copy in the library of the Royal Medical and Chirurgical Society and in the Radcliffe Library. The name is spelt *Dovar*, and the title-page is different. Forty-nine years of practice are still claimed (not fifty), and it is stated that "the extraordinary effects of mercury are more particularly considered." After the writer's name, Thomas Dovar, M.D., are the words, "with remarks on the whole by a learned physician." There is also a translation of a treatise on mercury "by the learned Belloste." It was printed for the relict of the late R. Bradley, F.R.S. The second and third editions I have not seen; this was probably one of them. The fourth and fifth editions also appeared in 1733, the sixth in 1742, the seventh in 1762, and the eighth, the last so far as I know, in 1771.

"The Ancient Physician's Legacy," in the language of one of Dover's correspondents, "made a great noise in London, and was the subject of almost every coffee-house." It contains a description in plain language of about forty-two disorders, illustrated by cases, the majority of which are made to attest in some way to the author's skill. The later editions abound in letters from grateful patients extolling his virtues. The pictures of disease are scarcely such as might have been expected from a pupil of Sydenham. The account of consumption or "phtisis," as he spells it, is very meagre, from the hand of a contemporary, possibly a friend of the author of the "Phthisiologia." There are evidences throughout that the book was written "for revenue purposes only," and the spirit of the buccaneer was not dead in the old man, as no occasion is missed either to blow his own trumpet or to tilt a lance at his colleagues. "Let me but come to People as early in this distemper [dropsy] as they generally apply for relief from other physicians, and it shall be cured," &c. On page 18, in the section on gout, is given the formula of his famous powder. "Take Opium one ounce, Salt-Petre and Tartar vitriolated each four ounces, Ipecacuana one ounce. Put the Salt-Petre and Tartar into a red-hot mortar, stirring them with a spoon until they have done flaming. Then powder them very fine; after that slice in your opium, grind them to a powder, and then mix the other powders with these. Dose from forty to sixty or seventy grains in a glass of white wine Posset going to bed, covering up warm and drinking a quart or three pints of the Posset—Drink while sweating." The same formula is repeated in the subsequent editions. He says that some apothecaries have desired their patients to make their wills and settle their affairs before they venture upon so large a dose as from forty to seventy grains. "As monstrous as they may represent this, I can produce undeniable proofs where a patient of mine has taken no less a quantity than a hundred grains, and yet has appeared abroad the next day."

In the treatment of fevers he follows the practice of the "good Dr. Sydenham," for whose memory he professes "the greatest veneration." "In this Distemper, as in all other Fevers, I prescribe the cool Regimen, which must be followed in case Mankind prefer *Life* to *Death*, *Ease* to *Pain;* a short Fit of Illness to a long and tedious one; a good to a broken and shattered constitution, laying aside Blisters and all heating and poisonous Powders." In another place he says, "I would have cold bathing grow as universal inoculation." He waxes furious against the "Unhuman Method of Blistering," and invokes the authority of Radcliffe and "the honest Dr. Sydenham" against it. When living with Dr. Sydenham, Dover had small-pox. In the beginning he lost twenty-two ounces of blood and had a vomit. He went abroad until he was blind, and then took to bed. "I had no fire allowed in my room, my windows were constantly open, my bedclothes were ordered to be laid no higher than my waist. He made me take twelve bottles of small beer acidulated with spirit of vitriol every twenty-four hours."

The experiences of his travels are referred to frequently, and he mentions Asia, the East and West Indies, and Hungary in connexion with special points in practice. There is an account of the plague among the sailors of the *Duke* and *Duchess*, "when I took by storm the two cities of Guaiaquil, under the line, in the South Seas." The Ancient Physician's chief legacy to his country was quicksilver, which was his specific in almost every disease, and the use of which is vaunted in a most forcible manner in letters from patients. He ordered an ounce or an ounce and a quarter of crude mercury daily, believing that "it freed the patient from all vermicular diseases, opened all Obstructions, and made a pure Balsam of the blood." A Captain Harry Coit, who had lived by the Doctor's direction "on Asses' milk, Syrup of Snails, and such stuff," took for his cough and shortness of breath an ounce a day, and took altogether a hundred and twenty pounds weight. Dover says that he was called in derision "The Quicksilver Doctor." The "Legacy" stirred up an active pamphlet war, and for twenty years or more the merits of crude mercury were much discussed. If Dover's object in writing the work was to gain publicity, he could not have taken a better way than in his sharp comments on the physicians and apothecaries. The latter he assaults in terms which must have tickled the frequenters of the coffee-houses, among whom we are told the book made such a noise. "I never affronted any apothecary unless in ordering too little Physic; and curing a patient too soon is, in their way of thinking, an unpardonable Crime. I must confess I never could bring an apothecary's bill to three pounds in a fever; whereas I have known some of their bills in this disease amount to forty, fifty, and sixty Pounds. If they can't cure with less charges I can't forbear saying that I have the same opinion of their Integrity as I have of their Understanding." The doctrine of the apothecary was that "'Tis your Writing-Physician only who has a Title to a Fee." Dover takes strong and most

[5] This seems to have been a stock phrase; Cheyne uses it in his "English Malady," in an autobiographical note.

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reasonable ground against the constant varying of prescriptions when there is no occasion for it. The hostility of the apothecaries to him, according to his own account, arose from his being "always inviolably attached to the Interest and Welfare of my Patient and entirely regardless of these Gentlemen's unwarrantable Gains." These attacks did not pass unnoticed, and in 1733 H. Bradley, surgeon, criticises the "Ancient Physician's Legacy," and makes some "animadversions on his scurrilous Treatment of the Professors of Physic in general, with a word or two on the uselessness of his Legacy to all Private Families." Daniel Turner, "of the College of Physicians," who in the same year "impartially surveys the 'Ancient Physician's Legacy,'" refers to the Guaiaquil incident in the following terms: "I think the Doctor had much better have left out his bravado of having taken two cities by storm, unless he thinks it an honour to a physician to kill and slay, and after to plunder the innocent, those who never wronged him, and to carry off the spoil; a good prelude, this, to the bloodshed after among his own men." (Dover had had them bled copiously for the plague.) Turner hints that Dr. D——v's quicksilver did not a little to hasten the end of the celebrated tragedian, Barton Booth, to whom he had given between May 3rd and 8th within two ounces of two pounds of mercury.

Like his master, Dover's only affiliation with the Royal College of Physicians was through the minimum qualification of the Licence. Sydenham and Morton, the two most distinguished English clinical physicians of the seventeenth century, were regarded as innovators and "sectaries" by the heads of the College, who, as Sydenham remarks, took fire at his attempts to reduce practice to greater easiness and plainness. The coolness and moderation of the master were not imitated by the "Ancient Physician," who in the sixth edition attacks the gentlemen of the faculty, and warns unwary people "not to take every graduate for a physician nor a clan of prejudiced gentlemen for oracles." He added to his legacy the "Statuta Moralia," or, as he terms it on the title-page, "the moral conversation of the College of Physic in Latin and English, by way of appendix, together with a Digression." Dover affirms boldly that the whole purport of the "Conversation" is to conceal their ignorance and to deceive their miserable patients, but he avers his desire is "more to do justice to mankind than to irritate and provoke a Set of Gentlemen who, like moles, work underground lest their practices should be discovered to the Populace." He again refers to the relations of the apothecaries with the physicians in the following terms: "The Apothecaries, generally speaking, have it in their Power to recommend the Physician, which is the wrongest Step the Patient can possibly take: The Physician, to gratify the Apothecary, thinks himself obliged to order ten times more Physic than the Patient really wants, by which means he often ruins his Constitution, and too often his Life; otherwise how is it possible an Apothecary's Bill in a Fever should amount to Forty or Fifty or more Pounds? Nay, I have been credibly inform'd, that several of those Apothecaries have declared they never would call in a Physician, but what should put Fifteen or Twenty Shillings a Day into their Pockets: What must the Conscience of such Physicians be, that would forfeit their Reputation, and everything that is dear to them, by cheating for others? I would venture to say, Neither Sydenham's nor Radcliffe's Bills did ever amount to Forty Shillings in a Fever, and yet they recover'd their Patients without the Rule, at present prescribed, of Vomiting, Bleeding, and multiplying Blisters in all Cases whatsoever; so since this is to be their Rule of Practice, they are very indifferent in their Enquiries what the Patient's Disease is."

Dover continued to practise in London, and in the seventh edition of the "Ancient Physician's Legacy" there is a letter to him from Catherine Hood, dated Nov. 6th, 1738, in which she speaks of having consulted him in 1737. In 1742 appeared the sixth edition of the Legacy, which must have been issued by the author, as he speaks on the title page of fifty-eight years of practice. He is stated by Munk to have died in 1741 or 1742, probably the latter, but his name does not appear in the register of deaths in the *Gentleman's Magazine* in either of those years. Doubtless the old buccaneer, described "as a man of rough temper, who could not easily agree with those about him," was a striking figure as he passed along the Strand to the Jerusalem Coffee-house, where he saw his patients. A good fighter, a good hater, as, alas, so many physicians have been, his weaknesses and evil behaviour we may forget, but Captain Thomas Dover, who on Feb. 2nd, 1709, found "Robinson Crusoe," the world should not forget; and we also of his craft have cause daily to remember with gratitude the student and friend of the great Sydenham, who had the wit, in devising a powder, to remember his master's injunction: "Sine papaveribus, sine opiatis, et medicamentis ex iis confectis, manca et clauda esset medicina."

CASE OF A LARGE CYSTIC BRONCHOCELE NECESSITATING COMPLETE REMOVAL OF THE THYROID GLAND.

By SIR WILLIAM STOKES, F.R.C.S. IREL.,

SURGEON IN ORDINARY TO HER MAJESTY THE QUEEN IN IRELAND; PROFESSOR OF SURGERY, ROYAL COLLEGE OF SURGEONS IN IRELAND, &C.

THE following case, in which I removed an exceptionally large cystic bronchocele, is, as all such cases are, replete with surgical interest. For many of the notes of the case I am indebted to Mr. W. Taylor, late house surgeon to the Meath Hospital.

A woman aged thirty-three, single, suffering from a large tumour of the neck, was admitted into the Meath Hospital under my care on March 13th, 1895, having been recommended to me by Mr. J. H. Fergusson of Killigordon, co. Donegal. The patient stated that the tumour had existed

as long as she could remember, but that latterly it had greatly increased in size. On two occasions it had been tapped by Mr. Fergusson, which operations were attended with a sensible, though only temporary, diminution in its size. On her admission the tumour was found to be very tense but fluctuating, extending from the chin to the sternum in the middle line and outwards to points well

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behind the posterior margins of both sterno-mastoids. The chin rested on a sulcus on the upper margin of the tumour. Below, it appeared to pass downwards behind the sternum, which at the time of the operation I found it had done. The patient experienced latterly some difficulty in swallowing, especially solids, which she said always seemed to "stick" when they came opposite to the centre of the tumour. The diagnosis I made was that of cystic bronchocele, and I had no hesitation in recommending its excision. On March 20th, assisted by Sir P. C. Smyly, Mr. Hepburn, and Mr. Taylor, I removed the tumour. The patient having been anæsthetised by chloroform, I made in the middle line a vertical incision over it about three inches in length, and from the centre of this two incisions were made obliquely upwards and outwards, about one inch and a half in length. The skin flaps were then dissected off the tumour, which I then proceeded to enucleate. This was not attended with the difficulties I had anticipated, and which I had experienced in former excisions of the thyroid gland. The hæmorrhage was comparatively slight, and few vessels had to be ligatured until I reached the posterior aspect of the growth, at which situation many large vessels supplying it entered. These were carefully secured by double ligatures and the vessels divided between them. The only moment of much anxiety I had was when I was lifting up the portion of the tumour which had passed behind the sternum, as I feared it might have formed attachments to the sheaths of some of the great vessels at the root of the neck. Happily, these apprehensions were found to be groundless, and the tumour was removed without any untoward accident, leaving the trachea quite bare, and a large cavity behind the upper part of the sternum in which the transverse portion of the arch of the aorta and the great vessels of the neck with the left innominate vein could easily be seen. The wound was then thoroughly irrigated with a warm boric solution, and after being well dusted over with boracic acid its edges were brought together with very fine, carefully asepticised silk sutures, and a perforated glass drainage tube was inserted at the lower angle of the wound. After the operation the patient passed a quiet day and night, the only element of disturbance being a certain amount of nausea and occasional vomiting, due doubtless to the anæsthetic. On the following day, owing to there being evidence of considerable serous discharge, the wound was dressed. Its appearance was quite satisfactory, and the drainage tube was removed. During the convalescence of the patient the chief source of anxiety I had was owing to the development of an attack of broncho-pneumonia accompanied by considerable febrile disturbance; but on March 30th these symptoms subsided, the temperature (which had risen as high as 104° F.) was normal, and the wound had healed. From this time the patient's progress to recovery was uninterrupted, and she soon afterwards left for home in perfect health. As the removal of the thyroid gland was apparently a complete one I recommended the patient to take thyroid extract in small quantities daily, a suggestion which I hope is still being carried out. The last tidings received of the patient were all that could be desired.

The accompanying illustrations, taken from photographs, give faithful representations of the patient before and after the operation.

Dublin.

BRITISH GYNÆCOLOGICAL SOCIETY.—At the annual meeting, to be held on Thursday, Jan. 9th, 1896, the following resolutions of council (dated Feb. 28th and April 4th, 1895, respectively) will be submitted to the Fellows, with a view to their being added to the by-laws of the society:—1. That it is undesirable that any member of the medical profession practising homœopathy should be proposed as a Fellow of the society. 2. That it is contrary to the ethics of the British Gynæcological Society that any of its Fellows should advertise their publications or otherwise bring themselves before the notice of the public by advertising in any way through the medium of the lay papers. That circulars of the nature of an advertisement sent even to members of the medical profession generally would be regarded with disapprobation by the council.

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ON AN OUTBREAK OF PERI-ORAL ECZEMA IN THE EAST-END OF LONDON.[1]

BY THOMAS D. SAVILL, M.D. LOND.,

A MEDICAL OFFICER TO THE ROYAL COMMISSION ON VACCINATION; EXAMINER IN CLINICAL MEDICINE IN THE UNIVERSITY OF GLASGOW; CLINICAL ASSISTANT AT THE HOSPITAL FOR DISEASES OF THE SKIN, BLACKFRIARS.

IT should be stated at the outset that the skin affection about to be described has no relation whatever, in my judgment, with the epidemic skin disease to which I directed attention in November, 1891,[2] beyond its epidemicity and seasonal incidence. When cursorily examined the eleven cases which were brought to the Dermatological Society of Great Britain and Ireland as specimens of the disease on June 14th, 1894,[3] seemed to bear a superficial resemblance to one or two of the younger and milder cases of the epidemic skin disease; but further investigation has entirely dispelled the resemblance.

My attention was directed to this outbreak by Dr. Guy E. Palmer, lately resident medical officer of the Mildmay Hospital, who had many cases under his care among the children attending the Newcastle-street Board-school, Shoreditch; and I found, upon following up the cases and visiting their homes, that the disease was also prevalent among the children in the district around. The following paper is based on some 700 cases which I saw in that way. Their investigation has occupied my available time for the past eighteen months. I am much indebted to Dr. Palmer for affording me the opportunity of studying this interesting occurrence, and for the courteous and valuable facilities he afforded me in my investigations. The history of the outbreak in the school will first be given; then a narration of a few cases, followed by an account of the clinical features and diagnosis of the disease; and finally the etiology, bacteriology, and treatment.

It is not desired to show that this disease is new, nor, indeed, that it is uncommon. But by studying so large a number of cases at one time one is enabled to acquire a fuller knowledge of the disease and its causation than by the investigation of isolated examples. For instance, three important features are thus revealed: (1) the remarkable uniformity of the eruption in its appearance and locality; (2) the spread from person to person by contagion; and (3) that the disease is confined to children under fourteen years of age.

HISTORY OF THE OUTBREAK IN THE SCHOOL.

The Newcastle-street Board-school is situated in a densely populated part of the East-end of London, close to Shoreditch Church, and the scholars attend there daily between the hours of 9 and 12 in the morning and 2 and 4.30 in the afternoon, Saturday and Sunday excepted. The children live at home with their parents, and, though all are surrounded for the most part with the squalor of the East-end poor, the environments of their home-life differ considerably one from the other. In school the children are grouped into four divisions, their ages ranging from three to thirteen years last birthday. The classes they attend depend, for the most part, upon their intellectual attainment rather than their age. The four great divisions are as follows: (1) the infants' department (both sexes) age three to eight years; (2) the junior mixed division (both sexes), age seven to eleven years; (3) the senior girls', age between eight and thirteen; and (4) the senior boys', age between eight and thirteen. The number of scholars on the books averages a total of 1040.

In the early part of April, 1894, a teacher in the Junior Mixed Division noticed a boy to have a red, scurfy patch on his face which she thought to be ringworm. She consulted the senior teacher on the question, and they then found that ten or twenty of the children in every class of the Junior Mixed Division were apparently affected with the same disease. Some of the children were "very bad," and they complained of the itching and irritation. All the teachers thought it must be ringworm, excepting one, who thought it could not be this disease, because, as she informed me, the patches "were not white in the middle." The headmistress of the Girls' School noticed that the patches did not come out all at once, but that as one got better a fresh one appeared. She considered the chin to be "the favourite starting-place, whence the patches spread to the cheeks and elsewhere on the face. One child had a patch on the back of the hand, but as a rule only the face was affected." The disease next appeared in the Infants' Division in the same building. Soon afterwards it appeared among the senior boys in another building, and finally among the senior girls, who are in the same building as the Senior Boys' Division. On April 20th, and subsequently, batches of thirteen or more children were taken at a time to Dr. Guy E. Palmer, at the Mildmay Hospital close by, who painted the patches with iodine.

The disease continued to spread amongst the scholars in all classes, and, the numbers being so large, the teachers applied iodine themselves to some of the worst cases. This gave rise to serious objection on the part of the parents in the case of a girl, whose teacher thereupon went herself to the medical officer of the School Board (May 23rd) and reported to him that they had a large number of cases of a scurfy, red skin disease on the faces of the children, which seemed to be a sort of ringworm and was undoubtedly spreading in the school.

On June 4th three medical gentlemen came down and inspected nearly 300 children—viz., 100 taken indiscriminately from the older boys', 100 from the older girls', and 100 from the infants' division. None were examined from the junior mixed school. They informed the headmaster that they found about 4 per cent. attacked with impetigo *of the scalp*, a very few cases of ringworm; and that a large number of the children's heads contained lice. There were not, they said, more than 1 or 2 per cent. of ringworm cases, and in these the disease was on the scalp.

Fresh children continued to be attacked with the red patches on the face; and, at the suggestion of Dr. Palmer, some typical cases were sent to the London Hospital, where the facial patches were declared not to be ringworm.

On June 7th this gentleman kindly asked me to see the children, large numbers of whom were at this time under his care, and on June 8th I went to the hospital and school and examined a great many cases in consultation with him. I was informed on that occasion that about one-half of the school children had one after another been attacked by the disease. How near this estimate was to the truth may be seen from Table A (*v. infra*), which shows that on June 18th there were then 44·1 per cent. of the children actually suffering from the malady, without counting those who had recovered. Between June 18th and July 27th, when the holidays began and the school closed, many more children were attacked, and my own estimate would be that sooner or later during the spring and summer of 1894 nearly 60 per cent. of the children in that school were at some time affected.

I spent the greater part of June and July, 1894, in the East-end examining these children and following up the cases to their homes. Dr. Eddowes was also kind enough to see them with me on two or three occasions, and some were brought before the Dermatological Society of Great Britain and Ireland on June 14th, 1894.[4] Altogether I saw and examined some seven hundred children suffering from the malady—some at school, some at the hospital, and some at their own homes—some of whom attended school and others who did not. The eruption presented remarkable uniformity in its characters and distribution. The following histories present some typical examples and also some aberrant items of interest. The only children (four in number) of those I saw who were known to have patches elsewhere than on the face are here mentioned.

CASES.

Senior Boys' Division.

CASE 1.—A boy aged twelve, a pale, intelligent, clean, and tidy lad, stated that he had had rheumatic fever three

[1] A paper read before the Dermatological Society of Great Britain and Ireland on Nov. 27th, 1895.

[2] Transactions of the Medical Society, 1891-92, and a monograph published by H. K. Lewis, London.

British Journal of Dermatology, August, 1894, p. 244.

[4] Ibid

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or four times. He had when seen on June 8th, 1894, several patches on the face, chin, and neck, though none elsewhere. These were of a red or pink colour, slightly raised, flat, and covered with tiny scales and cracks in the epidermis. All the patches were quite dry; none were healing or white in the centre, and none had the border raised above the centre. The newer patches were more crimson, scaly, and cracked. The older ones looked simply like yellow, scurfy skin. There were in all about ten patches, ovoid or irregular in shape, varying in size from a threepenny piece to a shilling, and were distributed without marked symmetry round the orifices of the mouth and nose and on the neck. The hair and scalp of this child were perfectly clean and healthy, and there were no patches on any other part of the body. Microscopic examination of scrapings from the facial patches by Dr. Eddowes and myself failed to detect any trichophyton spores or mycelium. The patches itched a good deal, especially when wetted, and sometimes smarted, but otherwise he suffered no inconvenience. The boy stated he had had the disease more or less for about eight weeks, but the patches had come out successively, first on the right side of the neck, then on the cheek, a recent one on a level with the lobe of the right ear, scale was extremely rare—indeed, this was almost the only case I saw where such a condition occurred. By the 23rd another fresh, round, crimson patch, about the size of a shilling, had appeared under the chin; the outline was well marked, but not raised, and it was not healing in the centre. On this day I visited the lad's home. The family consisted of father, mother, a daughter aged twenty-three, a son aged twenty-one (none of whom were affected), and the patient, aged twelve, and occupied two badly ventilated first-floor rooms measuring about 10 ft. by 10 ft. by 7 ft. The mother, a respectable, intelligent woman, confirmed the lad's history and added that when the patches appeared on his face some weeks before her daughter exclaimed, "Look what a state W——'s face is in, we must not wash on the same towels as him"; and, "We thought it was ringworms." The peri-oral distribution suggested something going into or out of the mouth as a possible cause; so careful inquiry was made. The boy used to have bread-and-butter and tea for breakfast, and these often constituted his other meals also; sometimes rice and milk for dinner, and bread-and-butter for tea; sometimes a small piece of fish and fried potatoes for supper, and some meat once a week—on Sundays. His pallor and general health were quite accounted for by

and finally, only two days previously, an oval spot on the neck just below the lobule of the left ear (which does not appear in the sketch). When examined with a lens this recent patch could be seen, and could be felt to be slightly papular in texture; it had an abrupter margin than the others, though it was not at this time scaly (June 8th). By June 11th (sixth day) it had grown and become scurfy and flatter. On the 13th (eighth day) the bright crimson colour was fading a little, and the patch looked more cracked. (The above sketch was made of him on this day.) There was no alteration on the sixteenth day. By the twenty-first day it was quite flush with the surface, and the colour of the patch was orange-yellow, covered with scanty, powdery scales. Almost all trace of it had gone in five weeks. This patch was never submitted to treatment. When I saw the boy on June 15th a fresh patch had appeared on the right eyebrow, slightly red and scurfy. Photographs and scrapings for cultures were taken on this day. There was a little scale at the left corner of the mouth, as of vesicles, which had come during the preceding day or two and dried up. (See engraving.) This scale was removed for examination. (See below.) This definite formation of a his mode of life and the ill-ventilated atmosphere in which he spent his nights and part of his days. He was, however, cleaner than most of his class, and I was informed that he had a bath once a week and washed his hands and face two or three times a day, using "best yellow soap at 4*d*. a pound."

CASE 2.—A boy aged eleven, when seen on June 8th, 1894, had circular, slightly raised, red patches, with sloping borders, on the face and neck, chiefly round the mouth. The patches were irregularly ovoid, varying in size from one line to one inch. His head was perfectly clear, with the exception of some empty nits, and no other part of the body was affected. I saw him again on June 15th and 23rd at his home. It was a good class of house with four rooms, occupied by mother, father, and eleven children, of whom three, aged thirteen, eleven, and nine respectively, were affected with the patches. Sunlight soap was used by all the family, who seemed well-cared-for. The mother had first noticed the patches on the boy's face about Easter (March), and they had come out in succession first on the left side of the face and then on the right, as the others got better. The children had been successively attacked, the mother

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stated, "by catching it from one another". He complained of all the patches itching a good deal, and stated that he sometimes scratched them.

CASE 3.—A boy aged nine, when seen on June 8th, 1894, had patches precisely similar to those of the last case on his face, none elsewhere, and the head was clean and free from scurf. I visited his home on June 23rd. There were eight in the family, three of whom were affected with the disease. The mother expressed her belief that "they was ringworms"; at any rate she was sure "they was ketchin," because she herself had infected "J——," aged five, by washing him with the same flannel as "W——" (the patient). The latter had had the disease for three or four months, patch after patch coming out. She washed her children with "fourpenny yallow" soap. She also informed me that a lot of children in the same street had the disease, and W—— had caught it from his "pal" next door.

CASE 4.—A boy aged ten, when seen on June 11th, 1894, had several patches on his face and pointed to a new patch which was less scurfy, more inclined to be papular, and slightly more raised than the others. The first patches, he said, came "five weeks ago." On June 25th I visited his home. There were three children besides the patient, all younger. Two of the four were affected with the disease. The soap used was "Watson's cleanser," and occasionally "carbolic soap." The mother stated that her children were subject to the disease every spring, and that she gave them some "cooling medicine" for it. The house was tidy, but the food was poor, and they only had meat once or sometimes twice a week.

CASE 5.—A boy aged eleven, when seen on June 19th, 1894, had red, scurfy patches beside the nose and round the chin; none of them very large, but scurfy, dry, and cracked. He said he was subject to these patches every year and did not know when they had first come out. The head was clean. In colour his patches were yellowish and appeared to be fading. He had some recent patches—that is, redder ones—in the popliteal space, where the garter is worn. The head and other parts of the body were clean and free from disease.

CASE 6.—A boy aged eleven, when seen on June 11th, 1894, had very slightly raised, ovoid patches, not healing in the centre, scaly and cracked on the surface, over the face and round the mouth, forehead, and nose. This boy had ringworm of the scalp, being one of the six cases of that disease which I saw during the whole of my investigations.

CASE 7.—A boy aged nine, when seen on June 11th, 1894, had patches on his face which differed a little from the common type in that the margins were slightly raised and crescentic, though the centre was not healing. As a rule the edges of the patches were ill-defined.

CASE 8.—A boy aged ten, seen on June 11th, 1894, had several irregular, slightly raised, scurfy, red patches round the mouth and nose. One of them had only come out the day before, and this was redder than the others, not scurfy, and to the finger felt distinctly papular, though the patches were fused in one red mass.

Senior Girls' Division.

CASE 9.—A girl aged thirteen, when seen on June 15th, 1894, had had patches on her face in succession for about three weeks—red ovoid patches, very slightly raised, with fading margins, and covered with a slight, dry scurf. On the 29th there were still many patches on the face, some measuring half by one-and-a-quarter inches, but these were now fading. She had nits in the hair, but no ringworm or scurf on the scalp. The rest of the body was clear. On July 14th I visited her home. She had five brothers and sisters, aged from eighteen downwards, all of whom, the mother said, had been subject to the disease, when younger, in the spring time for some years. It was the three younger children in the family who were now affected, but only one, a sister, went to the same school as the patient.

CASE 10.—A girl aged eleven, when seen on June 18th, 1894, had two ovoid patches situated round the corners of the mouth, that on the right side having come out six days previously, that on the left four days, and the younger patches seemed redder and less scurfy. Judging from this case, the patches seemed to require approximately four or five days to become scaly. The older patch was becoming a little cracked. This child had had many patches of larger size round the nose and across the forehead. The scalp was perfectly clear, and there were no patches anywhere else. I visited her home on July 14th. She had three brothers and sisters, two older, who went to the same school and had patches, while the younger one, who did not go to school, had none. The mother stated that the patient had had patches now and again in former years in the spring time. All the household were using carbolic soap when the patches came out four or five weeks previously; since then they had used curd soap.

CASE 11.—This was a case of impetigo. On June 18th, 1894, I saw a child in the girls' school with typical impetigo contagiosa of the face, but the headmistress said that she was the only one out of 170 girls having sore spots like those. A week later I saw this child. The scabs had gone, leaving the usual reddened skin, quite unlike the patches of eczema now being described.

CASE 12.—A girl aged ten, when seen on June 18th, 1894, had three separate patches, and she was sufficiently intelligent to tell us the ages of these. One, on the side of the neck, below the left ear, was one week old, and felt distinctly papular, hardly at all raised, with a fading margin, and only slightly scurfy. The patch at the right corner of the mouth was one month old, and was uniformly red, slightly raised, and cracked, and covered with scales. A faded patch beside the nose had come several weeks previously. The head was quite clear, except for nits, and there were no patches on the body. I visited her home on July 14th. The new patch on the side of the neck had then become twice as large as before, and was cracked and flat; the other was fading away. The oldest of all had gone. She had one elder sister and five brothers and sisters younger than herself; two of the latter had the disease—a boy aged seven, who went to the same school, and the infant, aged six months. "Fourpenny yellow" soap had always been used.

Junior Mixed School.

CASE 13.—A girl aged nine, when seen on June 8th, 1894, had some slight patches, which disappeared under treatment, on the face, and one ovoid, marginated patch on the inner surface of the left thigh, having the usual characteristics, and not fading in the centre, which was about two weeks old. I visited her home on July 23rd. She had four brothers and sisters, all of whom were free from the disease. All their heads were clear except for nits. "Threepenny yellow" was the soap used.

CASE 14.—A girl aged eight was seen on June 8th. She had the same scurfiness of the face, and also severe ordinary eczema in the flexures of both elbows, but this presented a very different appearance from the other condition and was moist with exudation. I visited her home on June 23rd.

CASE 15.—A girl aged nine had had patches on the face, which had been treated and were nearly faded. This child also had a patch at the back of the left leg.

Infants' School.

CASE 16.—A girl aged five when seen on June 11th, 1894, had patches over the eyebrows covered with white branny scales, and flat oval patches beside the mouth. The oldest was said to be about two months old. The patches beside the mouth were about one or two weeks old and had not been treated. The head was clear, as were other parts of the body. I visited her home on July 23rd, 1894.

CASE 17.—A girl aged seven was seen on June 11th, 1894, then a recent case. The patches on the face had appeared about six days before, and she had also patches behind the knees.

CLINICAL DESCRIPTION.

In a letter to me (June 7th, 1894) Dr. Palmer very graphically described the disease as "a very superficial dermatitis occurring in ovoid or irregular patches, limited to the face and neck, not on the scalp, resembling tinea corporis as much as anything I am acquainted with, but I can find no mycelium or spores under the microscope." These patches differed in size from 1 line to 1½ in. They did not appear all at once, but successively, and it seemed to me, as I followed the history of each separate patch, that it presented three unequal stages for description.

1. *Crimson stage.*—Appearing as a small red mark, a patch would grow during two or three days to an oval, circular, or irregular red plaque. Each patch, examined by a strong lens, consisted of a slightly raised confluence of microscopic red papules, the redness disappearing on pressure, and not at this time covered with scales. In certain cases at an early stage some of these little papules, on inspection with a strong lens, would appear to contain a clear, whitish fluid, as

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on the side of the neck in Case 12. Each patch gradually grew at the edges, but never healed in the centre.

2. *Dry scurfy stage.*—At the end of about two to five days the surface of a patch, still remaining crimson, becomes covered with tiny flakes of cuticle and cracked, but no moisture exudes. The patch is now hardly raised above the surface. Its margins grow, sometimes being slightly raised, more generally sloping into healthy skin, and the centre does not heal. The tiny papules can no longer be seen or felt, and the whole patch presents a flat, uniform appearance. It lasts in this condition for some two or three weeks, as far as I could judge, the colour gradually fading.

3. *Fading stage.*—If the colour fades early it looks simply like a patch of ordinary colourless "chapped" skin; but more often there is left a brown or orange stain, covered with a layer of tiny scales. The total duration of each patch is about three to five weeks, perhaps more. Many of the children had been affected with a succession of patches for two or even three months.

This was the progress of the eruption in about 90 or 95 per cent. of the cases I followed, and it is especially to be noticed that there was a remarkable uniformity in the type of the disease; nothing approaching polymorphism could be detected. In a very few instances—say 1 per cent.—the second stage of the disease was attended with the formation of crusts or exudation, as at the corner of the mouth in Case 1; on the ear in another case; or at the back of the neck beneath the collar band in another. In these cases the children complained of the patches having itched a great deal, and the vesicles and exudation were probably due to the rubbing. None of the patches were ever attended by the formation of pustules.

Locality.—The eruption was always found on the face, hardly ever on the trunk or limbs, and was always grouped round the orifices of the nose and mouth, not usually with any symmetry. In addition to the face it might sometimes be found on the neck—the order of frequency being on the front, sides, and back. Sometimes there were also patches on the ears; but none could ever be discovered on the scalp, though this was always carefully examined. In only four children out of about 700 cases was any of the eruption discovered on the trunk or limbs. One of the boys had a patch on his leg; a girl one behind the knee; another girl on the inner surface of the thigh; and a third girl on the back of the leg.

The scalps were remarkably clear and free from scurf or seborrhœa, though the hair of most of the boys, which was kept very short, and that of nearly all the girls, contained nits, mostly dead, and a few living pediculi.

We could only find five cases of ringworm of the scalp, and one of the scalp and the body, among all the children examined. In the last-mentioned Dr. Eddowes discovered the characteristic spores and mycelium. Twelve or thirteen of the school children had impetigo of the scalp, and one of the face. None of these children were subjects of facial or peri-oral eczema, and I came to the conclusion that, whereas 44 per cent. were suffering from peri-oral eczema, not more than about 3 per cent. could be described as having any condition which corresponded with impetigo in any stage. The impetigo was, with one exception, situated on the scalp—a part of the body which was absolutely free from the disease under consideration.

As regards *subjective and constitutional symptoms* many children complained of itching, burning, and smarting, and their parents complained of the disfigurement, but in none did the disease affect their general health in any way. The boy described under Case 1 complained of feeling weak when the eruption first appeared, but that was accounted for on other grounds. Some few children were kept away from school, on account of the contagiousness of the disease, but the patients themselves experienced no constitutional symptoms.

DEFINITION.

After examining several hundreds of the children and their brothers and sisters at home I came to the conclusion that the chief clinical characters of the disease were: (1) the distribution around the mouth; (2) the uniformity of appearance as red, dry, scurfy patches; (3) the fairly uniform course and duration of each patch; and (4) that it was practically confined to children under fourteen years of age. Anatomically the disease consists of a catarrhal process of the epidermis. The very constant resemblance to the appearance of a dry eczema, and its equally constant distribution around the buccal and nasal orifices, have induced me to suggest the name "peri-oral eczema." The close resemblance of the cases to one another and their differences from other affections entitle the disease to a distinctive name. It may be provisionally defined as a contagious malady, consisting of dry, red, scurfy, ovoid patches, each of which tends after a few weeks to spontaneous recovery; confined to the face and neck; rarely attacking children over fourteen, and only during the summer months of the year.

PREVALENCE.

The eruption is certainly not a new one, and probably corresponds to the condition known by a variety of names, such as the "soap rash of children," "seborrhœa sicca" (Tilbury Fox), &c. The disease is also probably not an uncommon one, and, as Dr. Stephen Mackenzie remarked,[5] cases might probably be found by careful search in any large school, though I believe only in the summer time. I am, moreover, inclined to think that the disease was especially prevalent in London in 1894, both because of the amount of attention the outbreak at Newcastle-street schools attracted; and also because I observed and heard of many other cases, both in private and hospital work, during the summer and autumn of that year. I saw cases among the out-patients at the Blackfriars Skin Hospital (among them a boy whose infant sister had "taken" it from him), and at St. Mary's Hospital I saw a girl aged seventeen; and outbreaks at other Board schools in the East-end of London were mentioned to me.

DIAGNOSIS.

1. *Eczema.*—A typical patch during the greater part of its existence does correspond in appearance with dry or squamous eczema; but the generally ovoid shape of these patches and their strict limitation to the face and neck are features which do not precisely correspond with the description given of any of the numerous forms of eczema. Nor was there ever any moisture observable except in the rare cases where vesicles formed in positions specially exposed to irritation. Ordinary eczema is not so strictly confined to children under fourteen, nor has it hitherto been known to occur in epidemics like this.

2. *Ringworm of the body* (tinea circinata, tinea corporis) was what most of the teachers—intelligent persons who have ample opportunities of studying that disease—thought it must be, and undoubtedly the two diseases have superficial resemblances; but (1) only one child was found to be affected with the facial disease who also had ringworm of the scalp, and he had likewise a typical patch of tinea corporis on the neck, which illustrated side by side the differences of the two diseases; (2) none of the facial patches showed the raised circinate margin and healing centre which is so characteristic of tinea corporis; (3) careful search in several instances failed to find the typical spores and mycelium of trichophyton tonsurans; and (4) none presented the fading centre of tinea.

3. *Eczema seborrhœicum* (Unna)—i.e., a seborrhœic condition of the scalp infecting the body and producing eczematous patches elsewhere.[6]—In texture the two eruptions are very similar, but the special predilection for the face and avoidance of other parts of the body is not like Unna's disease, which is prone to attack the back, chest, and other parts. Careful inspection of these children proved them to be remarkably free from seborrhœa capitis and dandruff, though often infected with pediculi. The extreme shortness of most of the boys' hair enabled one to be quite satisfied on this point.

4. *The reddened skin left after impetigo contagiosum.*—To one who followed the origin and progress of these patches from day to day it would not be possible to confuse the non-pustular disease in question with the pustules or scars of impetigo; but even when seen for once only the scurfy epidermatitis had a very different appearance from the smooth red patches, often with dried crusts still adherent, seen after impetigo. The facial patches were always dry and desquamative from about the third day to the very end, and were never pustular at any time. As already mentioned, a small proportion of the children had undoubted impetigo, but this was, with one exception, on the scalp, a part entirely free from the other disease. The two conditions have nothing in common

[5] Discussion by the Dermatological Society of Great Britain and Ireland, August, 1894.

[6] Vide Anderson's treatise on Diseases of the Skin, second edition, p. 222.

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except their favourite locality, and their attack-rates in the school were widely different—3 and 44 per cent. respectively.

5. *The epidemic skin disease.*—All the cases of epidemic skin disease to which I drew attention in 1891 were undoubtedly due to a common cause, which consisted, in my opinion, of a specific contagium, but the cases presented wide clinical variations both as regards severity and the character of the eruption. At first sight it seemed to me as though we had to do with the same disease,[7] for the patches of facial eczema closely resembled some of the youngest and slightest of the cases in 1891, and especially that of a little boy aged four, who had a few such ovoid patches on the chest and abdomen, lasting for two or three weeks. Moreover, both diseases were desquamative throughout the greater part of their course. The differences, however, are very great. The epidemic skin disease, though of widely varying type, is more or less general in its distribution on the body and shows a marked tendency to attack those in advanced life. It is usually attended by other symptoms (weakness and anorexia) and had a fatality (case-mortality) in the year 1891 of 12 per cent.; whereas this peri-oral eczema is of a much more uniform type, only attacks children, is practically always confined to the face, is never general, and is never attended by disturbance of the general health or danger to life.

ETIOLOGY.

1. *Age.*—The disease is particularly prone to attack children under fourteen. It is true that two of the teachers in the school building were affected, but these were almost the only adult patients I saw. There were a few cases in the children's homes aged between fifteen and twenty. In eight homes, taken haphazard, containing sixty-seven persons, there were:—

7	persons	exposed,	aged	0–5	years,	of whom	3	were attacked	(43%)
18	,,	,,	,,	5–10	,,	,,	9	,,	(50%)
15	,,	,,	,,	10–15	,,	,,	8	,,	(53%)
8	,,	,,	,,	15–20	,,	,,	none	,,	
19	,,	,,	,,	20 and upwards,		of whom none		were attacked.	

Total: 67 persons exposed, of whom 20 were attacked (29·9%).

On account of the children being classified in school more by intelligence than age it is impossible to say with certainty in which year of life under fourteen they are most prone to suffer. The table below suggests that the younger children suffered most, at least among the girls.

2. *Sex.*—It will be gathered from the same table that the disease was much more prone to attack boys than girls, the total attack-rate amongst the boys being 52·7 per cent., and that amongst the girls 35·4 per cent. This difference was evident even where both were equally exposed to contagion.

3. *Previous health.*—As regards the previous health of the children attacked, the mode of life of nearly all the school-children was not such as to favour a vigorous state of health, but the more weakly ones did not seem to be attacked more readily than the stronger children.

4. *Food.*—The distribution of the eruption round the mouth suggested that the food might be causally related, but that taken by the children varied very considerably in the different homes and was obtained from many different sources. They all ate bread and drank water, it is true, but the bread was obtained from many different bakers and varied considerably in quality. The water-supply also was from at least two different companies.

5. Dr. Eddowes, who saw many of these cases with me, suggested a *discharge from the mouth or nose* as a source of the eruption, and we attempted to ascertain from the children whether the side which was most affected was that on which they slept, but exact information was difficult to collect on this point. Nevertheless, the constant distribution of the eruption round these orifices is very suggestive of such a cause.

6. *Soap and washing.*—Mr. Hutchinson, when the children were shown at the meeting in June, 1894, asked particularly about the soap, and careful inquiry was made. The impression I formed was that, generally speaking, very little of any sort was used. At the school-house carbolic soap was supplied, but the headmaster stated that only about ten or twelve of the children were known to wash during the week. A large variety of the different kinds of soap was in use in the different homes, such as "fourpenny" and "threepenny" yellow soap, carbolic, curd, Watson's cleanser, &c., and no causal connexion could be traced. In the same year (1894) I heard of and saw many instances of precisely the same disease occurring among families of the upper classes, so that it is not only dirt and squalor which produce, though these may probably facilitate the spread of, the disease.

7. *The drainage and sanitary conditions* of the homes visited, and of the school buildings, were, as far as could be ascertained, fairly good.

8. *Season.*—No cases arose among the children during the winters of 1893–94 or 1894–95. The first cases were noticed about April. The height of the epidemic was at the end of June and beginning of July. Very few of the children were found to be affected on their return to school in September, and only a few isolated cases occurred in October and November, 1894. A very much milder outbreak, though similar in all other respects, occurred, I am informed, in the summer of 1895 in the same school. Season has, therefore, a very marked influence, and the disease may be said to be almost confined to the summer months. The summer of 1894 was not remarkable for any climatic peculiarity. It was an average English summer.

9. *Contagion.*—1. That the disease is contagious, or at any rate epidemic, amongst children is rendered highly probable from the large number of children attacked at one time and in one place by a disease having specific and recognisable qualities. In order to arrive at some idea as to the exact number of children affected on one particular day I visited the school with Dr. Palmer and procured a return of the numbers attacked in the several departments on June 18th, 1894. From the subjoined table it will be seen that 44·1 per cent. of the children present in the school on that date had the disease. These figures may be taken as correct, for on that day I had an opportunity of going through the class-rooms, and by making those children who had patches on their faces stand up and inspecting them one could readily arrive at the proportion affected. It should be remembered also that this was after the outbreak had been going on for eleven weeks, that some of the children originally attacked were now well, and that others were attacked later. It may therefore be taken that at least half the children attending the Newcastle-street school were attacked during the months of April, May, June, and July, 1894. But these only represented a portion of those affected in that neighbourhood; for I generally found, on visiting their homes, that two or three other members of the family (not perhaps attending the same school) were also attacked, leading me to form the rough estimate that at least 1100 or 1200 children in this district were affected by the disease. II. Its infectiousness is further shown by the evidence of the teachers as regards its origin and progress through the school, for class after class was rapidly affected. The junior mixed school was first observed to be attacked, and next the infants' division, which was in the same building, followed soon afterwards by the boys' division in a separate block, and, finally, the girls' division, which suffered least and was housed in the same block as the last-named. III. Moreover, two of the teachers (who, though adults, were especially exposed to infection) also contracted the disease. IV. Many of the mothers conclusively showed that it spread from one to another of their children and were so strongly convinced of its contagiousness that they kept separate towels for the ones affected. Instances were mentioned to me in which a child took the

Table showing the Number of Children present in the School on June 18th, 1894, and the Numbers suffering from Peri-oral Eczema in the several Divisions.

Department.	Sex.	Age last birthday between—	Children affected out of total in class or division.	Attack-rate (per cent.).
Infants	Boys	3 and 8	89 out of 189	47·0
	Girls	3 ,, 8	75 ,, 177	42·3
Junior mixed ...	Boys	7 ,, 10	48 ,, 107	44·8
	Girls	7 ,, 11	39 ,, 117	33·3
Senior girls	Girls	8 ,, 13	41 ,, 144	28·4
Senior boys	Boys	8 ,, 13	96 ,, 146	65·8

SUMMARY.

233	cases among	442	boys, or 52·7 per cent.
155	,, ,,	438	girls, or 35·4 per cent.
Totals ... 388	,, ,,	880	children—44·1 per cent., who were present in the school on June 18th, 1894.*

* There are upwards of 1000 scholars belonging to this school, and this represents an average attendance on one day.

[7] British Journal of Dermatology, August, 1894, p. 264.

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disease from a neighbour's child with whom he habitually consorted, and then propagated the disease to a brother with whom he slept, and so on through the younger children in the same house. Others, again, voluntarily declared that it spread from child to child if they were allowed to use the same towel or flannel to wash (e.g., Case 3 *ante*).

If, therefore, the disease be contagious in the ordinary sense of the word—and I myself have no doubt on that point—the next question is, By what means was the contagion conveyed? That the disease was not conveyed by water is rendered improbable by there being two different water supplies to this neighbourhood. The same argument applies to food. But the remarkably uniform habit which children, especially of this class, have of wiping their noses and mouths with the backs or fronts of their hands seems to me the most reasonable explanation of the distribution around these orifices. It may be that the *materies morbi* issues from the sufferer's own mouth and nose and is thus smeared around after the manner of a locally contagious eruption; or, in view of its undoubted contagiousness from person to person, it seems to me equally likely that the contagion is conveyed by the hands of another child suffering from the disease, who first rubs his own nose and then clasps his little comrade by the hand, who in turn wipes his nose and mouth in the manner just mentioned. The habit of kissing may also have promoted spread in the younger forms, but not in the older boys' division, which was most affected.

As to the precise nature of the contagion, it may perhaps be urged that the large number attacked in this neighbourhood was due to some common cause like the miasm of malaria, and if there were any precedent, or *à priori* grounds, for such a supposition in the annals of dermatology it would be hard to disprove it here, for the inhabitants around the school were very widely affected. But the history of the outbreak is much more in keeping with a contagious malady, in the sense in which measles is contagious. Finally, the question may properly be asked, Is there a specific microbe present in the eruption or elsewhere? This question I have endeavoured to solve by such means as were available, and the results will be mentioned directly; but it should be specially borne in mind that the discovery of the specific microbe is not absolutely indispensable to the proof that a disease is contagious, else small-pox, which has been known to be contagious since the days of Boehaave (1730), would not be so regarded even in the present day. Small-pox, scarlet fever, measles, and other infectious diseases have been proved to be infectious even without the constant presence of a specific microbe being demonstrated. The reproduction of these diseases in animals by bacteria, and then finally obtaining cultures again from the second case, which are Koch's tests of the organism in question being the specific microbe of a disease, has never even yet been accomplished.

BACTERIOLOGICAL EXAMINATION.

A.—METHODS.

I made a bacteriological examination of Cases 1, 9, 10, 12, and 22. In collecting the scrapings of epidermal scales the patch was first wiped with alcohol, then scraped with a sterilised knife on to a clean sterilised glass slide, covered with another sterilised glass, and sealed with gutta-percha tissue and chloroform. These formed the material for examination. In only one case was there any formation of a scab (Case 1).

1. *Method for direct staining of scrapings of the epidermal scales.*—The method employed for colouration was the eosine-gentian method, which is as follows. (1) After being imbedded in celloidin, sections, which must have been cut very thin, are placed in water just long enough to remove the alcohol in which they have been lying, and then placed on the glass slide; (2) cover the section with 1 per cent. aqueous solution of eosine for from one to fifteen minutes—usually one and a half or two minutes are long enough; (3) wash in water; (4) cover the section with anilin-gentian solution (Unna) for five minutes; (5) wash in water; (6) cover the section with iodide solution for one or two minutes; (7) dry the section by means of blotting-paper; (8) clear the section with anilin oil until all excess of colouring has been removed, or picrin-anilin if necessary; (9) wash in xylol; (10) mount in xylol balsam.

Note.—To make anilin-gentian solution (4) take water with enough anilin oil in it to make a milky suspension when shaken; filter this mixture through previously moistened filtering paper. Filter the concentrated gentian-violet solution in the same way, and mix equal parts of the anilin and gentian solutions. For the iodide solution (6) dissolve a small lump of iodide of potassium in a small dish; when well dissolved add peroxide of hydrogen by drops until a deep lemon-yellow colour appears. Keep this mixture well covered all the time. Both of these solutions (4 and 5) should be made fresh for use, as they spoil very quickly. If pure anilin oil (8) does not decolourise sufficiently, then add to the oil a small portion of picrin. Heating the slide gently over the flame, section upwards, helps the action of the reagents materially.

2. *The methods for obtaining cultures from scrapings* were the ordinary ones, using 15 per cent. gelatin kept in an oven at 22° C., and agar cultures in an oven at blood-heat (37° C.). On several occasions I took down culture tubes and obtained scales direct from the patient.

B.—RESULT OF DIRECT STAININGS OF SCALES.

In three of the five cases I could detect no microbes in the scales examined. In the other two (Case 1, from patch over ear two weeks old, which was inclined to exude, and another case, an ordinary patch about one month old) there were plenty of cocci. Only one kind of coccus, however, was in large numbers. It was rather ovoid in shape, measuring about 1 μ in length and a little less in breadth. The cocci were arranged mostly in pairs, some so close together as to appear like a single coccus without very close inspection. Many of these were arranged in clumps, suggestive of the morrococcus of Unna; but on submitting specimens from these two cases to Professor Unna in Hamburg he very kindly had sections made and expressed the opinion that, though "there were a great many cocci present, he believed one sort only was in great numbers and characteristic groups, but not characteristic enough in shape and grouping to recognise them as a coccus known to him—as, for instance, staphylococcus, morrococcus, &c." The other microbes present were for the most part smaller than the prevailing organism, and a few were arranged in chains. No cultures, spores, or mycelium of trichophyton tonsurans could be obtained from any of these or other cases which I examined in the usual way for this purpose.

C.—CULTURE EXPERIMENTS.

Case 1 (June 15th).—Scrapings from patches on the cheek about two or three weeks old were tried on agar tubes, but no cultures obtained. The dried vesicle from the corner of the mouth gave gelatin cultures resembling in all respects (macro- and micro-scopically) staphylococcus albus and aureus, which liquefied gelatin by the fifth or sixth day. There was also a more slowly growing white organism which did not seem to liquefy gelatin, but which I was unable with the resources then at my command to separate from the staphylococci.

Case 9 (June 16th).—Scrapings from a patch about two or three weeks old gave white cultures growing on the surface, liquefying gelatin, and precisely resembling staphylococcus albus; but here again there seemed to be a slower-growing organism, apparently not liquefying gelatin. It would not grow on agar, but after some trouble I succeeded in isolating it in a gelatin plate culture, and then obtained *three* white surface cultures with a more or less crenated border of slow growth. Microscopically these cocci were mostly in pairs, measured nearly 1 μ, and were grouped into clumps, irregular both in size and shape.

Case 10 (June 18th).—Scrapings from a patch five or six days old gave no cultures on agar. On gelatin tiny circular white growths appeared on the surface in the course of five days. Three days later some few had begun to liquefy; others had not. They were separated by plate cultures. The former gave growths resembling staphylococcus albus. The latter appeared on surface gelatin cultures as very small white colonies, taking five or six days to become apparent with a lens and not liquefying gelatin. Microscopically the cocci were mostly in pairs, some of them single, measuring nearly 1 μ, and grouped into clumps of irregular size and shape. Gelatine stab sub-cultures of this organism showed no result at all, nor was I able to observe any result on surface gelatin cultures. But I did not look as carefully as in Case 12, about to be mentioned.

Case 12 (June 18th).—Scrapings from two patches one month and one week old respectively (which became inadvertently mixed) gave on agar in the course of seven days three distinct kinds of cultures—viz., (1) a thick, circular orange-growth, liquefying gelatin and having all the characters of staphylococcus aureus; (2) a thick, white

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growth liquefying gelatin, and having all the characters of staphylococcus albus; and (3) an exceedingly thin white surface culture with raised crenated border. All these three grew side by side on the agar, but the last-named was of very much slower growth than the others and sub-cultures did not liquefy 15 per cent. gelatin tubes kept at 22° C. for two to three months. Cultures of this organism grew better on gelatin, though they were very slow on both agar and gelatin. They consisted of a very thin culture, hardly more than an opalescence (seen by a strong lens to consist of myriads of pin-point colonies), and surrounded by a thicker, white, crenate, spreading border. In the course of two or three weeks, when growth came to a standstill, the culture itself became iridescent, and the entire surface of the gelatin became covered with a faint iridescence. In gelatin plate cultures pin-point colonies, invisible to the naked eye, could be observed with a strong lens in the course of five or six days, both in the depth and on the surface (a trifle larger), which hardly grew any larger after being placed for several weeks in the oven at 22° C. Microscopically colonies of this organism when mature consisted of roundish cocci measuring a trifle over 1 μ single, but more often in pairs, and sometimes arranged in irregular masses. These cocci were larger and more separate than staphylococcus aureus and albus.

Case 13.—An agar stab culture was made from scrapings taken from the patch on the leg about two weeks old. No growth whatever could be observed for nineteen days, and then a few minute colonies were seen, from which surface cultures on gelatin were obtainable. These resembled No. 3 in Case 12, but were even of slower growth and less vitality than they.

Conclusions.—The resources at my command were not great, and only provisional conclusions can be drawn from these experiments; but it seems probable from the examination of these five typical cases that there was a microbe constantly present in cultures from all of them having the characters described above (No. 3, Case 12)—a slowly growing aerobic organism of low vitality, easily stifled by the staphylococcus when that is present, with but little liking for agar, not deliquescing 15 per cent. gelatin, and with colonies so minute as to be easily overlooked when not plentiful. The cultures of this organism differed from the microbe found in the epidemic skin disease in being much thinner, scarcely more than an opalesence, having a raised crenated border, and in the colonies being often so minute as to escape naked-eye examination altogether. The two resemble each other in not liquefying gelatin and in being easily obscured by staphylococci when these are present.

TREATMENT.

The cases, when treated, readily yielded to a mild creolin or mercurial ointment, if properly applied, in the course of a week. A patch if left alone usually subsided spontaneously in four or five weeks, but others would generally appear in succession on the same child for perhaps two or three months.

REMARKS.

1. Though the disease might by some be thought to be trivial, it has interested me a great deal. One may sometimes learn a good deal from small things, and the epidemic was sufficiently marked to lead to trouble and subsequent inquiry. It is true that the disease is not a very serious one; this is the fundamental distinction between it and the epidemic skin disease. But was it so very much less fatal and inconvenient than many other skin maladies? The patches were sore, unsightly, mistaken for ringworm, and certainly contagious, and therefore the eruption undoubtedly merits the special attention of those connected with schools, or who have to do with children.

2. The disease considered above consists of a dry catarrhal process of the skin having all the superficial characters of a dry eczema, but presenting nevertheless very well-marked clinical and etiological characters which differentiate it from that disease. One is enabled, therefore, on scientific grounds to separate it from the large general class of eczematous diseases, and to ascribe to it a contagious origin, a special seasonal prevalence, and a special age incidence. On these grounds it is worthy of nosological distinction.

3. The eruption, which has been discussed in the preceding remarks under the provisional name of "peri-oral eczema," is beyond doubt infectious under certain conditions, and is liable to epidemic prevalence. It, therefore, adds one more to the already growing list of infectious skin disorders.

Upper Berkeley-street, W.

A GROUP OF TWENTY-SEVEN ABDOMINAL OPERATIONS.

BY FREDERICK TREVES, F.R.C.S. ENG.,
SURGEON TO, AND LECTURER ON SURGERY AT, THE LONDON HOSPITAL; EXAMINER IN SURGERY AT THE UNIVERSITY OF CAMBRIDGE.

THE twenty-seven cases, of which brief details are here given, represent the abdominal operations which I have performed during the first six weeks of the present winter session—i.e., between the dates of Oct. 4th and Nov. 15th, 1895. The variety of the cases and the peculiar features of some of them will, I hope, justify, or at least excuse, their publication. All the patients in the present group recovered from the operation. The cases may be thus divided:—Removal of ovarian tumours, 3 cases; removal of the vermiform appendix, 10 cases; resection of intestine, 2 cases; operations on the gall-bladder, 6 cases; operations on the kidney, 2 cases; operation on the spleen, 1 case; exploration of the stomach, 1 case; and exploratory incisions, 2 cases. Nineteen of the operations were carried out at the London Hospital, and 8 in private practice.

REMOVAL OF OVARIAN TUMOURS.

CASE 1.—The patient was a woman aged forty who was admitted to the London Hospital. She had had six children. The tumour had been noticed eight months previously. She had recently had pain ascribed to the twisting of the pedicle of the tumour. Some free fluid was found in the abdominal cavity. On Oct. 4th a multilocular ovarian cyst was removed. It reached to the umbilicus. One of the major cysts had burst into the abdominal cavity. There was no peritonitis and no evidence of twisting of the pedicle. The abdominal cavity was mopped out, and the wound closed without drainage. The patient made a good recovery.

CASE 2.—It is curious that in this case also a major cyst had given way. The patient, a woman aged fifty-nine, was admitted to the London Hospital. She was very corpulent and weighed 24 st. The abdomen had obtained such enormous proportions that she had been for some time bedridden. Enlargement of the abdomen had been noticed for ten years. There had been more or less constant abdominal pain for seven months. In addition to a pelvic tumour there was much ascites and a large umbilical hernia. The lower abdominal parietes was œdematous. She had chronic bronchitis. The urine was healthy. A multilocular ovarian cyst was removed on Oct. 4th. The abdomen contained many quarts of ascitic fluid mixed with glairy material, which had escaped from a cyst. The umbilical hernia, which was irreducible, was reduced from within. The abdominal cavity was flushed out with warm water from a Berkefeld filter. The wound was closed without drainage. The patient made an excellent recovery.

CASE 3.—The patient, a woman aged thirty-three, admitted to the London Hospital, is said to have had enteric fever in June and July, 1894. In August, 1894, a lump was felt above the pubes which ultimately fluctuated and was obviously an abscess. It disappeared simultaneously with a profuse discharge of pus from the bladder. The discharge of pus had continued in varying quantity ever since, with the exception of a few intervals. She had severe attacks of painful micturition, with fever and hectic symptoms. The abdomen was opened on Nov. 8th, and a small dermoid tumour of the right ovary discovered. It had become adherent to the bladder, which it had perforated. A portion of the tumour, covered with small hairs, had grown into the bladder and was removed with difficulty. The ovarian tumour was removed. The hole in the bladder admitted the forefinger readily and was situated near the base. It was closed by a series of Lembert's sutures. An iodoform gauze drain was introduced down to the bladder wound and was removed on the third day. The tumour contained much solid matter and a small quantity of hair. The main cyst had suppurated and was in communication with the bladder. The patient has done well.

Remarks.—In this and other instances in which the

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bladder has been sutured I have seen no advantage from "Trendelenberg's position." The area can be well exposed by means of suitable retractors and by sponges in holders. There is no need to freshen the margin of the hole in the bladder. The sutures should be very close, should be of silk, and should go well into the muscular coat. Cleft palate needles or a curved Hagedorn's needle are the best. A catheter is used for the first three days only. With regard to the cases in which a cyst had burst into the abdominal cavity it is impossible to refrain from alluding to the surgical damage which has been wrought by the term "the toilette of the peritoneum." This mischievous expression involved a laborious cleansing of the peritoneal cavity at all costs. In the present instances the cavity should have been first well flushed out, then emptied of fluid, and then, with infinite pains, dried and wiped out by indefinite sponging. It has been made very evident that the "toilette of the peritoneum" is not a safeguard against peritonitis. An elaborate sponging so damages the peritoneal endothelium as to destroy its remarkable power of dealing with micro-organisms, and appears to favour the passage of the colon bacillus through the intestinal wall. On the other hand, normal cyst fluid is sterile and can be well disposed of by the peritoneum. In one of the cases above described the abdominal cavity was merely mopped out with gauze sponges and as much cyst fluid removed as was in evidence. In the second case the immense size of the abdomen prevented this from being done, and the cavity was flushed out. In both instances a quantity of iodoform was introduced into the abdominal cavity, and no drain was employed.

REMOVAL OF THE VERMIFORM APPENDIX.

CASES 4 to 13.—There were 10 examples of this operation—4 were performed in the hospital and 6 in private "homes." They were all carried out for relapsing perityphlitis and were performed during the quiescent period. Seven of the patients were males (aged respectively fourteen, eighteen, twenty-five, twenty-eight, thirty-two, thirty-six, and forty-two years), and 3 were females (aged fourteen, thirty-eight, and fifty-four years). The number of attacks of perityphlitis varied from 2 to 12. One patient (a woman aged thirty-eight), the number of whose attacks was not estimated, had been confined to bed for fifteen months. Her appendix contained a small fæcal concretion and much pus. In no other case was there any concretion or foreign substance. The appendix was found to contain muco-pus, or to be strictured, or to be acutely bent upon itself and much distended. In nearly all the cases there were adhesions. Some of the operations were very simple; others were difficult. In one case the appendix was adherent in the pelvis, and its removal caused great trouble. In no instance was any drain used. All the patients made excellent recoveries. It is very desirable that the acute symptoms should have entirely subsided before the operation be undertaken. If this rule be not observed many soft adhesions and much bleeding are encountered. If bleeding vessels have to be "sequestered" it is difficult to obtain a good hold for the needle. In all the cases the stump of the appendix was sequestered, and the involved peritoneum was freely dusted over with iodoform. The sequestration of a bleeding point or surface is, it is needless to say, effected by means of as many Lembert's sutures as are required to completely tuck in or turn in the involved surface. It is of infinite service when an actual pumping vessel cannot be picked up. Some surgeons have advised that the appendix be divided in a circular manner as far as regards its serous and muscular coats, and that the undivided mucous membrane be then drawn out as a separate tube and cut. There is no great object gained by this procedure, and it is very seldom possible, because one of the very earliest and very commonest of the changes depending upon mischief in the appendix is more or less destruction of the tube of mucous membrane. In many cases the whole of the mucous lining has been destroyed. I have never found a date-stone, a cherry-stone, or a grape-pip in the appendix, although I have met with fæcal concretions which have very closely resembled those objects. As a matter of fact, foreign bodies play a very insignificant part in the production of perityphilitis. I think that a ventral hernia may be expected in some 5 per cent. of these cases, but I have seen less of it since I have used a continuous silk suture for the peritoneum and have made the surface sutures (of silkworm gut) include all the soft parts external to the serous membrane.

RESECTION OF INTESTINE.

CASE 14.—A man aged twenty-one, admitted to the London Hospital, had had occasional attacks of colic with vomiting and diarrhœa for five years. The attacks had become more and more frequent, and on admission he had all the symptoms of stricture of the small intestine. Coils of hypertrophied bowel were visible. No tumour could be felt. He had lost 42lb. in weight during the last eighteen months. A median incision revealed a stricture of the ileum. The narrowed part occupied about two inches, and five inches of the bowel were removed. The divided ends were approximated by Murphy's button. The stricture would not admit the little finger except with difficulty. The bowel about the strictured part was much thickened and ulcerated. Microscopic examination showed that the stricture was due to cicatricial contraction following upon tuberculous ulceration. The tuberculous process was active in the vicinity. The operation was performed on Oct. 11th. The patient had diarrhœa for five days after the operation. He made a good recovery. At the end of five weeks he had gained 14lb. in weight, but the button had not been passed.

CASE 15.—The patient, a woman aged twenty-six, admitted to the London Hospital, is stated to have had typhoid fever some six months previously. She had been ill ever since. Her main troubles had been constantly recurring obstruction of the bowels with colic and vomiting. On admission she presented the symptoms of stricture of the colon. She was wasted, and a lump was to be felt in the left iliac fossa. The abdomen was opened in the left semilunar line on Oct. 11th. A growth was found to occupy the sigmoid flexure. The involved bowel was cut away, and the divided ends were united by the largest size of Murphy's button. The button was felt in the rectum on the eleventh day after the operation and was removed. The patient made an excellent recovery. The portion of gut removed measured 5 in. The growth which produced the stricture was shown on microscopic examination to be an epithelioma and occupied 2 in. of the bowel. One enlarged gland was discovered and removed.

Remarks.—Murphy's button is not so well suited for cases in which the difference in the lumen of the bowel above and below the stricture is considerable. Simple suturing has, on the other hand, a great tendency to lead to bending of the bowel at the suture line. In Case 15 the gut above the stricture was greatly distended, and its walls were almost as rigid as leather. The bowel below the obstruction was flaccid, narrow, and empty. The union of parts so unlike in size and density is very apt to lead to "kinking." In both these cases I supplemented the operation by a series of sutures of the bowel beyond the limits of the approximated buttons. This was necessary in order to bring about a good union of the serous surfaces and to cover in exposed mucous membrane. I have noticed that such extra sutures in the small intestine or in the procedure of gastro-enterostomy are apt to be followed by retention of the button. I have now a number of patients in whom the button has been retained for many months, and in no instance has any inconvenience followed so far. In the operations I have carried out on the colon the button has always come away. I have never found the button to become blocked up. In Case 15 a plum-stone was passed within a day or so of the operation and must have come through the button.

In a case of pelvic peritonitis of six years' standing a communication existed between the sigmoid flexure and the bladder, and both urine and fæces escaped through sinuses in the abdominal wall. After the sinuses had been dealt with surgically the case was brought to a very successful issue by resecting the whole of the sigmoid flexure. I used the largest size of Murphy's button, which came away on the eighth day. I believe this to be a very early period for the discharge of a button in the colon. In dealing with the sigmoid flexure the button can be used in cases in which, I believe, a line of sutures could not be introduced from want of space to work in. It is desirable that the buttons be tested beforehand. Now and then a button is met with possessing this defect. If the two cylinders be not exactly in line, the male segment gains on the female segment and cannot possibly be disengaged. This occurred to me recently in dealing with a case of acute intestinal obstruction due to an adherent Meckel's diverticulum. The diverticulum was gangrenous and was excised, together with a piece of the ileum. In bringing the two parts of the button together the cylinders were not in an exact line—a common possibility; the button jammed, and could neither be pressed home nor withdrawn. I had to carry out a second resection and unite the two cut ends by means of a second button.

OPERATIONS ON THE GALL-BLADDER.

CASE 16.—A woman aged thirty-seven, who was admitted

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to the London Hospital, had had attacks of gall-stone colic since 1887, the more severe being attended by jaundice. The gall-bladder formed a very large movable tumour, which had been considered to be a movable kidney. It could readily be displaced so far towards the left as to receive pulsations from the aorta. On Nov. 8th the abdomen was opened in the right semi-lunar line. The gall-bladder was of great size and was distended with perfectly clear mucus. There were no adhesions. It was not possible to demonstrate whether there was or was not a stone in the cystic duct. The gall-bladder was brought to the surface and opened. The patient is doing well.

CASE 17.—A woman aged thirty-five, who was admitted to the London Hospital, had had three attacks of gall-stone colic. A hard mass could be felt in the region of the gall-bladder. The abdomen was opened over the swelling. The gall-bladder was surrounded by adhesions, and the confused swelling was brought to the parietes with difficulty. The gall-bladder was incised and was found to be full of pus and to have unusually thick walls. No stone was discovered. The patient has done well.

CASE 18.—The patient, a woman aged twenty-eight, who was admitted to the London Hospital, had been ill only six weeks. Her trouble commenced with sudden pain attended by rigors, and later by frequent and severe vomiting and great abdominal tenderness. There was no jaundice. A vague mass was to be felt near the median line and under the liver. Operation took place on Nov. 15th. The tumour proved to be a distended gall-bladder surrounded by adhesions and firmly attached to the stomach. The actual gall-bladder was demonstrated with difficulty and was ultimately brought to the surface and secured. It was opened and found to contain bile and muco-pus. A single large gall-stone was felt, which was apparently on its way to the stomach. It appeared to have entirely escaped from the gall-bladder and was surrounded by much inflammatory material. This material was so frail in places that I did not venture to dislodge the stone, which could be removed later through the fistula which was established. The patient has done well, and the stone has been removed.

CASE 19.—A woman aged forty-five who was admitted to the London Hospital, had had attacks of gall-stone colic for many years. She had been jaundiced for the last eight weeks. On Nov. 8th the abdomen was opened in the right semi-lunar line, and twenty-three stones were removed from the gall-bladder, which was fixed to the wound as usual. The patient has done well.

CASE 20.—A man aged twenty-nine had been liable to severe attacks of abdominal pain for some two years. He had also had an attack of undoubted peritonitis. There had been no jaundice. No definite swelling could be felt. On Oct. 21st, 1895, a median incision was made which revealed some unexplained adhesions about the head of the pancreas and a resulting confusion in the anatomy of the part. Stones could be felt in the gall-bladder, which was but little enlarged. The gall-bladder was brought out through a wound in the right semi-lunar line, was fixed, and was opened five days later. About 150 small stones were removed. The fistula soon closed, and both wounds are now soundly healed and the patient is well.

CASE 21.—In this case, that of a woman aged forty-seven who was admitted to the London Hospital, I had removed in 1893 seventy-two stones from an enormously distended gall-bladder which contained three pints of pus. Lately she had had occasional attacks of colic and of tenderness about the site of the old wound, which was firmly healed. I opened the abdomen near to the old scar on Oct. 4th. The gall-bladder was represented by a shrunken, fibrous mass. There was no suspicion of any gall-stone. The hepatic flexure of the colon was very adherent to the old gall-bladder, and was somewhat sharply bent. This kinking of the bowel appeared to be the cause of the attacks of pain. It was set free, and the patient made a good recovery.

Remarks.—Some of the above cases have yet to be completed. The immediate safety of the patient is without doubt more certainly secured if the evacuation of the gall-bladder can be effected in two stages. This procedure, however, does not permit of the most ready extraction of the stones. It is possible, I think, to err in the direction of attempting to remove all the stones at one sitting at almost any cost. The breaking up of a stone by forceps applied to the outer side of the duct, the "needling" of an impacted stone, and the persistent attempts to remove such a stone through the hole made in the gall-bladder are all measures which are apt to lead to disaster. The determined attempt to make the operation at once complete may sacrifice the patient's life. I have seen little harm from leaving the impacted stone when it is in the cystic duct or in a mass of soft adhesions outside the gall-bladder. Nearly always it can be removed at a later period or is spontaneously expelled. When the gall-bladder has suppurated the subsequent freeing of the impacted stone is almost invariable. When the stone is lodged in the common duct the position is of course less simple, as the retention of the stone involves a complete biliary fistula. In the only case (Case 19) in the above series associated with jaundice I was careful to remove all the stones at one sitting.

OPERATIONS ON THE KIDNEY.

CASE 22. *Hydronephrosis.*—The patient, a woman aged forty-seven, was admitted to the London Hospital with a very large renal swelling on the right side. She had complained of pain in the pelvis and abdomen as long ago as last August. Subsequently to that she had noticed an increasing swelling in the right loin. The uterus was absolutely fixed. There was dysuria. The renal tumour reached to Poupart's ligament. On Nov. 15th the abdomen was opened by a median incision. The peritoneum was found to be dotted with nodules of a growth (proved microscopically to be carcinomatous). There was a malignant growth (of uncertain origin) in the pelvis, which had fixed the uterus, ovaries, and bladder, and had obliterated their anatomical details. The kidney exhibited the condition of hydronephrosis. The cyst was of great size; the wall was very thin, and the contents were quite clear. The peritoneum was stripped off, the renal artery, then the veins, and lastly the ureter being ligatured. The cyst was then removed and the abdominal wound closed. The hydronephrosis would appear to have depended upon a blocking of the ureter by a growth in the pelvis, and to have therefore been of very rapid formation. Not a trace of kidney tissue had survived. As in other cases of removal of the kidney, I applied separate ligatures to the artery, the veins, and the ureter. The patient has made a good recovery from the operation.

CASE 23. *Movable kidney.*—The patient, a woman aged thirty-three, very neurotic, was suffering severely from symptoms depending upon the extreme mobility of the right kidney. The kidney was exposed from the loin and was fixed by three sutures. The operation was performed on Oct. 31st. The patient made a good recovery and was freed from all her renal symptoms.

Remarks.—The trouble caused by a movable kidney varies greatly. In many instances the loose organ is discovered by accident, and the patient is totally unconscious of it. The appearance of symptoms depends mainly upon two factors: (1) the pedicle of the kidney may become twisted and intense pain be at once produced; and (2) the neurotic state of the patient is the predominant feature of the case, and the movable kidney is a mere focus. The latter circumstance is the commoner of the two. I have thought in some cases that a movable kidney has interfered with the action of the colon and has favoured the collection of scybalous masses. I have seen a normal kidney worked out of its place by a vigorous masseuse, who considered it to be a fæcal mass, and who did her best to force it along the transverse colon. In a few instances the troubles caused by a movable kidney have been overcome by a special truss, but the cases are few and the difficulties in the way of fitting the instrument are numerous. I have sutured the kidney in some fifty instances and believe the operation to be fairly successful. It is attended with very little risk. One suture is, I think, useless and very apt to lead to a relapse. I introduce two sutures as far apart as possible, and very often insert three. The sutures, which are of silk, pass into the actual substance of the kidney. The surgeon is often deceived upon this point, and the needle, which is supposed to have penetrated the gland, often passes quite clear of it. A circular Hagedorn's needle answers well, or a modified form of what is known as "Prothero Smith's perineal needle." The sutures should be drawn tight, but not as tight as possible. "Kidney pain" in the outer side of the thigh and in the heel is not uncommon after the operation and may be long-abiding. The chief complication after the operation comes through the bladder in the form of retention, catheterisation, and possibly a troublesome cystitis. The fixing of movable organs by suture may be said to be, on the whole, successful. In a case of "dropping" of the liver in Glénard's disease I have replaced the organ and have secured

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it in position by sutures, with the result that an examination made of the patient some months after the operation showed the liver still to be securely fixed in the position in which it had been sutured.

OPERATION ON THE SPLEEN.

CASE 24.—The patient, a delicate woman aged thirty, had been in ill health for two years. She had been liable to attacks of constipation and vomiting. Two months previously an enlargement of the spleen was noticed, and this was attended with intermittent pyrexia. The patient had never lived out of England or in a malarious district. When seen she was exceedingly ill and too feeble to raise herself in bed. She had the appearance of a subject of advanced hectic fever. She was pregnant. There was a fluctuating swelling—evidently an abscess—in the splenic region. An incision was made over this, and an abscess of the spleen discovered and opened. Six ounces of foul pus escaped as well as much broken-down splenic tissue. The finger could be passed as far as it could reach into the spleen. The operation was performed on Oct. 25th. The splenic cavity was drained with gauze. Two days after the operation the patient gave birth to a seven months' fœtus. She improved remarkably, and the temperature became normal. Three weeks after the operation, without further complication, the discharge from the wound became feculent, and this condition still existed when the patient left the hospital.

EXPLORATION OF THE STOMACH.

CASE 25.—A man aged forty, who was admitted to the London Hospital, had been ill—according to his own report—for twelve years with pain in the stomach and vomiting. He had vomited blood. He was greatly emaciated. The pain in the stomach was evidently very severe. The stomach was exposed by operation on Oct. 11th. It was much enlarged, but exhibited no abnormal appearance beyond this. The stomach was then opened and emptied. The pylorus was examined from within and every part of the gastric surface explored. No ulcer or other morbid condition was discovered. The gastric and abdominal wounds were closed. The patient recovered well, and all pain in the stomach has now practically disappeared.

EXPLORATORY INCISIONS.

CASES 26 AND 27.—These cases were both treated in the London Hospital. The first was a case of abdominal tumour in a man aged forty-six who had had abdominal pain, enteritis, and gastric troubles for nearly twelve months. The tumour was on the left side and had attained but small dimensions. Operation proved it to be a retro-peritoneal sarcoma behind the descending colon. This and other cases draw attention to the frequency with which retro-peritoneal sarcomata are found in men about middle life, and upon the left side. The first signs are nearly always a failing of energy and a sense of increasing weakness. The patient recovered well from the operation, and if the experience of like cases is of any value the mass will shrink for a while, or at least cease to grow for a period. The operation was performed on Oct. 11th. The second case was that of a man aged fifty-nine, who had ascites associated with symptoms which strongly suggested some stenosis of the bowel. On Nov. 1st an exploratory incision was made, which showed that the ascites was due to cirrhosis of the liver. There was no other sign of disease except a contracted meso-sigmoid colon, such as appears to be often the cause (or the effect) of troublesome constipation.

Wimpole-street, W.

NOTE ON DR. HINSHELWOOD'S COMMUNICATION ON WORD-BLINDNESS AND VISUAL MEMORY.[1]

BY SIR W. H. BROADBENT, BART., M.D. LOND.,
PRESIDENT OF THE NEUROLOGICAL SOCIETY AND PHYSICIAN TO ST. MARY'S HOSPITAL.

DR. HINSHELWOOD may be right in stating that "Kussmaul first clearly pointed out that blindness for words is capable of being met with clinically as an isolated condition." The article in Ziemssen, however, to which he refers was not the first in which attention was called to this remarkable condition. A case is reported in the course of an article on the Cerebral Mechanism of Speech and Thought[2] which exemplifies it perfectly. The summary of the case only need be quoted: "After an acute cerebral attack absolute inability to read printed or written words (except own name) while the patient wrote correctly from dictation and composed and wrote letters with a little prompting"—which, as stated in the text, he could not himself read afterwards. The condition was not named "word-blindness," and, in my judgment, the employment of this term has been misleading and unfortunate. In the case observed in 1871 and read before the Royal Medical and Chirurgical Society in February, 1872, the blindness for words was a part of a much larger defect, a complete loss of the faculty of naming an object at sight, and it is in order to point out this that the present note is written. The heading of the case may now be completed: "Inability to recall the name of the most familiar object presented to his sight, while he conversed intelligently, employing an extensive and varied vocabulary, making few mistakes, but occasionally forgetting names of streets, persons, and objects." Whenever word-blindness, so-called, has come under my notice since that time it has always been associated with inability to name an object presented to the vision; if a man cannot name a watch, *a fortiori* he cannot name a word. The path from the "visual perceptive centre" to the "naming centre" has been cut.[3] Case 9 of the same communication to the Royal Medical and Chirurgical Society was believed to exemplify interruption of the path between the auditory perceptive centre and the "naming centre" (word-deafness), and in a later communication[4] is related a case illustrating damage of the "naming centre" itself, a cortical area upon which, as I suppose, converge perceptions from all the perceptive centres of sight, hearing, touch, smell, and taste, for combination into a complete idea of any external object, the auditory contribution being the name. Attention may, perhaps, specially be called to two cases,[5] one with post-mortem examination, in which a clinical distinction was made between the sensory and motor parts of speech. A noun-substantive is the highest representative of the sensory aspect of language; all the other parts of speech are employed to set nouns in motion, so to speak, and are motor. In the cases alluded to the patients could say anything except nouns.

A remarkable feature in Dr. Hinshelwood's case is that the patient could read figures. In several of my illustrations of aphasia it has been pointed out that the patient could say and write figures, could tell the number of coins shown to him, and could count up to and beyond twenty, while he could not say the alphabet. Now the idea of number is an intellectual abstraction, and both in its conception (sensory) and in its expression (motor) it would seem that different sets of cells and fibres must be employed on a higher plane than, for example, the auditory cell groups which educate the vocalising cell groups.

Brook-street, W.

[1] THE LANCET, Dec. 21st, 1895.

[2] Transactions of the Royal Medical and Chirurgical Society, vol. lv., 1872, p. 162.

[3] In the numerous published cases which I have read I do not remember to have seen that the test of asking the patient to name objects has been tried.

[4] Transactions of the Royal Medical and Chirurgical Society, vol. lxi., 1878, p. 147.

[5] Ibid., vol. lxvii., 1884.

A CONTRIBUTION TO THE STUDY OF SOME FORMS OF ALBUMINURIA ASSOCIATED WITH KIDNEY TENSION AND THEIR TREATMENT.

BY REGINALD HARRISON, F.R.C.S. ENG.,
VICE-PRESIDENT, AND LATE HUNTERIAN PROFESSOR OF PATHOLOGY AND SURGERY, OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

I THINK the assertion may be made that if certain organs of the body occupied other positions than those where nature has placed them a variety of morbid conditions to which they are respectively liable would now receive somewhat different treatment from that which has hitherto been adopted. This is a consideration which naturally presents itself to us with greater force at the present time, when by the aid of antiseptic surgery all parts of the body are being

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brought within reach of surgical exploration and treatment with a degree of certainty and safety far beyond what the most sanguine could ever have anticipated. The most recent advances of this kind are illustrated by what has been done in the case of the brain and spinal cord.

Of other complex organs probably the eye furnishes us with the best example of what surgery is able to accomplish in removing obstacles and impediments to vision and in combating the disastrous effects of intra-ocular tension and the degenerations arising therefrom. For these advances are we not in a measure indebted to the accessibility of this organ both so far as relates to inspection and treatment?

Amongst other organs of the body the kidneys furnish us with examples of the most complex and delicate forms of structural development, as we might expect, considering the elaborate kind of excretion in which they are engaged. Like the eyes they are double organs, with sympathies existing between them by which impressions and actions are reflected from the one to the other. Relief afforded to one kidney, for instance, usually assists the other, whilst when the excretory power on one side is suspended or arrested the opposite organ speedily takes up the whole of this work. The surgery of the kidney, even in its present stage, may be regarded as one of the most important advances of the present century. What has been done for renal stone, growth, distensions with pus and urine, abnormal mobility, and other painful affections of this part is sufficient to indicate this. Nor is it at all likely that we have here reached limits which cannot be extended with advantage. I allude more particularly to the effects of tension arising out of excessive excretory efforts on the part of these organs and resulting in congestion and inflammation, which, in some instances, are probably more disastrous and far-reaching in their local consequences than those surgical conditions of the kidney which have been briefly noted.

I have referred to the eye as illustrating what surgery has accomplished in reference to tension and certain ill-effects arising out of it. Here one of the most disastrous effects of pressure is seen in that condition to which the term "glaucoma" is applied. The recognition of the true pathology of this affection and the adoption of mechanical treatment by iridectomy or an allied operation for its relief at once resulted in the saving of a vast number of eyes which previously to this discovery would have been lost.

I purpose considering in this paper some points connected with tension of the kidney relative to albuminuria and its treatment by surgical means. In the first place I would draw attention very briefly to the structural arrangement of the kidney. It may be said to be a highly organised gland surrounded by a thin, though fibrous, capsule, and divided up into departments or sections by barriers of a similar tissue. It is capable of distension to almost any degree by a gradual force acting from within, as, for instance, the retrograde pressure proceeding from strictures which oppose the escape of its excretion, but from the nature of its structural constituents is incapable of adapting itself to sudden emergencies of this kind. Before proceeding to notice some results which have followed certain operations I have practised upon the kidney, and the deductions which these seemed to warrant, there are two questions I should like to raise. In the first place, is there evidence to warrant a conclusion that the exudation of albumin by the kidneys is the result of structural damage directly occasioned, as might occur as the result of nephritis or renal congestion? And, in the second place, are the degenerative changes subsequently noticed in the chronic forms of these affections consequent upon the damage thus inflicted on the organ?

Possibly my surgical experience has led me to exaggerate the disastrous effects of tension on the tissues of the body, though for the most part it has been gained in regions which may be said to be less highly organised and less delicate than the excreting apparatus of the kidney. It certainly seems somewhat remarkable at the present day that so many different views exist, or have been put forward, explanatory of the process by which albumin exudes so as to form a variable part of the urinary excretion. These various theories I shall not attempt to discuss in detail or to reconcile. That albumin is frequently found in the urine under conditions necessitating high vascular tension, and where the excretory strain on the organ is considerable, as in the acute form of scarlatinal nephritis, cannot, I think, be denied. Referring to the latter point, Sir T. Grainger Stewart observes:[1]

"Albuminuria is very often due to changes of an inflammatory character in the epithelium of the tubules and in the stroma of the organ, and in a very large proportion of the cases in which it occurs in practice it is dependent upon this cause." That the changes which take place as a consequence of nephritis by the substitution of a lower for a higher excretory tissue, as we see in the cirrhosed forms of Bright's disease, are due to the damage the organs received in the active and initial stage of congestion seems by no means improbable. Sir Thomas Watson in his Lectures observed that "the stress or congestion which befalls the kidney in cases of febrile anasarca may set on foot a morbid process that long works silently and unobserved, but at last declares its operation by symptoms." We may perhaps argue that by the organisation of the products of inflammation and congestion, and by the repairs the latter may render necessary, an explanation may be found for some of the structural changes observed in connexion with certain chronic forms of nephritis. Nor can the fact be entirely discarded in connexion with this subject that the medicinal treatment of albuminuria, so far as relates to the altered state of the urine, cannot be regarded as entirely satisfactory or progressive. Commenting upon this point, Sir T. Grainger Stewart observes: "Sir William Roberts and Professor Rosenstein have come to the same general conclusion as Dr. Saundby as regards the inefficacy of drugs in diminishing albuminuria, and I have satisfied myself by a long series of careful observations that we have no right to credit any drug with the power of directly diminishing the discharge of albumin."

I will now proceed to the more practical part of the subject. This, though of a somewhat fragmentary character, presents points of interest which seem worthy of consideration, if not of further application.

Since the introduction of the more general adoption of direct exploration of the kidney through an incision from the loin or otherwise a certain proportion of cases have been met with where it failed to reveal any obvious cause for the symptom or symptoms which led to the adoption of the proceeding. It has, however, been frequently noticed that such cases were often completely and permanently cured by what was done. Amongst others Professor Annandale was one of the first to draw attention to this fact. A few examples of this kind, occurring at varying intervals during a somewhat lengthened experience of my own, have led me to believe that there may be other explanations for this than those hitherto offered. I regret that only scanty notes were kept at the time of some of my cases, arising from the fact that, in the absence of what was sought for, the existing conditions were insufficiently appreciated, whilst the results appeared either unexplainable or were referred to local states, such as the accidental fixation of a loose kidney, the division of a disordered nerve, or the moral effects of an operation. Further, I have frequently drawn attention at the time of exploration to the varying states as to tension the kidney presented in different individuals. In one case it would resemble that of a ripe plum, whilst in another the organ was flaccid and unresisting on pressure with the finger. Yet these differences were not always explainable.

In the early days of renal surgery I cut down on the kidney from the loin in a youth aged eighteen, expecting to find a suppuration either within or around the organ. The patient was suspected to have had scarlet fever three weeks before this was done and had since suffered from intense lumbar pain. He had had a slight rash, some desquamation, a sore throat, and albuminous urine with casts. I undertook the operation with some hesitation and limited my incision so as just to enable me to put my finger on the kidney. It felt so tense that I extended my incision and opened it with confidence, expecting to find matter. This was not the case, and I closed the wound with the feeling that I had made an error in diagnosis. There was a full discharge of blood and urine from the wound for some days. The latter was lightly plugged with lint and in the course of ten days or so healed soundly. After the incision was made the excretion of urine became far more abundant, and the albumin gradually and completely disappeared.

In 1887 I operated upon a man aged fifty years, who by nature of his occupation spent a large amount of his time underground. Occasionally he suffered from hæmaturia in conjunction with colicky pains about the groins, and I came to the conclusion that he was suffering from renal calculus. As, however, the symptoms were neither urgent nor confined to one kidney the consideration of operation was postponed. In the course of a few months after I first saw him,

[1] Lectures on Albuminuria, 1888.

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and whilst he was continuing his work underground, the urine became largely and constantly albuminous and there was some pain referred to the right loin. I took him into the Royal Infirmary at Liverpool, where I was residing, and explored the right kidney. The organ was found to be enlarged and tense. An incision of an inch in length was made through the cortex, and the pelvis was explored with the finger, but after careful examination no stone could be found. There was a considerable discharge of blood and urine, which continued for a fortnight or so, a drainage-tube being retained in the wound; on the withdrawal of the latter healing followed and the urine became quite normal. I heard some time afterwards that the patient remained in excellent health and was able to resume his ordinary occupation.

The only other case I shall refer to is one that came under my observation in 1893. It was that of a woman aged forty-four years, who had suffered from slight hæmaturia at times for a year previously; occasionally the urine was albuminous. Shortly after I saw her she had a severe attack of influenza, which was followed by an aggravation of her renal symptoms. She complained of pain on pressure over the left kidney, and the albumin not only increased in quantity but was constantly present in the urine. As she believed she had passed a small calculus some months previously I thought it a proper case for exploration, and this was accordingly made. The late Mr. Durham saw the patient in consultation with me. The left kidney was found to be swollen and very tense. It was opened and explored with the finger, but no calculus could be discovered. There was a free drain of urine with some blood, which continued for about a fortnight, when the wound closed. The patient is now quite well and the urine normal.

Looking at the three cases I have briefly related, I believe that the first was scarlatinal nephritis, the second nephritis from exposure to cold and damp, and the last subacute nephritis following most probably upon influenza. Amongst other features each case was characterised by the presence of albumin in the urine, which I am inclined to attribute to inflammation or its immediate effects. We do not, I think, sufficiently recognise the intense degree of vascular and tubular infarction that attends some grades of nephritis. Some years ago I saw a girl aged seven years who was suffering from scarlet fever of a malignant type. Almost complete suppression of urine was the leading feature in the case, and death took place in four days from the commencement of the illness. At the necropsy the kidneys were found to be so highly congested that I was not surprised at their being unable to excrete. I remember the passing impression arising in my mind that an incision into them appeared to be the only means that might have been effectual in restoring their function. In a recent paper on Scarlatinal Nephritis and its Varieties Dr. Meadows Turner[2] remarks: "Out of the 5109 cases fifty-five died with nephritis either alone or complicated with other lesions. This number includes those who presented some symptoms during life, as well as some others in whom post mortem extensive disorganisation of the kidney was found, though during life there were no sufficient symptoms for diagnosing such a complication."

That inflammation attended with exudation, but not necessarily with suppuration, is sufficient to destroy the functional power of an organ is evidenced in the case of the testes, where ability to procreate is sometimes lost by synchronous or successive attacks of epididymitis on the two sides. The late Mr. Henry Smith, in connexion with this subject, not only showed that the progress of this disease might be curtailed and pain removed, but that the function of the organ might be preserved by a limited division of the investing tunic. In this way, he urged, the disastrous effects of tension on the organ might be averted. I have frequently availed myself of this practice with advantage.

A few words may be added as to the nature of the operation which might be appropriate in cases of suspected kidney tension and as to the time and occasion of its application. It may be briefly stated as being that usually adopted for the exploration of the kidney with the finger by means of a small transverse lumbar incision. The surgeon will then be able to judge from the feel of the organ as to whether it is desirable to open it. If the indications are not clear the wound on being closed by sutures usually heals by first intention. At all events, no risk is incurred. In the second place, the operation should, of course, be reserved for cases where there is evidence that the recuperative power of kidneys suffering from nephritis is overweighted. Where after an attack of this kind the albumin is not disappearing from the urine, and there is a prospect, unless some relief is found, of permanently damaged kidneys resulting, then a trial of this expedient may be undertaken without adding to the gravity of the circumstances. In what time all traces of a nephritis, either acute or subacute, should have disappeared from the urine before the surgeon is called in is rather a point for the physician to determine. That many cases of nephritis with high tension and subsequent structural deterioration must necessarily be attended with cardiac hypertrophy or enlarged powers of circulation is at once obvious. Diminished capacity to excrete can only be compensated for by increase in the rapidity of the blood current. In the restoration of function we have the only safeguard against the development of this complication.

Lower Berkeley-street, W.

[2] Guy's Hospital Reports, 1894.

THE OPERATIVE TREATMENT OF CLEFT PALATE.[1]

[WITH COLOURED ILLUSTRATION.]

BY EDMUND OWEN, F.R.C.S. ENG.,

SURGEON TO ST. MARY'S HOSPITAL, AND SENIOR SURGEON TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET, W.C.

IT would, I think, be out of place if I made this the occasion of entering into a detailed account of the methods adopted in dealing with the cleft palates of the children whose brief clinical records form the basis of this paper. To do so would be to levy an unfair tax upon time and patience, and, possibly, to deprive me of the opportunity of making remarks upon the operation which might be more generally of interest. The five cases which form the basis of this paper happened to come under notice in my private work during the months of May, June, and July last. In most of them the cleft traversed the hard as well as the soft palate, and they were all dealt with on very much the same plan. In each case Mr. Henry Davis gave chloroform as the anæsthetic, partly by a flannel mask and partly by a Junker apparatus, and Mr. Kellock kindly helped me with the operation. Smith's gag was used, and the child's head was allowed to hang well back over the end of the table so that the blood might make its escape by the nostrils instead of entering the pharynx or larynx. All the children were operated on at the St. Helena Home, next door to Lord's cricket ground, which has the great advantage of being surrounded by a large garden which in some respects answers Bacon's demands as to what a garden should be. He says: "For the side grounds you are to fill them with variety of alleys, private, to give a full shade; some of them wheresoever the sun be. You are to frame some of them likewise for shelter, that, when the wind blows sharp, you may walk as in a gallery." And, surely, in such an environment as this, primary union is more likely to be obtained than when a child after the operation is shut up in a close ward or a stuffy house. I got the children out into this garden, if possible, on the day after the operation, and they amused themselves on the grass quietly and safely the livelong day. Such an arrangement could be carried out only in the spring and summer, and my experience is that this is by far the best time for operating. East winds, fogs, catarrhs, coughs and colds have then passed away, and, moreover, a good natural light can almost be depended upon for the operation.

When the question of operating upon a cleft palate is being considered, due regard should be paid to the aspect of the child, and careful inquiry should be made as regards the general state of health. The same precautions are, of course, advisable in the case of every operation in which, urgency being out of the question, the surgeon can choose his own time and place. But in the case of operations for cleft palate there is this difference, that if primary union is not secured complete failure is likely to result. If the edges of the palatine cleft do not adhere from the first, the child's

[1] A paper read at a meeting of the Medical Society of London Nov. 25th, 1895.

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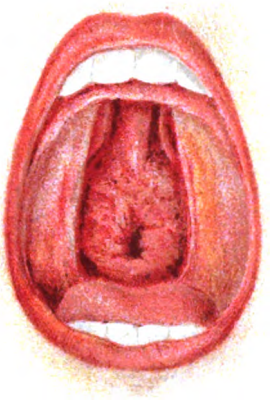
TO ILLUSTRATE MR. OWEN'S PAPER ON CLEFT PALATE.



CLEFT OF HARD AND SOFT PALATE.
With view of Enlarged Pharyngeal Tonsil (Adenoids).

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tongue and his food find their way between them, and inflammation, ulceration, and suppuration ensue; the stitches cut their way out or adhere uselessly to one side, and the child's mouth is probably left in a worse state than it was before, because the borders of the cleft are henceforward to be represented by firm and unpromising scar tissue. Failure to secure primary union after this operation is far more serious than it is, for example, in the case of the radical treatment of hernia or in the case of a harelip. In the former instance suppuration, though greatly to be regretted, does, as a rule, little more than delay the healing of the wound; and in the case of the harelip, as soon as the inflammatory swelling has subsided, the granulating margins of the labial flaps can be brought together and a secondary union promoted which, in all probability, effects in due course a most excellent result. For a cleft palate operation, then, the child must be in the very pink of condition, and the surroundings should be such that nothing is likely to disturb him. With the object of getting the child to adapt himself to the environment, it is well to have him placed in the charge and under the authority of the trained nurses for a few days before being operated on. Some children learn their first lessons in obedience in these circumstances.

We do not yet understand how it is that there should be an element of uncertainty in the results of operations for cleft palate. I suppose that my experience is not peculiar in this, that on completing a long, difficult, and unpromising operation, when I have remarked that I must not be too hopeful as to the result, the issue has been perfect; and, on the other hand, when I have prophesied a success for an unusually easy case, Nemesis, the daughter of Nox, has apparently overheard, and has condignly punished me. As to what may be the exact source of the micro-organisms which every now and then undergo successful incubation in the area of the operation, and thereby spoil the surgeon's work, I can say nothing definitely—I suppose that they are staphylococci and streptococci. The operator, however, should take care that he does not introduce any of them with his instruments or sutures, and with this object in view he must have all his material boiled just before using it. And although the delicate mucous membrane of the mouth does not allow of his using the customary carbolic lotion, yet at least he can take good care to have the child's mouth and his own fingers as aseptic as he can possibly get them. As regards the child's mouth, there is much that he can do. Enlarged tonsils and adenoids should be got rid of some weeks beforehand, and carious teeth extracted or efficiently dealt with in other ways. And if just before the day has arrived the tongue be found coated or the breath foul, or if the child be vomiting, purged, or coughing, or the temperature be raised, the operation must be postponed.

It has been remarked that, as regards the healing of wounds, the mouth may be left to take care of itself; and, for the most part, this is true. Taking into account the work of the dental surgeon, there is no region of the body in which so many wounds are daily inflicted as the mouth; and, with all this, how rarely does one hear of either constitutional or local trouble being caused by wounds in the mouth. They all heal quietly, though, for the most part, by granulation; but something better than this is needed after operating on a cleft palate. Not only must the child and the child's mouth be wholesome before the operation is undertaken, but the surroundings must also be favourable. Mischief-seeking germs want no better nidus than that afforded by the muco-periosteal flaps which have necessarily been injured by the operation on the palate. There they find moisture, warmth, and oxygen. No incubator could afford them a more generous or favourable treatment. If there happen to be such germs floating in the air the wound is more than likely to attract them, and when once there they cannot be dislodged or even controlled. It is well, therefore, as I have already insisted, that the operation should be done in an atmosphere which is as free, fresh, and favouring as possible. I am anxious to hear the opinions of other surgeons in this matter, but my own experience is that cleft palate operations turn out much better in private practice than in hospitals. In hospital work some cases do perfectly well, and then come a series of disappointments, partial or complete. Yet, so far as the surgeon could tell, the one set of cases resembled the others as nearly as, in clinical work, balance and average are obtainable. I think it is a good plan for the surgeon to keep out of sight upon the day of the operation, so that when he subsequently appears upon the scene he may be regarded as a kind and sympathetic friend. In this way he gains the child's confidence and the privilege of looking at the palate whenever he wishes. Not that inspection can do any good. Though, on the other hand, if the child does not object, it can do no harm. As regards the operation in these children, it was begun by paring a slender strip of mucous membrane from each side of the gap from the tip of the uvula to the very front of the cleft. A free incision was then made along the alveolar aspect of the palate, close against the inner borders of the teeth, and the strips of muco-periosteum which were included between these alveolar incisions and the borders of the cleft were carefully detached by raspatories from beneath the palatine arch and shifted inwards to the middle line. The tension was then relieved by severing the aponeurotic attachment of the soft palate to the posterior border of the hard palate and by extending the alveolar incision backwards as far as seemed necessary through the entire thickness of the soft palate. By this last means the elevators and tensors of the palate and the palato-pharyngei were entirely deprived of injurious influence upon the line of suturing. Though the chief cause of failure of union after operation is probably the incubation of septic micro-organisms, still the risks of the line of suture giving way on account of the child vomiting, crying, or coughing must be reckoned with. Nevertheless, I have seen so many cases in which one or more of these direct causes of danger have been present in a marked degree and yet have done no harm, that I am not much alarmed at their occurrence. If the sutures are soundly inserted they ought to hold. That woman would hardly be worthy of the name of "nurse" who allowed the child after operation to stick his finger into the mouth with the hope of clearing away some unknown source of irritation or annoyance. But no one can prevent the child sucking at the wound or even thrusting the tip of the tongue into the line of sutures. I have, however, adopted a little plan which I think effectually prevents the latter element of danger. It consists in using silver wire sutures somewhat liberally and, after twisting them up, cutting them so that about one-eighth of an inch of each suture bristles downwards along the middle line like the barbs on the wire in a cattle-fence.

The less the child is disturbed after the operation the better. It is inadvisable to distress or frighten him by giving him food through the nares by a soft tube. If he continues to vomit from the effects of the chloroform the introduction of food into the stomach will certainly be harmful. The best thing is to darken the room and let the child sleep off the effects of the operation. If he makes signs that he wants something to drink a teaspoonful or two of water may be given. Probably in this way twenty-four hours may be passed over. After this. small quantities of beef-jelly may be given in a tea-spoon. The jelly slips down easily and is a clean sort of food. It is far preferable to milk; it does not form curds in the stomach, as milk does, and it is, I think, more easily absorbed. If, when the feeding is begun, the child will allow the nurse gently to spray or syringe out the mouth into a basin, so much the better. But it is a mistake to attempt such irrigation if it frightens the child. As regards the fluid for irrigation, sanitas and water or a very mild solution of carbolic acid or of Condy's fluid does well. In the course of a day or two a little sweetened orange-juice, chicken or meat which has been run through a fine sieve, bread and milk, or a soft custard pudding may be given.

CASE 1.—The first case is that of a girl aged six years and a half, who was sent to me by Mr. Morton Smale last May. This was the worst cleft that I ever attempted to close. It extended through the entire hard and soft palate, the widest part of the cleft being seven-eighths of an inch. One of the students of St. Mary's Hospital, Mr. A. W. Sanders, has made an excellent water-colour drawing of the mouth (a little less than life-size), showing through the cleft the pharyngeal tonsil.[2] Mr. Smale also kindly had a cast of the palate made for me (Fig. 1). A week or so before operating I prepared the way by having some carious teeth extracted and by scraping off the pharyngeal tonsil, or, as it is called, the post-nasal adenoids. I also scraped over the faucial tonsils. The pharyngeal tonsil is well shown in the coloured illustration. The staphyloraphy was a long and tedious affair, and though we succeeded in getting the edges of the cleft together without undue tension, in a few days the whole thing had broken down from stem to stern.

[2] This sketch has been reproduced by chromo-lithography, and appears as a Supplement to this number of THE LANCET.

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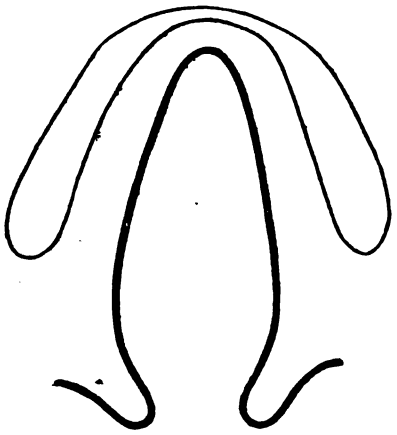
Moreover, the child looked pale and ill, and the palate and naso-pharynx were covered with foul and tenacious mucus. Not a stitch had held, and the cleft appeared as wide as ever, with an unhealthy gap along the inner border of either alveolar process where the lateral incisions were made. There was no sloughing, however. About ten days after the operation, when the wounds had begun to clean up a little, I placed the patient again

FIG. 1.

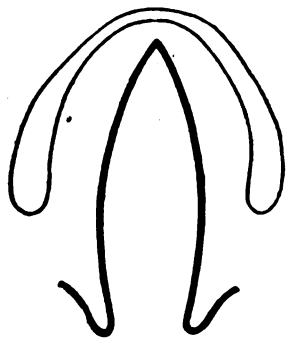


Cleft of hard and soft palate (actual size).

under chloroform, and passing in some strong sutures brought the flaps together once more in the hope that they might be got to unite by granulation. This hope was partly realised; the hard palate is now entirely closed, but a very wide gap in the velum remains to be dealt with when circumstances appear to be favourable.

I am loth to leave the brief report of this case without saying, in parentheses as it were, a few words about the pharyngeal tonsil which, with the utmost fidelity to nature, Mr. Sanders has depicted through the wide cleft. It will be noticed that it consists of a dark, median aperture surrounded by an irregular granular mass. This mass is made up of lymphoid material exactly like that surrounding the apertures in the faucial tonsils. It is the enlargement of this lymphoid tissue which constitutes the disease known as post-nasal growths, or adenoids. The faucial tonsils of this girl were enlarged, and she was also developing a fair crop of

FIG. 2.



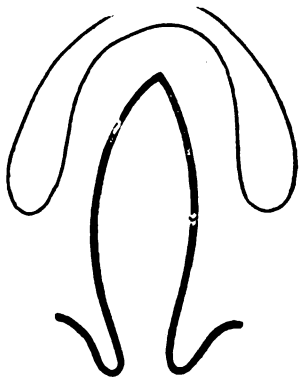
Cleft of hard and soft palate.

adenoids, which were, as I have already said, scraped away before the palate was touched. The central opening of this tonsil leads into a small cavity, which is often spoken of as the "pharyngeal bursa." Early in fœtal life the cavity is continued upwards towards the third cerebral ventricle by a duct known as the cranio-pharyngeal canal, where it apparently ends in anatomical and developmental obscurity.

CASE 2.—The patient was a girl, four years of age, known to Dr. Griffiths of Swansea and to Mr. L. Lewis of Neath, with a cleft extending from a short distance behind the incisor teeth through the soft palate (Fig. 2). It was of fair width, and also through it was visible a large spongy pharyngeal tonsil. I cleared away the adenoids in May last, and a few weeks afterwards I operated on the cleft. Union was perfect throughout except for a pinhole opening towards the front. The hole, however, was so small as not to be actually visible, being hidden in the mucous membrane. By this time I dare say that it is completely closed.

CASE 3.—This patient was a little girl aged three years and one month, under the care of Mr. Biggs of Hendon. Her mouth was small and the muco-periosteum at the edges of the cleft (which involved most of the hard palate) was extremely thin. But as a set-off against this the palate was well arched and the halves of the velum—as shown in the adjoining sketch (Fig. 3)—were not far asunder. The union

FIG. 3.



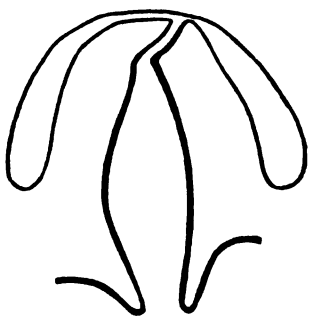
Cleft of hard and soft palate.

was complete throughout. The operation was done in April. I saw her on Nov. 16th last, and found a sound linear scar running through the middle line of the palate and uvula. Just behind the incisor teeth two blackened wire sutures were harmlessly lingering.

After operating on a child I never trouble to remove the sutures, unless when the wound has healed they are still scratching the tongue. The sutures do no harm and they may be safely left to find their own way out.

CASE 4.—This patient was a girl, aged two years, who was under the care of Dr. Gardner of Bournemouth. I had operated on her hare-lip when she was two months old, and had then arranged to deal with the cleft of the palate when she had completed her second year. The cleft extended through the hard palate, having been originally continuous with the fissure in the lip, which was to the left of the median line (Fig. 4). At the time of operation—which

FIG. 4.



Complete palatine cleft extending forwards through inter-maxillary bone.

was the beginning of last June—the palatine cleft still ran through the intermaxillary bone. The disadvantage of this feature was that on the left side the flap of muco-periosteum could not be detached at its anterior extremity lest its blood-supply should prove insufficient. However, the case turned out very well, and when I saw the child on Nov. 15th there was sound and perfect union throughout, except for the presence of a hole at the back of the hard palate of the size of an ordinary shot-corn. With the growth of the child this

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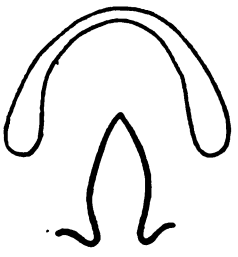
will entirely fill up, and, indeed, at the present time I am not sure that the gap does actually extend through into the nasal cavity.

CASE 5.—This, the last of the series, was an infant aged eight months, who was sent to me by Mr. Parsons of Wimbledon. Her cleft involved the soft palate and the posterior third of the hard palate (Fig. 5). I operated on

FIG. 5.



Cleft of soft and of back of hard palate.

er on July 10th, and she was taken home a fortnight later with perfect union even to the tip of the uvula. This was the youngest age—eight months—at which I have ever operated on a cleft which implicated the hard palate, though I have successfully dealt with clefts of the soft palate at an earlier period.

It will be, I think, an interesting and instructive element in the discussion if an expression of opinion is obtained as to what is the best time for endeavouring to close a cleft—(*a*) in the soft palate, and (*b*) in the soft and the hard palate of a healthy child. For my own part I am getting earlier and earlier with my operations; and for this advance I am much indebted to an article written by Mr. Clutton. The fourth patient was only just two years old when I operated on her complete cleft. When her father wrote to me a few days before the operation he said: "She is now two years old, and as far as we can judge her speech will be affected by the cleft." He hit the nail upon the head. If the speech is to be improved to the utmost the mouth must be roofed in at the very earliest moment. For a soft palate, the child being in good health, the time for operating is somewhere in the first six months, I think. For a hard and soft palate together, it is, I think, in the second year, but I should not be surprised to hear that it may safely be shifted to a still earlier period. It will be noticed that in none of these cases have I suggested the division of the operation into two stages—one for the hard and the other for the soft palate. I used formerly to practise that method in certain difficult cases, but I have now given it up. It is full of disadvantages, and I do not find that it possesses any merit to counterbalance them.

Great Cumberland-place, W.

TWO CASES OF LYMPHADENOMA PRESENTING UNUSUAL SYMPTOMS, WITH POST-MORTEM EXAMINATIONS AND COMMENTS THEREON.

BY STEPHEN MACKENZIE, M.D. ABERD., F.R.C.P. LOND.,
PHYSICIAN TO, AND LECTURER ON MEDICINE AT, THE LONDON HOSPITAL.

THE two cases about to be related present some unusual features, which in the first were fully explained by the result of the necropsy. They have sufficient interest and importance to appear to me to be worthy of being placed on record.

CASE 1.—A man aged twenty years was on Oct. 30th, 1895, admitted into the London Hospital, under my care, for lymphadenoma. (The notes of the case were taken by Dr. R. M. Going, clinical clerk.) There was no gout, rheumatism, or tuberculosis in the patient's family, and no history or suspicion of syphilis. The present illness began on Sept. 11th, 1895, with acute lumbar pain, which gradually extended first to the right and subsequently to the left sciatic region. About the end of September he was admitted into St. Thomas's Hospital, under the care of Dr. Sharkey, for "double sciatica." At this time he had some pyrexia. He remained in hospital about a fortnight and then discharged himself. After this the pain extended to the abdomen, and Dr. F. H. Davies of Camberwell, his medical attendant, believed he could detect a tumour in that region. I was called in consultation and advised his removal to hospital. Since the commencement of his illness there had been increasing weakness, causing inability to stand, copious night sweats, and numerous attacks of slight epistaxis. On admission to hospital he had an anxious expression, marked anæmia and emaciation, dorsal decubitus, and acute lumbar pain, which was worse on sitting up. The pulse was 120, the respiration 38, and the temperature 102° F. There was a large oval swelling under, and in front of, the middle of the right sterno-mastoid, evidently a mass of enlarged glands. There were also enlarged glands in both supra-clavicular regions, at the left angle of the lower jaw, and in both inguinal regions. They were painless, well-defined, and freely movable under the skin. There was a large patch of discoloured skin over the sacral region, tender to the touch, and giving a somewhat boggy feeling; a sinus situated over the left posterior superior iliac spine seemed to communicate with it. The left ankle and foot were œdematous, but there was no œdema of the thigh or thrombosis of the saphenous vein; the left leg could not be raised by the patient from the bed, but it could be rotated. The extensor muscles of both legs were extremely atrophied, and there was marked tenderness of the calves, but no tenderness over the sciatic nerves. The right knee-jerk was exaggerated, the left being only just present; ankle-clonus was present on the right but not on the left side; the right plantar reflex was well-marked, and the left was only just present. Sensation to touch and pain was normal, but to heat and cold it was absent below the right knee and in the lower half of the left leg. The abdomen was somewhat distended and was tympanitic all over, and, though easy to examine, no tumour could be felt. Nothing abnormal could be felt per rectum. The liver was slightly enlarged. The spleen appeared to be enlarged on percussion, but it could not be felt below the costal margin. There was marked retraction of the second intercostal space to the right of the sternum, with bronchial breathing and bronchophony, but no dulness. No other signs of consolidation were observed. There was some œdema at the base of both lungs. The patient had reflex incontinence of urine (when he felt a desire to micturate he could not restrain it). No albumin was present in the urine. No changes were detected with the ophthalmoscope. Examination of the blood gave the following results. On Nov. 4th the red corpuscles amounted to 42·4 per cent. and the hæmoglobin to 58 per cent.; on the 11th the former were 37 per cent. and the latter 35 per cent.; and on the 16th they were 22 per cent. and 30 per cent. respectively. There was no increase of white corpuscles. The treatment consisted in the exhibition of gradually increasing doses of liquor arsenicalis (four minims to fifteen minims thrice daily). The pyrexia continued, and the patient gradually lost strength. On Nov. 2nd he complained of "soreness of the throat" and difficulty in swallowing; nothing abnormal could be seen on laryngoscopic examination; the difficulty in swallowing increased till liquid could only be taken. The œdema of the lungs increased, diarrhœa developed, the right foot became œdematous, the temperature gradually fell, and the patient died on the eighteenth day after admission and nine weeks after the commencement of the illness.

Necropsy.—The post-mortem examination was made by Dr. Schorstein, whose careful and complete notes are condensed below. The body was much wasted. A distinct abdominal tumour was felt. There was irregular wasting of the muscles of the thighs, especially the left; slight comparative wasting of the muscles of the left arm was also observed, but no wasting of the hands or feet. There were large masses of glands above both clavicles and in the groins. The upper lobe of the left lung was bound down by old adhesions, none being present on the right; both pleuræ contained some yellow serous fluid. A large mass of matted glands surrounded the right bronchus and pressed chiefly on the branches going to the middle and lower lobes, which were largely collapsed. The rest of the lungs was œdematous. The left external iliac vein was partially invaded by the growth, and a small thrombus of dark colour lying along the outer side of the vessel an inch and a half long was contained

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in it. The lumen was diminished, but no actual blocking of either external iliac vein was present. A large glandular mass extended along the aorta from the diaphragm to the pelvis and invaded the sacrum. The whole of the lumbar nerves on both sides, and all the sacral nerves as they issued from the foramina, were surrounded and infiltrated by the growth. Both psoas muscles were invaded by the growth, and the left was much atrophied. On the right side the growth extended back between the transverse processes of the second, third, and fourth lumbar vertebræ, invading the erector spinæ muscle, and it extended along the nerves into the spinal canal, forming on the posterior part of the bodies of the second to fourth lumbar vertebræ, slightly to the right of the middle line, a protuberant mass one-sixth of an inch in elevation, lying beneath the dura mater, pressing it backwards, and pressing on the right side of the cauda. The spinal cord seemed to be normal on section to its lowest limits. The cauda was slightly pressed upon by the growth within the canal, but all the nerves below the first lumbar were surrounded by growth and involved after their exit through the anterior foramina. The pelvic mass of new growth invaded the sacrum and both sacro-iliac joints. The left upper angle of the sacrum was especially involved, and the growth formed a mass in the sacrum, left sacro-iliac joint, and adjoining portion of the ilium, being extremely soft, and breaking down on the slightest pressure. With this a sinus over the posterior superior spine of the ilium communicated, and there was a small bed-sore over the lower part of the sacrum. At the upper part of the abdominal mass the growth formed a ring, completely surrounding the lower part of the œsophagus where it joins the cardiac and of the stomach. The mass pressed upon the œsophagus and partly invaded its outer wall, but the mucous membrane was quite intact. The mesenteric glands were all enlarged. The spleen weighed 10 oz. and was soft, natural in colour, and free from growth. The liver weighed 4 lb. 1 oz.; the central veins were more full than natural, being otherwise normal. The remaining organs presented no important changes. The growth on section was yellowish-white, very soft, and dotted with hæmorrhages, small in size, and little masses of black pigment. Under the microscope there was seen very little reticulum, forming large meshes, and between the meshes there were closely packed masses of small round cells with badly defined nuclei.

Remarks.—When I first saw this patient with Dr. Davies on Oct. 23rd he gave me the history of the "double sciatica"; he told me that the patient since being under his observation had had a temperature averaging about 102° F., and he thought he had detected a mass in the abdomen. On the occasion of my visit neither of us could feel it. A day or two before my visit enlargement of the glands on the right side of the neck was detected. I examined the patient carefully all over, and found that there was pain on movement of the lower extremities, especially the left, but at that time no obvious weakness; at least, the pain caused by movement appeared to account for its limitation. The skin over the sacrum was red, tender, and œdematous. I was impressed with the great pallor of the patient, and this, together with his high temperature, which had persisted for some time without any satisfactory explanation, as well as the attacks of epistaxis, led me to express an opinion that he was probably suffering from some grave disease of the blood. The enlarged glands in the neck, which were firm and covered by healthy skin, appeared to supply the key-note to the case. With some diffidence I expressed an opinion that it would prove to be one of lymphadenoma, and I suggested that the pain in the lower extremities might be due to invasion of the cord or nerves by a growth of this nature. I offered to take the patient into the hospital under my care in order that he might have the benefit of better nursing and treatment than he could receive at home. When he came to the hospital, seven days later, the disease was more advanced. The glandular swellings now involved the left side of the neck and both inguinal regions, and their characters were of a pronouncedly lymphadenomatous nature. The examination of his blood showed a high degree of anæmia without any increase of white corpuscles. He now had œdema of the left foot and ankle, wasting of the extensor muscles of the thighs, and tenderness of the calves. The left knee-jerk was almost abolished, whilst on the right side the knee-jerk was exaggerated and ankle-clonus present. The careful observations of Dr. Going further showed that whilst sensation to touch and pain was not altered he had lost thermic sensibility in the lower half of the left leg and below the knee in the right. The condition of the skin over the sacrum appeared to be due to a bedsore produced before I first saw him. The liver was found to be slightly enlarged. With these additional observations I was able to reaffirm my original diagnosis with greater confidence—viz., that the patient was suffering from lymphadenoma, and that the new growth involved the spinal cord or nerves of the lower extremities. As to which of these the paralysis of the legs was due I had some doubts; but the tenderness of the muscles, and in a degree the sensory disturbances, made me feel the difficulty in excluding the nerves. The disease rapidly progressed, the only new symptom arising being dysphagia. The voice was natural, and laryngoscopic examination showed no disease as far as the level of the larynx. I conjectured, therefore, at the bedside that it was due to pressure on the œsophagus by lymphadenomatous growth. The post-mortem examination verified the diagnosis to a degree which I wish were my usual experience. There was an extensive new growth forming a large solid tumour behind the attachment of the mesentery, extending from the level of the third lumbar vertebra downwards into the pelvis. It involved the posterior part of the left ilium and ala of the sacrum, invading both ilio-sacral joints, and the sinus detected during life over the posterior superior spine of the ilium extended down to the diseased joint. The spinal canal was invaded by the disease. The spinal cord was not actually compressed, but the cauda equina was. Another mass pressed upon the termination of the œsophagus in the cardiac orifice of the stomach, but the stomach was not infiltrated. Another mass involved the roots of the lungs and by pressure on the right produced collapse of the middle and lower lobes of that lung. The lymphatic glands of the neck and groins were affected. The liver and spleen, though enlarged, had no new growth in them. The growth, examined microscopically, proved to be lymphadenoma. The diagnosis was thus confirmed in every particular. The only important additional revelation was the growth at the roots of the lungs, producing some collapse of the right lung. This might have been detected, but the patient was so weak, and movements caused him so much pain, that the back of the chest was not examined during the last week of his life. The physical signs in the right intercostal space afforded some grounds for a diagnosis of this lesion. The accuracy of Dr. Davies's observation earlier in the case of an abdominal tumour was also established; but, probably owing to distension of the intestines, this could not be felt later. The most unusual feature of the case was the invasive character of the growth. I do not remember to have previously met with a case in which the spinal cord was penetrated by a lymphadenomatous growth from without, and it is certainly very unusually recorded in the literature of the subject. But, though the spinal canal was penetrated, the cord was not actually involved in the growth either by infiltration or pressure; at least, the cord was not in any way flattened, as it would have been had it been subjected to any degree of pressure. The tumour, when its bloodvessels contained circulating blood, would, of course, have been of larger dimensions and may have touched the cord, but not so as to compress it to a degree to give rise to symptoms. The pain, wasting, weakness, and anæsthesia must therefore be referred to pressure on the cauda equina and the nerves. The œdema of the lower extremities was partly due to pressure upon and (on the left side, where the œdema commenced) invasion of the external iliac vein, where a thrombus was found, though the lumen of the vein was not entirely occluded. No doubt cardiac feebleness from his exhausting febrile disease, and loss of movement in the limbs, were contributory factors. The invasion of the sacro-iliac joint was also an unusual feature of the case, as well as the inflammation of the skin over the sacrum due to implication of the posterior branches of the sacral nerves. The inability to raise the left thigh whilst power of rotation remained is probably explained by the direct implication of the psoas muscle. The disease ran a much more rapid course than is usual in lymphadenoma, illustrating both in its course and invasive characters the high degree of malignancy to which this disease may attain, and is in contrast to the almost chronic characters which some cases of lymphadenoma present. In this respect, as well as in its histological characters, lymphadenoma approaches so closely to the sarcomata that it is regarded by many pathologists as a variety of sarcoma—viz., lympho-sarcoma.

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CASE 2.—A man aged fifty-three years was on March 20th, 1895, transferred to my care by my colleague, Mr. J. McCarthy. The patient complained of weakness, wasting, and pain in the "inside." The following notes are reduced from the records of Messrs. H. Innes and H. F. Tod. The patient's father was gouty, but there did not appear to have been any other tendency to disease in the family. He himself had been a hard-working man, a moderate drinker in recent years, but at one time took stimulants rather freely. He was the father of eleven children all of whom were healthy. He had always been neurotic. He had suffered from gonorrhœa thirty years before, but had never had syphilis. He had had a "slight touch of rheumatism, which was more of a sciatica," in both legs four months previously. It would begin about 4 o'clock in the afternoon and last till about 2 A.M. the next morning. The pain was excruciating, and he could hardly walk. He had suffered from "winter cough" the previous three years. His present illness began in the previous November with pain in the stomach, where he had a sense of weight and a feeling of "wind," which were increased by food and towards evening. His appetite was good at that time and he did not vomit. His symptoms continued in spite of treatment, and he noticed that he was losing flesh. For some years he had had some vaso-motor functional disorder in his hands and feet, not amounting to Raynaud's disease. On admission he said that since November he had not been able to lie on his left side on account of pain. He could not sleep at night owing to pain and a sense of weight in his stomach. He was anæmic, with a yellowish tint of the skin, which was dry, harsh and furfuraceous. The veins of the neck pulsated. He said that the week before last the calves of his legs swelled up and had been puffy occasionally since. The tongue was slightly deflected to the right, and was dry and coated with white fur. He had no appetite; the bowels were regular; the abdomen was distended and was tympanitic in front and somewhat dull in the flanks. He complained of pain, which was most marked in the epigastrium, but extended into the right and left hypochondria. There was tenderness on pressure, especially in the flanks; there were borborygmi; but no tumour was detected. The liver extended from the sixth rib to a little below the costal margin. The spleen was enlarged, extending from the seventh rib to some distance below the ribs, where it could be felt to have a rounded edge. The stomach resonance extended well up into the thorax. The pulse was 93; the arteries were somewhat tortuous, but tension was not increased. The apex-beat was in the fifth space and feeble; dulness was lost from stomach resonance. There was no bruit. No abnormal signs were detected in the lungs beyond a few crepitant râles at the bases posteriorly. There were numerous enlarged glands in the neck, extending from the lobule of the ear to the supra-clavicular fossa on each side, but larger on the left side than the right. They were hard, and matted together when large, but when small isolated and movable; they varied from the size of a horse-chestnut to that of a pea. There were enlarged glands with the same characters in both axillæ and both groins. They were not tender at any part. The first glandular enlargement had been noticed seven years ago on the left side of the neck, and the glands had been increasing in size and extending in range since then in the neck, but he had not noticed them elsewhere. No abnormal signs were observed in the fundi. The temperature was normal, and no albumin was present in the urine. The knee-jerks were present. The patient could walk, but became breathless on exertion. He had lost much flesh lately. The blood when examined a few days later showed 76 per cent. of red corpuscles; there was no increase of white corpuscles, which in eosin- and logwood-stained specimens showed some varieties, but no one kind was predominant. The progress of the case may be briefly summarised as follows. Œdema of both feet appeared, extending to the legs, and later to the back. The urine remained free from albumin to the end; the quantity slightly diminished, but the specific gravity was within the normal range. The temperature was usually near to the normal, but was slightly raised at the close. Complete anorexia became established and was attended with some nausea but no vomiting. He suffered a good deal of pain and discomfort in the stomach. Examination of the blood at a later period showed 60 per cent. of corpuscles, the proportion of white to red being 1 in 120; and one week before his death the red corpuscles amounted to 89 per cent. and the hæmoglobin to 54 per cent.—there was 1 white corpuscle to 100 red corpuscles. Cough and some breathlessness developed; the physical signs of bronchitis were present, and later there was evidence of basic œdema. He died on May 13th. The treatment consisted of the administration of arsenic (ten minims of Fowler's solution three times a day), washing out the stomach every second day, and chloral and bromide of potassium for sleeplessness. Tabloids of supra-renal capsule were tried for some days, one being taken after each meal and one at bedtime. They seemed to increase the nausea, and when the patient took them his temperature began to rise and become remittent. As they did not appear to exercise any favourable influence they were discontinued.

Necropsy.—A post-mortem examination was made on May 14th, 1895. The following notes were taken by Dr. Bertrand Dawson. In the abdomen a hard, dense, and whitish tissue was adherent to the bodies of the vertebræ. It was chiefly situated in the upper part of the abdomen, but extended in smaller amount as far down as the bifurcation of the aorta. The growth above was adherent to the posterior aspect of the stomach, and this viscus was immovably fixed; it also surrounded the pancreas, which could not be separated from it. Many enlarged glands were buried in this dense tissue. On cutting into this mass the section resembled scirrhus, but a careful examination of several microscopic sections showed it to be nothing but dense fibrous tissue surrounding enlarged glands. Chains of enlarged glands lay along the curvatures of the stomach. The mesenteric glands were also enlarged. The above growth closely encircled the supra-renal capsules, which could not be separated from it, but the latter were quite healthy, as were also the kidneys. The spleen was much enlarged, weighing twenty-one ounces. On section it showed many small white nodules which were typically lymphadenomatous. As regards the liver the glands in the portal fissure were much enlarged, but there was no infiltration of the organ. There were old adhesions of the pleuræ on both sides of the chest. The bronchial glands were a little enlarged. Microscopic section showed the usual appearance of lymphadenoma.

Remarks.—There are several points of interest in Case 2, which was treated previously to Case 1, but I couple it with the former on account of the patient having suffered from pain in both legs, which was thought to be "sciatica." Lymphadenomatous growth was found adherent to the bodies of the vertebræ as low down as the bifurcation of the aorta. Attention was not particularly directed to this part at the necropsy, but in the light of the subsequent case (Case 1) I regret that more care was not given to the examination of the sacral nerves, which may have been compressed by growth which did not attract observation. The case in most respects exemplified the usual course of this disease—viz., glandular enlargement, limited for a long time to the neck, and then later generalisation. In this case the spleen had lymphadenomatous growths in its interior, whilst in Case 1 none were present. There was one further feature calling for remark—the predominance of gastric symptoms. It happened that when this patient was in the hospital I had at the same time a case of leucocythæmia as well as one of pernicious anæmia. I made the three cases the subject of a clinical lecture, instituting a comparison and a contrast between the three diseases. In commenting on the case of lymphadenoma I drew attention to the gastric symptoms and discussed the possibility of there being cancer of the stomach. I remarked, however, that, whilst the diagnosis of cancer of the stomach would explain the pain, nausea, complete anorexia, and the wasting and anæmia, it would not account for the generalised lymphatic enlargement. At the post-mortem examination the appearance of the stomach made all present suspicious that there was scirrhus of that organ, but careful examination showed that the infiltration which fixed the viscus was lymphadenomatous growth with an extreme amount of over-growth of fibrous tissue. Both cases were treated with arsenic, but without benefit, though in a very small minority of cases the drug undoubtedly appears to exercise an almost specific influence. I know of no criterion by which the cases in which the treatment will succeed can be determined, but it should certainly, in spite of many failures, be tried in all cases. The non-success of the supra-renal capsule extract should not discourage other attempts to try this remedy. The disease was very far advanced when it was prescribed. The suggestion of its use came from Dr. Oliver of Harrogate, who one day accompanied Dr. Ralfe on his visit when he was in charge of my wards.

Cavendish-square, W.

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CASES OF HEART DISEASE TREATED BY THE "SCHOTT" METHOD.

BY LESLIE C. THORNE THORNE, M.D. DURH.,
LATE HOUSE PHYSICIAN TO ST. BARTHOLOMEW'S HOSPITAL.

SINCE the method of the treatment of chronic heart disease known as the "Schott" method is at the present time more or less on its trial in England, I venture to give a short account of my experience of this treatment during four months which I spent at Llangammarch Wells, Central Wales, where I had under my care twenty-six cases. Llangammarch Wells is in every way admirably suited for a health resort. Facing north-west and being 600 feet above Ordnance datum, but well protected from the east by a high range of hills and separated from the sea coast by little else than mountainous country, the character of its air is most invigorating, and, quite apart from the therapeutic value of the "Barium" springs, it would be difficult to find any place better suited for the successful carrying out of this treatment. My cases comprised many different forms of cardiac disease, and all but two gave most satisfactory results. In one of the latter calcareous degeneration of the vessel walls played a prominent part in the circulatory mischief, whilst in the other malarial attacks occurring in a patient who had lived in India for many years prevented the treatment from being properly carried out. The outlines of the treatment as adopted by Dr. Schott are now too well known to need description, so it is my intention here, firstly, to briefly discuss the *rationale*, and secondly, to give a few results of the treatment, rather than to describe a method which has been recently so well expounded by more than one observer.[1] I would only state that I began the treatment by baths in the waters derived from the "Barium springs" of Llangammarch Wells, the constituents of these waters being, according to an analysis made at THE LANCET Laboratory in November, 1894,[2] as follows:—

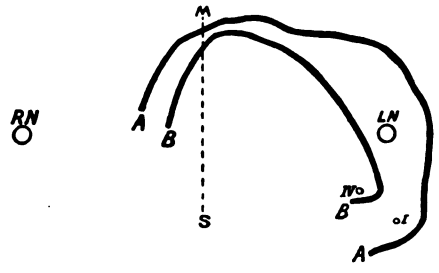
	Grains per gallon.
Chloride of barium	6·749
Chloride of sodium	186·200
Chloride of calcium	85·160
Chloride of magnesium	20·100
Chloride of lithium	0·847
Chloride of ammonium	0·262
Alumina and silica	3·340
Bromine as bromide	Distinct traces.
Total mineral matters	302·658

To these natural constituents I at first added sodium chloride, later I added calcium chloride, and lastly Sandow's effervescing tablets in order to approximately represent the different strengths of baths used at Nauheim; the exercises and the internal administration of the waters also formed part of the treatment.

The two theories at present upheld as to the *rationale* of the system are: firstly, that of Dr. Schott, who maintains that the baths and exercises act upon the heart through the nervous system, causing a reflex influence, which stimulates the action of the cardio-inhibitory nerves and thereby slows and strengthens the pulse; and, secondly, that adopted by Sir William Broadbent, Dr. Bezly Thorne, and others, to the effect that the baths and exercises cause dilatation of the muscular and cutaneous vessels and thus relieve the heart from backward pressure. Dr. Robert Saundby maintains that the effect of the baths and exercises is to slow the heart and raise the blood-pressure, supporting his opinion by Marey's law, and giving sphygmographic tracings before and after baths, and exercises to illustrate his points, and there is no doubt that his tracings taken before and after exercises do show what he maintains, but those taken before and after the baths show very little difference, one of the two latter tracings indicating, in fact, a slightly larger volume after than before the bath. It is my opinion, formed upon the observation of my cases, that as a general rule the pulse is reduced in frequency, increased in volume, and decreased in tension both by the baths and by the exercises, and this, I take it, is the result that should be aimed at: in the baths by the regulation of the strength and the time of immersion, and in the exercises by regulating the number of exercises given and the resisting force employed. I give below sphygmographic tracings of two cases taken before and after baths (Nos. 1, 2, 3, and 4), and those of two cases taken before and after exercises (Nos. 5, 6, 7, and 8), which show precisely the points I maintain. These indications lead me to believe that the effects of the baths and exercises upon the circulatory system are principally mechanical, the baths acting more directly on the vessels of the skin, and the exercises on the vessels of the muscles, causing both of these sets of vessels to dilate. In this way the heart has less pressure to work against, so that it is enabled to work more slowly and more efficiently, the greater calibre of the vessels causing the arterial tension to be lowered. The heart's action, being less rapid and rendered more powerful, probably raises the arterial tension again, but not to the extent it exhibited before the bath or exercise was commenced. I now propose to describe a few cases and to record the sphygmographic tracings and cardiac dulness of each before and after treatment. Great improvement in the pulse and diminution of the cardiac dulness is shown in each case.

CASE 1.—The patient, a married woman aged forty-eight years, who had had rheumatic fever three times, was suffering from aortic stenosis, mitral regurgitation, and a dilated heart. She was despondent, was troubled with dyspnœa on

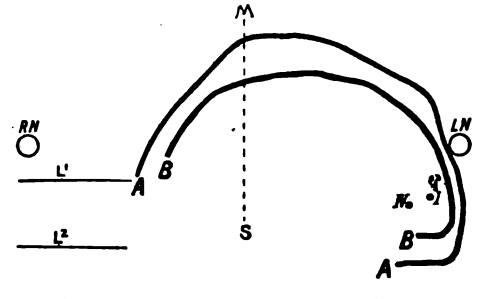
FIG. 1.



the least exertion, and subject to fainting fits; her lips were somewhat blue. She had some œdema of the lower extremities and a definite cloud of albumin in the urine. Her pulse was 72, regular in time, small in volume, and of *plus* tension. I give below sphygmographic tracings of her pulse before and after treatment (Nos. 9 and 10), and tracings of her cardiac dulness before and after treatment (Fig. 1, A, A, and B, B). At the end of ten weeks' treatment her colour was much improved; there was no œdema of the lower extremities and no albumin in the urine. She could walk up a fairly steep hill with comfort and was more cheerful. She had taken no drugs and was not kept in bed for a single day. It will be seen by comparing the tracings of her cardiac dulness (Fig. 1, A, A, and B, B) that it was considerably diminished at the end of the treatment, and by comparing the two sphygmographic tracings (Nos. 9 and 10) the great improvement in her pulse is made evident.

CASE 2.—This patient was a single man aged thirty-six years. He was temperate. He had had influenza three times, the last attack being four months before

FIG. 2.



L¹ and L², Height of liver dulness before and after treatment.

I saw him. Since this last attack he had done no work and had been under medical treatment, suffering from weakness, loss of appetite, insomnia, extrem nervousness,

[1] The Schott Method of the Treatment of Chronic Heart Disease. By Dr. Bezly Thorne. THE LANCET, May 5th, 1894.—Remarks on the Nauheim (Schott) Treatment of Heart Disease. By Dr. R. Saundby. Brit. Med. Jour., Nov. 2nd, 1895.

[2] THE LANCET, Nov. 24th, 1894.

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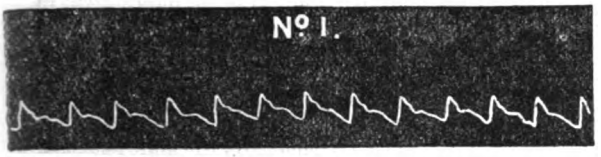
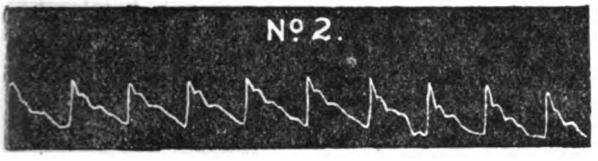
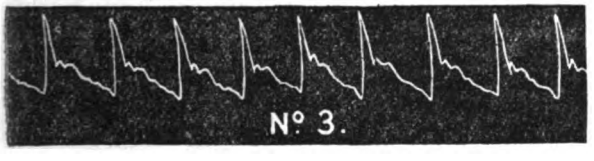


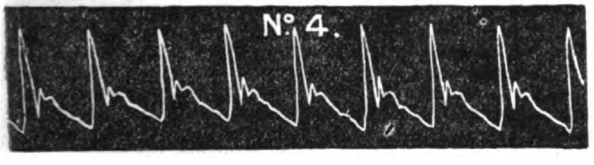
Before bath.



After bath.

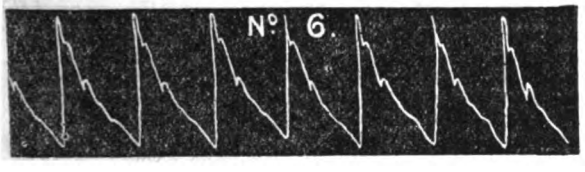


Before bath.

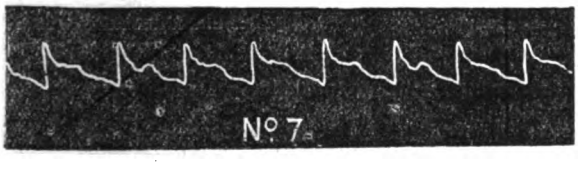


After bath.

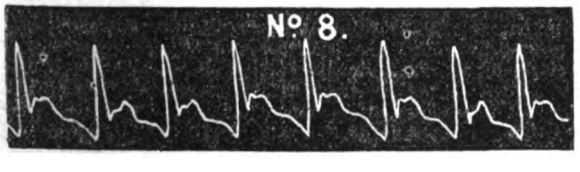
Before exercises.



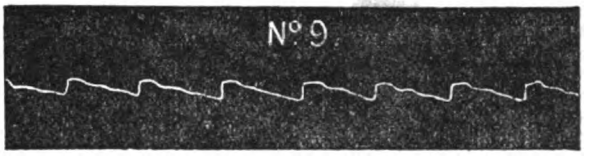
After exercises.



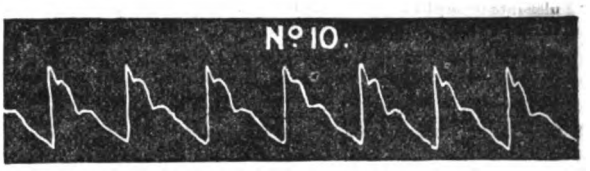
Before exercises.



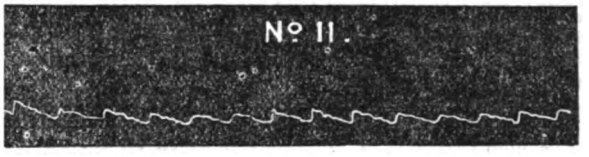
After exercises.



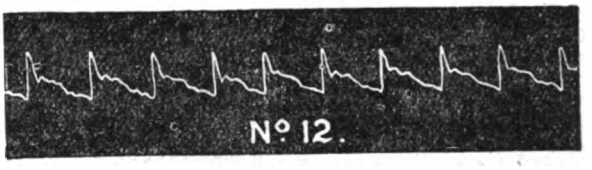
Case 1 before treatment.



Case 1 after treatment.



Case 2 before treatment.

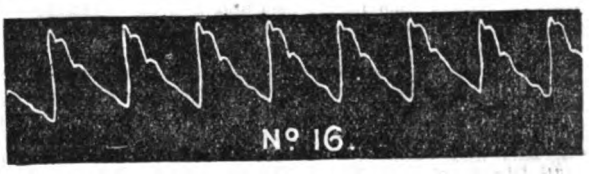


Case 2 after treatment.

Case 3 before treatment.

Case 3 after treatment.

Case 4 before treatment.



Case 4 after treatment.

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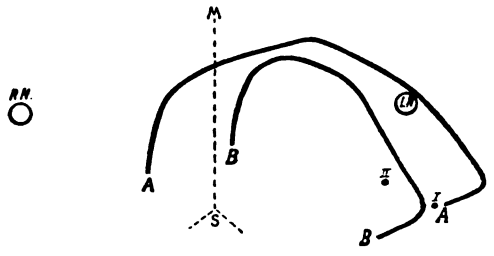
palpitation, occasional dyspnœa, and tremors. When first seen he looked ill; his hands and tongue were tremulous; his pulse, as may be seen (Tracing No. 11), was rapid, 132 per minute, very small, fairly regular in time, and of *plus* tension; his heart was dilated (Fig. 2, A, A), and his liver was enlarged. All his other organs were apparently healthy; there was no albumin in the urine. The reflexes were increased. I show below the very marked effect of the first bath upon the frequency of his pulse during five minutes' immersion:—

Pulse-rate	before bath (previously to undressing)...	100 per minute.
,,	after 1 minute in the bath	88 ,, ,,
,,	,, 2 minutes ,, ,, ,, ...	84 ,, ,,
,,	,, 3 ,, ,, ,, ,, ...	80 ,, ,,
,,	,, 4 ,, ,, ,, ,, ...	84 ,, ,,
,,	,, 5 ,, ,, ,, ,, ...	76 ,, ,,
,,	after dressing	80 ,, ,,

This patient was under treatment for four weeks only, when he was obliged to return to his work. At the end of his treatment he slept and ate well, had no tremors, no palpitation or dyspnœa, and felt much better and strong enough for work. His average pulse-rate was 80 per minute, and from the sphygmographic tracing (No. 12) it will be seen that his pulse was of much larger volume and more natural tension than before treatment. The tracings of his cardiac dulness (Fig. 2, A, A, and B, B) show the marked diminution after treatment.

CASE 3.—The patient was a young man aged twenty-three years. He had had rheumatic fever about two months before I saw him, having been confined to his bed for six weeks, since when he had not been strong enough to do his work. He had had palpitation frequently accompanied by precordial pain, and shortness of breath on slight exertion; at times he had pain in the knees, elbows, and shoulders. When I first saw him he looked ill, was anæmic, and complained of pains in the knees, which were, however, neither swollen nor hot. His temperature was normal. His pulse was 100, of poor volume, and *plus* tension, being regular in time and volume (No. 13). The heart's apex-beat was forcible and diffuse, and a definite presystolic thrill could be felt over it. A very marked presystolic murmur was heard at the apex and over a small area round it; no other murmur could be made out. His cardiac dulness, taken by ausculto-percussion, was much increased. (Fig. 3, A, A) All the other organs were apparently healthy. The urine contained no albumin. After four weeks' treatment by baths, exercises, and internal administration of the "Barium" water he looked practically well; his

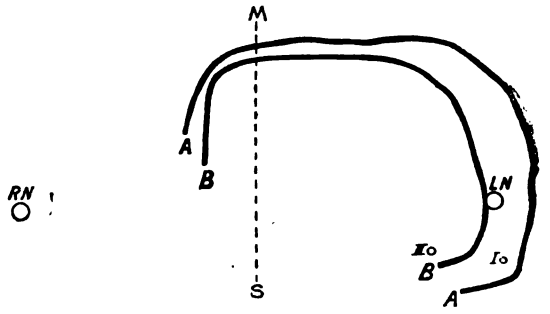
FIG. 3.



colour was much improved, he could walk uphill without discomfort or difficulty, he did not suffer from palpitation and his rheumatic pains had left him. His pulse, as will be seen by comparing tracings (Nos. 13 and 14), was of much better volume and of more normal tension, and its rate averaged 80 per minute. His cardiac dulness was much smaller. (Fig. 3, B, B) (I may here mention incidentally that the waters of Llangammarch Wells are extremely useful in the treatment of chronic rheumatism.) A month after he left Llangammarch he wrote to tell me that he was still improving, a common experience of many patients for some time after cessation of treatment.

CASE 4.—This patient was a man aged sixty-nine years. He had always been abstemious and was not an excessive smoker. He gave no history of any serious illness except an attack of influenza two years previously to my seeing him. Since that time he had had frequent attacks of palpitation and breathlessness, accompanied by a very intermittent pulse. (Tracing No. 15.) He also suffered from insomnia caused by cardiac distress. He had been treated with digitalis and other cardiac tonics on and off for two years, during the whole of which time he had kept to his work. When I saw him his pulse was small, intermittent in volume and time, and of *plus* tension (Tracing No. 15); his vessels felt healthy. His heart was dilated (Fig. 4, A, A); the apex-beat was only just perceptible to the touch, and his heart sounds, especially the first, were almost inaudible; no cardiac murmur was heard. All the other organs were apparently healthy. After his first exercises his pulse was quite regular (tracing No. 6) and remained so, with only occasional exception, during the course of treatment. After four weeks' treatment his condition was as follows. He felt much better and slept well; his pulse was regular in time and volume, and of much better volume and more normal tension than before treatment (Tracing 16). His cardiac dulness was a good deal smaller (Fig. 4, B, B). I heard from this patient

FIG. 4.



a month after he left Llangammarch to the effect that his improved condition was still maintained.

I could record many other cases illustrating the value of this treatment, but I have chosen the above four as representing different classes of cardiac disease. The two patients in whose cases influenza seemed responsible for the cardiac mischief had little in common, differing greatly in age and general characteristics. In conclusion, I would say that the treatment in question has shown itself to be of great value in many forms of cardiac disease, and that I have found it to answer well in several cases where drugs had been tried with no very satisfactory result. I would further express the opinion that there is no necessity for persons desirous of undergoing this treatment to go to Nauheim, for to my knowledge it has been successfully carried out in many places in this country, notably in London, Buxton, Birmingham, Llangammarch, and Leamington.

Inverness-terrace, W.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

A clinical meeting of this society was held on Tuesday, Dec. 17th, 1895, Dr. Adolph Bronner, President, in the chair. Dr. Crawford gave a microscopical demonstration. Dr. Major showed the following cases: 1. Patient with Tumour of Brain—a man with right hemiplegia and partial motor aphasia. There was Jacksonian epilepsy, affecting the leg and arm, headache, vomiting, and double optic neuritis. The diagnosis was a subcortical tumour in the left cerebral hemisphere. 2. A woman with Floating Kidney. 3. A man suffering from Locomotor Ataxy. The lightning pains from which the patient suffered were much relieved by Blondel's method of treatment, which consists in tying the patient's knees as near his chin as possible for five minutes daily. Dr. H. J. Campbell showed: (1) A man suffering from Progressive Muscular Atrophy, who was much improved in his power of walking by subcutaneous injections of $\frac{1}{100}$ to $\frac{1}{75}$ gr. of nitrate of strychnine daily; (2) a child with an Abdominal Tumour, probably sarcomatous in nature; and (3) a man with Aneurysm of the Aorta. Dr. Rabagliati described a case in which there had been unusual complications met with during Ovariotomy. The bladder was found to be drawn up in front of the tumour. Dr. Althorp showed a girl with a Recurring Growth on the Chin. Microscopically the growth was an epithelioma. Mr. E. G. Firth showed a child with Congenital Absence of Radius on each side. Dr. A. Bronner showed a series of cases illustrating the Treatment of Cataract; also a case of Traumatic Conjunctivitis treated by Hot Fomentations.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF SUPRA-PUBIC PROSTATECTOMY (McGILL'S OPERATION), ILLUSTRATING A METHOD OF ARREST OF HÆMORRHAGE BY PACKING THE BLADDER WITH A ROLL OF GAUZE.

By H. LITTLEWOOD, F.R.C.S. ENG.,
SENIOR ASSISTANT SURGEON TO THE LEEDS GENERAL INFIRMARY.

A MAN aged sixty-nine was admitted to the Leeds General Infirmary on Aug. 19th, 1895, with retention of urine due to prostatic enlargement. He was a pale, feeble old man, suffering from a good deal of pain in the vesical region and perinæum. This was somewhat relieved by a catheter but the passage of the instrument caused great pain. The urine drawn off was foul, alkaline, and contained some pus and blood. On rectal examination there was found to be marked enlargement of the prostate. During the past two years he had been troubled with frequency of micturition and occasional attacks of retention. A catheter had relieved the retention, and at times he had passed one for himself, whenever he felt that he required it. The present attack commenced on Aug. 16th, when he had to micturate every ten or fifteen minutes, only passing small quantities of urine. On the 17th a catheter was passed with some difficulty, and the bladder was relieved in this way until his admission to the Leeds General Infirmary. On the 21st his condition was only slightly improving, the retention being absolute. The urine had slightly improved. On the 22nd the patient was put under chloroform. The bladder was opened in the supra-pubic region and fixed to the abdominal walls with some silk sutures. On introducing the finger there was found to be a large intra-vesical projection of the prostate, chiefly in the situation of the so-called middle lobe. The mucous membrane to one side of the middle line was divided with a long pair of pointed scissors in the vertical direction for about an inch, then with the forefinger three masses of prostate were enucleated; these collectively weighed nine drachms. There was a good deal of bleeding. The bladder was well washed out with some hot boracic acid solution, but this did not stop the bleeding, so one end of a long roll of cyanide gauze well sprinkled with iodoform was packed down to the prostate; the other end of this protruded through the vesical opening for about one inch and a half. The gauze practically filled the bladder and at once arrested the hæmorrhage; it also acted as a drain for the urine. The upper and lower parts of the wound were now sutured with silkworm gut. The patient had a good night after the operation, and a fair quantity of urine drained away by the gauze. This latter was removed at the end of thirty-six hours and was found to be thoroughly soaked with urine; there were some clots in the part which had been in contact with the torn prostate. No bleeding occurred after the removal of the gauze, and it was found to have soaked up all the urine in the bladder. A large drainage-tube was inserted, which was removed on the 25th. On the 26th he got up for one hour. On the 30th the stitches were removed from the bladder. He now got up every day, and on Sept. 3rd was up for six hours. All the urine was coming by the wound; this was granulating well, and the urine was quite clear. On the night of Sept. 8th he passed some urine per urethram. On the 10th he passed nearly all the urine the right way, and on the morning of the 11th the supra-pubic wound appeared to be quite healed. He went home on the 14th. On Nov. 8th the patient was quite comfortable, had gained weight, and was passing urine every three or four hours during the day and getting up once and sometimes twice at night.

Remarks.—After removing large pieces of prostate the rapid arrest of hæmorrhage becomes an important question in a certain number of cases. I cannot help thinking that the method adopted in this case may prove of equal value in those of a similar nature. In addition to the arrest of hæmorrhage the roll of gauze acted as an admirable drain, leaving no urine in the bladder for decomposition, and in this way must have been a factor in clearing up the cystitis. I have to thank Mr. W. E. Maw, the dresser in charge of the case, for the above notes.

Leeds.

HYDATIDS OF THE HEART.

By W. H. E. KNAGGS, M.D. EDIN.,
SURGEON, SS. "DUNOTTAR CASTLE."

THE following case seems to me to be of considerable interest. A man on board a South African liner was sitting in his cabin on the evening of Oct. 20th, smoking and talking to some of his companions, when he suddenly fell over on his back. I was called and saw him almost immediately. I found him in a state of profound syncope, from which I was unable to rouse him. He died within a minute of the seizure. I was unable to get any clue as to the cause of death, so I made a post-mortem examination. The abdominal and thoracic organs were found to be all healthy, with the exception of the heart, which was greatly enlarged and had a mass of hydatid cysts embedded in the wall of the left ventricle; the typical hooklets were found in the fluid from the cysts. There was no communication with the ventricular cavity. The brain was not examined. In spite of careful inquiries I was unable to discover that the deceased had complained of any symptoms referable to impaired heart's action. He had always enjoyed excellent health. I may mention that he had never been in Australia or New Zealand.

MODIFICATION OF HÆMORRHAGIC SMALL-POX.

By FRANK ROBINSON, M.D., CH.B. VICT.,
RESIDENT MEDICAL OFFICER, CITY HOSPITAL, PARK-HILL, LIVERPOOL.

I BELIEVE it is a well-established fact that an attack of small-pox, whether discrete or confluent, may be arrested at any stage, chiefly, though not exclusively, in the vaccinated. I can find no reference, however, to this modification occurring in hæmorrhagic cases, but the possibility has been suggested to me by a case under my care in the Bradford Small-pox Hospital in January, 1894. The patient was a woman aged thirty-four years, with two very faint marks of primary vaccination one-third of a square inch in total area. She was six months pregnant. She said that on Jan. 2nd she caught cold and had pain in the back, but had quite recovered by Jan. 8th, when her gums began to bleed and she also noticed a rash. When admitted on Jan. 10th the patient was very prostrate; the face was dusky, with black rings round the eyes; the pulse was 108, though the temperature was but slightly elevated. A scanty variola eruption was present on the face, limbs, and back, partly papular and partly showing the crusts of dried vesicles; into some spots there were hæmorrhages. On the legs, especially the shins, were numerous petechiæ, and on the abdomen was a smaller number of petechiæ with a few small ecchymoses. There was also constant oozing from the gums round the teeth. For several days free stimulation was required; after this improvement was rapid. In two weeks the hæmorrhage from the mouth had ceased, and a week later the subcutaneous hæmorrhages had disappeared. The pregnancy was uninterrupted, and I learned that the patient was confined without post-partum hæmorrhage. Her menstrual history and that of previous labours are normal, and she never suffered from any form of hæmorrhage before the attack of small-pox. The diagnosis of small pox was readily made from the nature and distribution of the eruption together with the extreme prostration, and was strengthened by the fact of a badly-vaccinated pregnant woman remaining for a month in a small-pox ward without harm resulting. That the subcutaneous hæmorrhages were not prodromal is certain, I think, judging from their dark-blue colour and their long duration, and certainly the hæmorrhage from the gums cannot be assigned to that class. Subcutaneous hæmorrhages are not unfrequently observed in the course of a normal case, but they occur later, and I think are not seen quite apart from the eruption. From the degree of prostration, the nature and duration of the hæmorrhages, and the

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character of the rash, I am inclined to believe that the case was one of abortive hæmorrhagic small-pox, the modification being due possibly to the primary vaccination. I shall be glad to know whether this condition is recognised, and if similar cases are recorded.

Liverpool.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

SEAMEN'S HOSPITAL, GREENWICH.

TWO CASES OF HEPATIC ABSCESS; OPERATION; RECOVERY.

(Under the care of Dr. J. ANDERSON and Mr. W. JOHNSON SMITH.)

THESE cases are examples of some of the methods of treating hepatic abscess at the present day. The larger number of cases of this disease are met with at hospitals such as the Seamen's, which collect patients chiefly from foreign parts. Sometimes, however, a case of acute abscess with dysentery may be admitted into a general hospital in the summer time, although the patient has never visited the tropics. Two methods of treatment are shown, both of which proved successful: (1) free incision in Case 2, where the structures overlying the liver were adherent from extension of the inflammation to the abdominal parietes; and (2) operation in two stages across the pleural cavity in Case 1—viz., resection of rib and suture of the healthy layers of the pleura to each other in the first stage, and then, three days later, incision through the diaphragm into the abscess, with drainage. For the notes of these two cases we are indebted to Dr. C. W. Windsor.

CASE 1.—A native of Zanzibar aged twenty-seven years was admitted to the Seamen's Hospital, Greenwich, on Aug. 17th, 1895. He complained of pain in the right side of the abdomen and chest, from which he had suffered for one month. Four months before admission he had an attack of diarrhœa lasting one month, with very frequent small stools containing a good deal of mucus, but no blood. For three weeks previously to admission he had a similar attack of diarrhœa and tenesmus, but no blood was passed. He had never had malaria. He had not suffered from vomiting or jaundice, but he had lost flesh during the previous few months. On admission he was found to be a fairly nourished man suffering from pain in the right side. The abdomen was not distended; there was no marked prominence, œdema, or obliteration of the intercostal spaces. The liver dulness began at the sixth rib in the nipple line, at the eighth rib in the mid-axillary line, and at the ninth rib in the scapular line; it was continued downwards two inches below the costal margin. The edge of the liver could be felt mid-way between the costal margin and the umbilicus. Considerable tenderness was felt over the hepatic area, especially just below the ribs. The spleen was enlarged; its edge could be felt below the border of the ribs. Nothing else abnormal was detected in the abdomen. The patient had slight diarrhœa; the bowels were opened four times in the first twenty-four hours, the stools being clay-coloured, but without blood or mucus. The urine was of specific gravity 1026 and contained no albumin or sugar, but a quantity of bile pigment. The temperature was high and remittent, reaching 103° F. The lungs were clear, except at the right base behind, where there was some impairment of resonance; slight feebleness of the breath sounds was noted, and vocal resonance and vocal fremitus were diminished. No adventitious sounds were audible. There was no difference in the measurements of the two sides of the chest. The heart was normal. No nervous symptoms were observed. Two days after admission an exploring needle was inserted into the liver directly backwards through the eighth intercostal space; a small quantity of dark-red, rather offensive pus was withdrawn, showing under the microscope abundant blood and pus cells, degenerated liver tissue, and numerous streptococci, but no amœba coli was seen. In a few days the urine became free from bile, and the stools regained their normal colour. Eleven days after admission Mr. Johnson Smith resected two inches of the eighth rib immediately in front of the anterior axillary line. The layers of the pleura were not adherent, and as the pus showed the presence of septic organisms, in addition to being offensive, these were stitched together to shut off the pleural cavity. Three days later an incision was made into the liver, and a considerable quantity (about one pint) of blood-stained pus was evacuated; it had a slightly fæcal odour and was streaked with blood and bile. Repeated examinations failed to reveal any amœbæ. The abscess cavity was a large one and had a ragged wall. The cavity was washed out once daily with a 1 in 60 carbolic solution and very rapidly closed. In two days the temperature became normal. A fortnight after the operation an alarming gush of blood from the interior of the cavity occurred while the wound was being syringed, but the hæmorrhage was soon controlled by plugging with gauze. With this exception convalescence was uninterrupted, and the patient was discharged recovered.

CASE 2.—A man aged thirty-four was admitted to the Seamen's Hospital, Greenwich, on Oct. 21st, 1895. There was a slight family history of phthisis. He had had malaria and syphilis, but otherwise he had always been strong and healthy. There was a very inconclusive history of diarrhœa. The patient first noticed pain in his stomach one month before admission, while sailing home from Odessa; the pain was of a sharp, shooting character, radiating between the shoulders, and was so severe as to prevent him from sleeping at night. He first observed a swelling over the stomach seventeen days before admission, and it had slowly increased in size. No history of colic or of jaundice was elicited. The bowels were very constipated. He had lost 2 st. in weight during the previous two months. On his admission the abdomen was found to be rather distended, particularly at its upper part. There was no œdema, and no enlarged veins were visible. There was a globular swelling lying very nearly in the middle line, immediately below the ensiform cartilage, its lower border being at the level of the umbilicus. Laterally the swelling approached close to the costal margin on each side, but especially to the right; but even here a finger could be laid between the margin of the swelling and the edge of the ribs when a deep inspiration was taken. The swelling measured eleven inches and a half transversely and six inches and a half from above downwards. It did not move perceptibly on respiration. It was rather fixed, and its right border either was connected with, or was in very close proximity to, the liver. There was no connexion with the right kidney. In consistence the mass was tense and elastic, fluctuation was obtainable, and the percussion note was dull. There was no fluid thrill, and there was no reddening of the skin. The liver dulness began at the sixth rib in the nipple line, and at the eighth rib in the mid-axillary line, and was continuous with that obtained over the swelling. The edge could not be felt in the axillary region, while anteriorly to this the swelling interfered with accurate palpation. There was no enlargement of the spleen. The bowels were constipated. The urine, which was normal in quantity and of specific gravity 1008, contained no albumin or sugar and no pus or blood. The patient's appetite was fair, but he was slightly emaciated. In regard to the lungs nothing abnormal could be detected save a little emphysema. As for the heart the area of dulness was obliterated, the apex was normally placed, and the sounds were healthy. The patient had an anæmic, sallow complexion and an anxious expression. There was no œdema, nor were there any obvious nervous symptoms. Three days after admission Mr. Johnson Smith incised the abdominal swelling, and a large quantity of pus escaped; the pus was of a dark-red colour, containing abundant pus and blood cells, but no amœbæ were found. The temperature, which had previously been slightly raised, fell to normal after the operation, and the patient made an uninterrupted recovery.

BRANCH SEAMEN'S HOSPITAL, ROYAL ALBERT DOCK.

TWO CASES OF HEPATIC ABSCESS; OPERATION; RECOVERY.

(Under the care of Dr. PATRICK MANSON and Mr. W. JOHNSON SMITH.)

WE bring before our readers in the account of two cases treated at the Seamen's Hospital two methods of operation for hepatic abscess. The following cases present two other

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methods, which were also followed by recovery of the patients. The first of these patients was operated on by Dr. Manson's method, the insertion of a drainage-tube through a large-sized cannula after tapping the abscess. In the second case peritoneal adhesions did not cover the whole surface of the abscess, and the incision opened the peritoneal cavity in the lower part. Hence special precautions were required, which are described in the account of the case. For the notes of Case 1 we are indebted to Dr. J. Rust, senior resident medical officer.

CASE 1.—A man aged twenty-six years, a native of Bombay, was admitted to the hospital on April 29th, 1895. He had been ill for fifteen or sixteen days, suffering from diarrhœa, and the motions sometimes contained blood. He complained of pain in the right hypochondrium and in the right shoulder. After admission the bowels were opened three times in twelve hours; the motions were dysenteric. Amœbæ coli were present in the fæces. The liver was extremely tender on pressure on the epigastrium and also posteriorly, but the liver dulness was not increased in the epigastrium or right nipple line. Posteriorly, however, a dull percussion note was obtained from the angle of the right scapula downwards. Over the dull area the breath sounds were very distant, and vocal resonance was diminished. The spleen was not enlarged. The urine was normal. The other organs were likewise normal. An attack of bronchitis continued from May 2nd till the 10th. On that date there was a distinct bulging over the liver, this organ being enlarged in the epigastrium and extending two inches below the costal margin in the right nipple line. The patient had no rigors or night sweats. On the 13th an aspirating needle, introduced in the eighth interspace in the right anterior axillary line, withdrew one ounce of liver pus. This pus did not contain amœbæ. On the 16th part of the seventh right rib between the nipple and anterior axillary lines was excised. A trocar was pushed into the abscess, and a large drainage-tube was inserted into it. About eighteen ounces of liver pus escaped. On the 23rd there was considerable retention of pus; a longer drainage-tube was inserted. On June 1st there had been a slight rise of temperature during the previous two days. Amœbæ coli were found in the discharge from the liver. The dysentery continued. On the 25th the diarrhœa had ceased. On July 15th the discharge had gradually diminished in amount; it still contained amœbæ. The patient had gained flesh considerably. On Aug. 23rd the sinus was washed out with a solution of sulphate of quinine (1 in 1000). The sinus was four and a half inches long. On Sept. 10th the drainage-tube was removed, and the sinus was washed out with a solution of zinc chloride. On the 17th the opening had closed, and on the 20th the patient was well. He was transferred to the Seamen's Hospital, Greenwich, for a few days, and was discharged recovered from there on the 24th.

CASE 2 (under the care of Dr. Tom R. Taylor, whilst acting as visiting surgeon to the hospital in the autumn of 1895).—A native of Bombay was admitted to the hospital on Aug. 28th, 1895. He had been suffering from loss of flesh and general malaise for eight months. His illness began with pain in the sixth right interspace. There was no history of dysentery. Upon examination the chest was found to be normal. Liver dulness extended from the fifth rib in the middle line, the fifth rib in the axilla, and the eighth rib behind down to the costal margin. Towards the middle line it extended down to a rounded tumour situated in the epigastrium. The swelling reached down to about two inches above the umbilicus and was so situated that two and a half inches of its transverse diameter lay on the right and one and a half inches on the left of the middle line. It was elastic and painful on pressure, and the skin over it was thin and discoloured. On Aug. 29th the following operation was performed. A vertical incision was made over the centre of the tumour, which was exceedingly tough and made up of indurated and infiltrated muscular tissue. The lower part of the wound opened up the peritoneal cavity. This opening was carefully packed with a carbolic compress. Upon digital examination a sinus was found reaching down into a large cavity in the liver. Upon dilatation there was a gush of grumous pus. On the left side the liver was firmly adherent, but it was found necessary to attach the right side of the opening into the liver to the edge of the parietal wound by a suture. The pus evacuated amounted to about twenty ounces and came away very freely. After evacuation the cavity was wiped out with a carbolic plug on a long sponge-holder. No washing out was attempted. Eight inches of a large sized drainage-tube were then inserted, and the opening was carefully packed round. Sutures were inserted into the peritoneum, and the lower part of the wound was closed. The upper part through the swelling looked so unhealthy that it was considered advisable to pack it with iodoform gauze. On the 30th the temperature rose to 99·8° F., but fell again after dressing. It rose again on the 31st, but from that date continued normal. On Sept. 13th there was no discharge, and the drainage-tube was removed. This was followed by no rise of temperature. On the 21st the patient, who had been steadily gaining flesh after the operation, was transferred as a convalescent to Greenwich. The wound had almost, but not quite, granulated over. He was discharged recovered from Greenwich on Oct. 2nd.

BRISTOL ROYAL INFIRMARY.

RESECTION OF INTESTINE FOR TUMOUR WITH INTUSSUSCEPTION BY MEANS OF MURPHY'S BUTTON.

(Under the care of Mr. J. GREIG SMITH.)

SIMPLE tumours of the bowel very rarely cause intestinal obstruction, either as a primary result of their presence or secondarily to an induced intussusception. "Tubular adenomata and papillomata are the most common simple tumours of the intestines, but if we exclude those growing in the rectum they are extremely rare. Fibromata, springing from the submucous tissue, fibro-myomata, lipomata, and angeiomata have also been described, but they are merely pathological curiosities."[1] This is one of those cases of resection in which the rapidity of operation bears such an important influence on the result, and there can be little doubt that the use of the Murphy button helped greatly in the success, the account of which we are pleased to place before our readers. The case is worthy of record from the interest of the pathological condition and the gratifying progress of the patient after operation. For the notes of the case we are indebted to Mr. T. Carwardine, house surgeon.

An emaciated woman aged thirty-one years was admitted to the Bristol Royal Infirmary on Oct. 30th last under the care of Mr. Greig Smith. She complained of sickness and constipation, together with severe griping pains in the abdomen. She was very collapsed; the eyes were dull, the tongue was dry and furred, and she lay on her side vomiting repeatedly, whilst every few minutes she moaned on account of abdominal pain. The abdomen was tense, distended, and tympanitic, with prominent umbilicus. Palpation brought on visible peristalsis accompanied by pain, large distended coils of gut appearing transversely across the lower part of the abdomen. The gurgling peristaltic wave passed from left to right, appearing to cease at the right iliac fossa, where a tender intra-abdominal mass could be felt. Constipation was absolute and enemata were of no avail. She passed no blood or mucus per anum, and her urine, though small in quantity, was normal in reaction. She stated that two years previously she had had severe bearing-down pains in the lower part of the abdomen, which usually began in the night, lasted for about twenty-four hours, and recurred about once a fortnight, each attack being associated with sickness. Later the attacks became more frequent and severe, and during last midsummer she had placed herself under medical care for some ten weeks, from which she derived temporary benefit. At the end of September she became worse; the pains increased in severity and recurred every two or three minutes, and she needed an enema every day. The pains were always accompanied by nausea and usually by vomiting. There was nothing striking in her family or previous history, except that as a girl she was subject to constipation and often went a week without defecating. On admission to the infirmary, brandy and gastric sedatives were given and the vomiting became less, but collapse increased alarmingly for a time, and it was feared that she would not be able to undergo an operation. On Nov. 1st she had rallied somewhat, and the operation was performed under forty minutes' anæsthesia with chloroform. The abdominal cavity was entered by an incision on the right side, starting above the anterior superior iliac spine and following the direction of the fibres of the external oblique muscle upwards and backwards for three inches. An intussusception of the small into the large bowel was at once discovered. The intussusception formed a mass about as large as the

[1] Erichsen: Science and Art of Surgery, vol. ii., 1895, p. 904.

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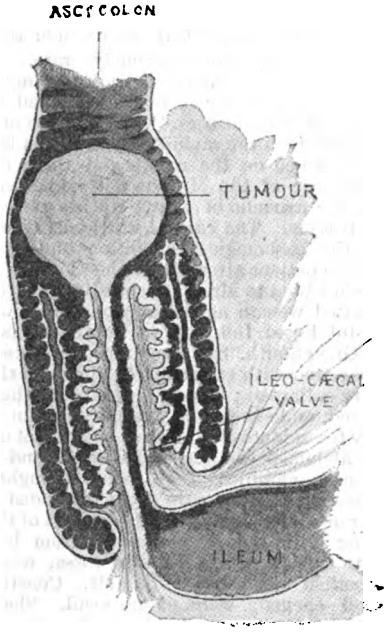
two clenched fists placed end to end, and was firmly fixed to the posterior abdominal wall by the mesentery of the ascending colon. Reduction was not difficult when a start had been made, and an unknown but considerable length of small bowel was pulled out and set free in the cavity. Finally, a little effort was wanted to pull what seemed to be a lump through the ileo-cæcal valve. This could be delivered through the parietal wound and on examination proved to be another intussusception at the end of the ileum with what seemed to be a tumour at its apex. This intussusception could not be reduced, and as it seemed necessary to resect the tumour no prolonged efforts were made to reduce it. The receiving bowel, therefore, was incised longitudinally, and the tumour was pulled through the incision and removed with scissors. The parts removed were practically the apex of the intussusception and involved about three inches of the length of the bowel in its whole circumference. The growth was as large as a hen's egg, was much congested on its free surface, and was white and œdematous on section. The invaginated bowel was now easily drawn out; the actual seat of resection was found to be only nine inches above the seat of incision in the bowel, and the situation of the growth in the ileum was about eighteen inches distant from the ileo-cæcal junction. The primary incision was closed by a



double continuous Dupuytren's suture. The divided ends of intestine left by the removal of the growth were joined by means of a large Murphy's button. The large size of button was used, even though it was in the small intestine, because the gut was so distended and hypertrophied that the small button would have been inefficient, and also because the ileo-cæcal valve was already so much dilated that it was not likely to prevent its subsequent passage. The operation was concluded by cleansing and returning the gut and suturing the parietal wound in the ordinary way. As regards the subsequent progress of the patient, no vomiting occurred till 8 P.M., when it persisted till the early morning. Nutrient enemata were given. She had no sleep during the night owing to abdominal pain, which was only partially relieved by two hypodermic injections of morphine. On Nov. 2nd the sickness was less, though she vomited several times during the night. There was an occasional intestinal cramp, which ceased towards the right iliac region. On the 3rd the patient had occasional hiccough, but was much more comfortable, having passed flatus freely. The abdomen was somewhat distended, but not tense. Painful peristalsis was still visible. The temperature had now reached its highest point—viz., 101° F. On the 4th vomiting had ceased, much flatus had been passed, and the abdomen was no longer distended. She was given sulphate of magnesia in drachm doses twice daily to keep the bowels acting. She continued to make progress. On the 7th the bowels were opened, and she had a good appetite. She got up on the 25th for two hours. On the 30th she passed four motions. With the last of these she had very acute pain in the "lower part of her bowels" for about five minutes and perspired profusely. The Murphy's button was then expelled with a little blood and a loose motion. The button was fully closed, blackened, and surrounded by unaltered silk thread, but there was no intestinal slough. The patient was discharged recovered on Dec. 2nd, a month after the operation.

Microscopically the tumour presented the characters of a fibro-myxoma with numerous well-formed vessels traversing its substance.

Medical Societies.

EPIDEMIOLOGICAL SOCIETY.

Diphtheria in Older and Newer Bristol.

A MEETING of this society was held on Dec. 13th, Mr. SHIRLEY F. MURPHY, President, being in the chair.

Dr. WALTER DOWSON read a paper on Diphtheria in Older and Newer Bristol, the first comprising the registration sub-districts of St. Mary Redcliffe, the Castle precincts, St. Paul's, St. James's, and St. Augustine's, being the Bristol of the Charter of Henry VIII.; and newer Bristol, comprising those of Clifton, Bedminster, Westbury, Ashley, and St. Philip's, added to the borough in 1835. In 1891 the population of the whole was 221,000, and of the two sections 55,000 and 166,000 respectively. To these numbers might be added a population of over 60,000 in districts such as Stapleton, Horfield, and St. George's, outside the city boundaries, but in brick and mortar continuity with Newer Bristol, with which they had many conditions in common, and which, forming an organic whole, practically made up a Greater Bristol, with 280,000 to 300,000 inhabitants. During the five years 1890–94 the cases of diphtheria notified were 501, with 162 deaths; none were removed to hospital, nor was there any disinfection of the excreta. The suggestions of Dr. Newsholme and Dr. Sidney Davies at the Newcastle meeting of the British Medical Association in 1893 as to the influence of the ventilation or non-ventilation of sewers by street grids, or of the defective construction of sewers and drains in newly-built districts, had led Dr. Dowson to turn his attention to the possible influence of those factors in the causation of diphtheria in Bristol, as well as to the agency of personal contagion, as in schools, to which Dr. Newsholme and Mr. Shirley Murphy attached considerable importance. The sewers of Bristol were tide-locked twice in every twenty-four hours, the outfalls being protected by tidal valves. Storm waters were admitted by road gulleys, but there was absolutely no provision for ventilation, and the manholes were air-tight. In by far the greatest number of the new streets the drains were laid under the houses without concrete or disconnexion from the sewer, and the hopper closets in the backyards were without flushing apparatus, so that, with the very defective construction of many of the drains, the escape of sewer-gas in and around the dwellings was inevitable. The character of the drainwork might be judged from the fact that during these five years the drains of over 9000, or one-fourth, of the 37,000 houses in Bristol had to be wholly or partly reconstructed, and three-fourths of these were in the newer districts. He might call these 9000 "sewer air," and the other 28,000 "non-sewer air" houses. The 501 cases of diphtheria occurred in 437 houses, of which 125, or 28·6 per cent., presented sanitary defects, and 71 were "sewer air" houses. Thus the percentage of "sewer air" houses attacked was 8, and of "non-sewer air" houses 13 (!). In times of heavy rainfall the low-lying districts were for many consecutive days flooded to a depth of several feet, and the sewage, forcing w.c.'s, traps, and gulleys, rose into the houses, leaving when it subsided a deposit of foul mud. This happened in 1889, and again in 1893, when it was followed by a sudden outburst of diphtheria. Thus, in the latter year 22 of the 27 cases occurring during the six weeks following the flood were in the districts affected; this was but natural, yet he did not think that on the whole these special outbreaks could be held to outweigh the absence of evidence of sewer air playing any appreciable part at other times and places. The districts of Newer Bristol in which

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the incidence of diphtheria was heaviest were those which were continuous with the most populous outlying rural districts, rural in name only, but really integral parts of Greater Bristol—districts where, since they had adopted notification, diphtheria was found to be very rife, and which did not possess means for disinfection or exercise any stringent sanitary administration.

BRITISH GYNÆCOLOGICAL SOCIETY.

Exhibition of Specimens.—Utero-ovarian Irritation as a Factor in the Causation of Rheumatoid Arthritis, and the Special Treatment necessitated thereby.

A MEETING of this society took place on Dec. 12th, 1895, Dr. CLEMENT GODSON, President, being in the chair.

Dr. SMYLY (Dublin) showed the following specimens:—(1) Pyosalpinx removed by Vaginal Colporrhaphy; (2) Three Myomatous Uteri removed per vaginam by Morcellement; and (3) Ectopic Gestation operated on at Term; all the patients recovered.—Dr. BANTOCK hoped that Dr. Smyly did not advocate colpotomy for all cases of pyosalpinx, for in many it would be almost impossible to get good results by that method. In support of this statement he related cases of pyosalpinx operated on by laparotomy, where the complications could not have been dealt with by colpotomy. With regard to the vaginal operation for fibroids he did not think it was so good as the abdominal. He considered it most important that the integrity of the pelvic floor should be preserved, even if the uterus were represented only by the cervix. Compared to this the prolongation of convalescence by one or two weeks was of little importance.—Dr. HEYWOOD SMITH thought they should keep an open mind on the subject of the relative merits of the vaginal and abdominal operations; the former were being done extensively on the Continent and in America, and the results were so far very good.—Dr. ROUTH considered that the proper treatment of adherent pyosalpinx was aspiration per vaginam and injection of iodine. Similarly, for fibroids, neither the uterus nor the ovaries should be removed, but the uterine arteries should be tied, as was done in America.—Dr. SMYLY, in reply, said he thought it was wrong to perform a new operation unless it seemed to be the best one for the patient, and this rule had guided him in all his cases. Many cases of pyosalpinx were rendered unsuitable for colpotomy by the fact that the uterus could not be pulled down, for this was an essential point in the performance of the operation. Briefly, the principal advantages of vaginal over abdominal operations were: firstly, the risk of hernia was obviated; secondly, convalescence was shorter; and thirdly, and chiefly, the shock of operation was much less, and the mortality was proportionately diminished.

Mr. W. ARMSTRONG, J.P., of Buxton, read a paper on Utero-Ovarian Irritation as a Factor in the Causation of Rheumatoid Arthritis, and the Special Treatment necessitated thereby.—The PRESIDENT thanked Mr. Armstrong in the name of the society for his valuable and interesting paper.—Dr. LEITH NAPIER said that Dr. Halliday Croom had pointed out some years ago the association of inherited rheumatism with a form of dysmenorrhœa which he was the first to designate as the rheumatic type. It was possible for rheumatism to remain long latent and to show itself when uterine disturbance occurred, as in a case he had seen where the patient developed an attack of acute rheumatism two weeks after her first confinement and again three weeks after the second confinement, whilst in the interval she remained free.—Dr. ELDER thought that Mr. Armstrong's interesting paper was not conclusive, because all the facts mentioned therein were consistent with the view that rheumatoid arthritis was neither the cause nor the effect of utero-ovarian disturbance, but that both were alike the effects of a common cause.—Dr. ROUTH observed that many years ago Mr. Druitt had read a paper before the Medical Society of London showing that many uterine troubles remained intractable until they were treated as of rheumatic origin.—Dr. FORTESCUE FOX said his experience agreed closely with that of Mr. Armstrong, and he had been led to very similar results; but he felt inclined, following Dr. W. M. Ord, to lay more stress on the causal influence of the nervous system, and he was glad to note that Mr. Armstrong gave considerable importance to remedies directed to that system. Other factors entered into the etiology of rheumatoid arthritis, of which perhaps the most important was climate. Inherited tuberculosis, and shock occurring at the menopause also played a part. He agreed with Mr. Armstrong that very hot baths were not so effectual as cooler ones.—Mr. ARMSTRONG briefly replied.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Medical Aid Societies.—Prevention of Phthisis.

A MEETING of this society was held on Dec. 18th, 1895, Dr. MUTCH, President, being in the chair.

Dr. COULBY called attention to the abuses of certain so-called Medical Aid Societies, and it was decided to discuss the subject at the next meeting of the society.

Dr. C. WILLS, medical officer of health of the Newark, Southwell, Worksop, and Mansfield district councils, read a paper on the Prevention of Phthisis. It was illustrated with fifty-five lantern slides, many of which were prepared for the occasion. The causes of phthisis assigned by eminent authorities on the subject, such as the late Dr. Parker, the late Sir G. Buchanan, Dr. Ogle, Dr. Sims Woodhead, Dr. Martin, Dr. Squire, Dr. Cornet, Professor Bang, and M. Nocard, were enumerated in their order; and it was pointed out that dusty air with damp subsoil appeared to be the great cause of phthisis in man and easily accounted for its presence in cows, which were often kept in foul, unventilated cowsheds, whence the disease was transferred to children. These causes explained infection carried by dusty air containing the bacillus in close, unventilated rooms and would account for the disease prevailing in those engaged in the dusty occupations of steel-grinding and pottery manufacture, and among Cornish miners, as well as its rarity among those engaged in occupations in pure air, on the sea or land, or living in mountainous districts, where there is comparatively little dust or stagnant subsoil water. Inheritance, as seen by the light of Koch's experiments with guinea-pigs and those of Professor Bang with the calves of tuberculous cows, as related to the Budapest Congress, appeared to mean inheritance of dusty homes, dusty clothing, infected handkerchiefs, dusty bedding, and infected mother's milk. The remarkable example of the Oldham Medical Society was fully quoted to indicate the lines upon which notification was desirable. The treatment of incipient cases in the mountain regions of Germany, Switzerland, and America was illustrated, and the results collected by Dr. Williams and Dr. Tonclear were shown on the screen. Illustrations of grates for ventilating and warming were exhibited, and the method of extracting foul air, introduced by Buchan of Glasgow, was shown. The better ventilation of factories, workshops, schools, and cowhouses was insisted on as being very important.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Pathology of Diphtheria.—Exhibition of Cases and Specimens.

A PATHOLOGICAL meeting of this society was held on Dec. 3rd, Mr. MAYO ROBSON being in the chair.

Dr. TREVELYAN read a paper on the Pathology of Diphtheria. It was chiefly based upon the minute morbid anatomy of a case of diphtheria and upon the examination of the diphtheria culture boxes under the scheme adopted by the Leeds Corporation at the instance of Dr. Spottiswoode Cameron. The case was of some interest, as death occurred from cardiac paralysis, and an intense degenerative myocarditis was found. There was evidence of a well-marked tubulo-glomerular nephritis, and during life albuminuria had been persistently present. The local diphtheritic lesion was first described, then the changes in the various organs and tissues were explained, and finally some points in the bacteriology. The question as to whether the serum could in any way be made responsible for some of the visceral lesions was discussed, the opinion being expressed that there was no evidence in support of that view. The bacillus itself as well as its staining and cultivation were briefly described. The question as to whether dahlia methyl-green produced a characteristic staining of the bacillus was discussed. The method of preserving cylinders of nutrient medium with growth on them in

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formol chambers was demonstrated. Finally the light that bacteriology had thrown on diphtheria was referred to. — Mr. HAROLD WAGER made some remarks on the structure of bacteria with reference to their recognition and morphological examination, and Dr. CAMPBELL, Dr. BARRS, and Mr. LITTLEWOOD joined in the discussion.— In reply, Dr. TREVELYAN said that he doubted whether much reliance could always be placed upon the mere morphological appearances. Only the material from doubtful cases was submitted to him for examination. He did not think that the serum could have any baneful effects. The absence of general symptoms in cases of membranous rhinitis due to the diphtheria bacillus was now beyond dispute.

Dr. TREVELYAN showed a series of coloured drawings illustrating the Minute Morbid Anatomy of Infantile Paralysis, and (for Mr. BOLLANS) selected microscopic sections from various Human Thyroid Glands.

Dr. HELLIER showed a Uterus removed by Vaginal Hysterectomy from a patient aged fifty-two years for malignant disease of the fundus. The diagnosis was made on clinical grounds, in spite of the fact that the microscopic examination of fragments removed by preliminary curetting had failed to give evidence of malignant disease. The growth was proved to be sarcomatous. The patient made a good recovery.— The PRESIDENT and Dr. BRAITHWAITE described cases illustrating the difficulty of diagnosing malignant disease of the womb from the microscopic examination of curettings.

Dr. HELLIER also showed a Multilocular Ovarian Cyst, which had contained fifteen pints of fluid, successfully removed from a patient aged fifty-seven years.

Dr. E. W. SELBY showed the Stomach from a patient on whom he had operated for perforating ulcer of that viscus. The patient was doing well, but a second ulcer perforated and led to death from peritonitis.

The PRESIDENT showed (1) a Villous Tumour of the Rectum removed by proctectomy; (2) a large Multilocular Ovarian Cyst; (3) a large Myoma removed by abdominal section, in connexion with which he called attention to the comparative frequency of trouble from myoma after the menopause, and said that the danger was by no means over when the menopause was passed; and (4) a Gall-bladder removed by cholecystectomy.

Mr. SECKER WALKER showed (1) a Sequestrum consisting of three semi-circular canals, the vestibule, and the greater part of the cochlea, which he had removed from the temporal bone of a patient after opening the mastoid for caries—the patient did well; (2) two specimens of Cholesteoma removed from the external auditory meatus; and (3) Cysticercus Cellulosæ, from the conjunctiva of a boy.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Exhibition of Specimens.

A MEETING of this society was held on Dec. 11th, 1895, Dr. H. R. HUTTON, President, being in the chair.

Mr. FRICKE showed the Rectum and Sigmoid Flexure removed from a man aged thirty-five years. The patient had been employed at out-door work up to the morning of his death. He began to vomit at breakfast, was taken to bed, and died about 2 P.M. During the previous year his abdomen had been noticed to grow very large. Post mortem the peritoneal cavity was found to be full of fæces mixed with exudation; the rectum was enormously distended, being at least five inches and a half in diameter, and ascended close to the middle line from the pelvis as far as the left dome of the diaphragm, displacing the heart upwards. At the lower part of the sigmoid flexure there was a perforation of the size of a shilling, with greatly thinned edges and without any signs of inflammation, through which fæces escaped into the peritoneal cavity. The contents of the intestines consisted of softish fæces of slightly greater consistence than cow's dung; there were no hard masses anywhere. There had never been any constipation. There was no trace of organic obstruction, the whole hand being easily passed through the anus into the rectum.

Mr. FRICKE also exhibited the Fractured Vault and Base of the Skull of an epileptic female patient aged thirty-six years. She was 16 st. in weight and 5 ft. 4 in. in height. She fell in a fit down three steps, each six inches high, on to the back of her head, and died immediately afterwards. A fracture was found to start from the upper part of the right lambdoid suture, going downwards and then forwards into the foramen magnum, leaving the latter at the right side of the basillar process and then extending forwards on the same side as far as the pituitary fossa; at this level the fracture went across to the left side through the pituitary fossa and ended in a slight fissure extending slightly backwards on the left side. The body of the sphenoid was completely broken through. Although the skull cap was much thickened, the right lower occipital fossa was very thin.

Mr. FRICKE then brought forward microscopical preparations of an Encapsuled Renal Tumour from a patient aged seventy-two years who had died from heart disease. The sections were diagnosed as angeio-sarcoma.

Dr. WILD showed a Heart of which the Myocardium presented numerous nodules of Cancer; the left ventricle was chiefly involved, and one papillary muscle was deeply infiltrated; the pericardium was only affected where a nodule in the heart muscle reached the surface. Microscopical preparations showed that the nodules had the structure of a squamous epithelioma; typical cell nests were numerous, and the new growth infiltrated the cardiac muscle. There were no cardiac symptoms during life. The specimen was obtained from a man aged forty-three years, who had had his tongue removed for epithelioma nearly four months before his death. Rapid recurrence took place in the cervical glands, which ulcerated deeply and involved the surrounding tissues. Death occurred from exhaustion consequent on septic absorption and inability to take food. The progress of the case was unusually rapid, for, so far as could be ascertained, less than five months had elapsed between the first appearance of disease in the tongue and the occurrence of death. The lungs also presented secondary growths of a similar character to those found in the heart.

Mr. RAY brought forward for Dr. DIXON MANN a specimen, with microscopic sections, of Colloid Cancer of the Lower End of the Œsophagus. Secondary growths were found on the left third rib and in a submaxillary lymphatic gland on the left side. There was also a fibroid stricture of the pylorus.

The following card specimens were exhibited:—

Dr. KELYNACK: Chronic Ulcer of the Stomach from an Elderly Female.

Mr. STOCKS: Large Sarcomatous Growth below the Lower Mandible of a Fowl.

PLYMOUTH MEDICAL SOCIETY.

Exhibition of Case and Specimens.

A CLINICAL meeting of this society was held on Dec. 18th.

Mr. WEBBER showed a male patient aged sixteen with an Impetiginous (?) Eruption on the back of the left wrist noticed three weeks previously. There was no history of local infection; improvement followed the use of a dilute nitrate of mercury and resorcin ointment.

Mr. FOX showed specimens from a case of Multiple Sarcoma. The patient, a girl sixteen years of age, suddenly became diplopic in May, 1895, and in June developed "lumps" in both mammæ, pains across the shoulders and in the right knee, and her legs became weaker until one morning she was unable to stand. There was a history of fright, but no previous illness. Ultimately she was unable to move her legs, though they responded to reflex stimulation; sensation was impaired, and there was incontinence of urine. Both breasts were about equally enlarged, extremely hard and nodular; the lymph glands of the axillæ and upper cervical regions were enlarged, and in the epigastrium was a button-like nodule adherent to the thinned red skin above it. In August an elastic swelling appeared above the left zygoma, and the urine was found to be alkaline. On Sept. 1st the left upper cervical glands became indurated; several hard movable nodules appeared in the abdominal walls, and headache was complained of, followed on Sept. 9th by continual vomiting. On Oct. 12th there was marked deafness, and the tongue deviated to the right; the temperature was generally raised throughout, till death occurred on Dec. 13th. At the necropsy sarcoma was found generally throughout the body; the peritoneum and mesenteric glands were largely affected; both ovaries and kidneys contained numerous new growths, calcareous in the former, but cystic in the latter; one growth was found in each lobe of the liver, but none in the spleen or lungs. The mammæ consisted almost entirely of new growths; the spinal cord was not affected; the brain was not examined.

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Mr. RIDER showed a Cyst removed from the Right Occipital Region of a girl aged six years. At birth there was a swelling in this situation, which became tense on the child laughing or crying. Latterly the mother noticed that the swelling did not enlarge as previously, but could not fix the date. The tumour on incision yielded clear fluid; the cavity was lined with a perfectly smooth membrane, and had a small process or neck at one part. It was regarded as an obliterated lateral occipital meningocele. Mr. Rider also showed a leg removed by amputation through the middle third of the thigh for extensive Tertiary Syphilitic Ulceration, exposing the tibia and fibula, a large vessel, and several cutaneous nerves. The patient, who was a woman aged thirty-three years, had been an inmate of the Lock wards of the Royal Albert Hospital, Devonport, before the repeal of the Contagious Diseases Acts. For the last two years the leg had given great trouble and caused intense agony when dressed, hence the operation.

The following office-bearers have been elected for 1896:—President: C. A. Hingston, M.D. Vice-Presidents: E. M. Russel-Rendle, C. Whipple, W. Square, and T. Leah. Treasurer: J. Elliot Square. Librarian: C. E. Russel-Rendle. Secretary: Reginald H. Lucy.

Reviews and Notices of Books.

Traité de Médecine et de Thérapeutique. Publié sous la direction de MM. P. BROUARDEL, A. GILBERT, et J. GIRODE. Tome premier: Maladies Microbiennes. Paris: J. B. Baillière et Fils. 1895. (*Treatise on Medicine and Therapeutics.* Edited by MM. BROUARDEL, GILBERT, and GIRODE. Vol. I., Microbic Diseases. Paris: J. B. Baillière and Sons. 1895.)

THE tide of comprehensive systems of medicine is flowing apace. Following close in the wake of the "Treatise of Medicine," edited by Charcot, Bouchard, and Brissaud, we have a new enterprise, which is to extend to ten volumes, and of which the list of contributors is not yet complete. Of the names of those already selected some are well known, others are those of writers unknown to fame. The style and character of the work, of which the chief editor is Dr. Brouardel, Dean of the Paris Faculty of Medicine, may be fairly estimated from the first volume already issued. It is plainly intended to present the very latest developments of medical science, and, if anything, it may possibly err therein by a too facile adoption of doctrines which have not received general sanction. The fact, for instance, that the term "maladies microbiennes" is employed as an alternative to the less debatable phrase, "specific infectious diseases," shows this. It also prepares the reader what to expect in the treatment of the subject, as the opening sentences of the volume show. "The medicine of to-day has its fundamental characteristic in the idea of causes. Now, organised and parasitic agents take the chief place amongst the causes of diseases; they constitute, as it were, a vital and stable etiology, which furnishes a firm basis for our conception of disease. This morbid group comprises three great divisions:—1. Microbic diseases. 2. Diseases provoked by fungi. 3. Diseases due to animal parasites." Thus, the recognition of parasitism in its widest extent is, and, we believe, correctly, regarded as the most important factor in disease. It is a striking testimony to the all-satisfying character of this view of the nature of infective disease that, although the relationship to microbic invasion has in the majority of instances not advanced beyond the stage of probability founded on analogy, it is assumed that this is the sole explanation for the occurrence of such maladies. So much is this the case that the phrase "germ theory" has practically fallen into disuse, for although it is still more or less a matter of hypothesis it is tacitly accepted as a fact. As a further indication of the bent of opinion on this matter, it is of much interest to find in this treatise separate sections devoted to such subjects as "Streptococcie," "Staphylococcie," "Pneumococcie," and "Colibacillose"—terms which are practically new to medical literature, and for which there is, so far as we are aware, no English equivalent, yet which denote with strict logical accuracy the outcome of modern bacteriological research. Thus, to the article "Streptococcie," by Dr. F. Widal, is appended an account of Facial Erysipelas, the introductory pages of the article being devoted to a description of the varied forms of septic disease to which this "common saprophyte of our cutaneous surface, and especially of our natural cavities," may occasionally give rise. "Of all saprophytes," says Dr. Widal, "capable of acquiring pathogenic properties, the most interesting, by reason of its ubiquity and the variety of the lesions it induces, is this streptococcus." Similarly, in the article "Staphylococcie," by Dr. J. Courmont, it is pointed out what an extensive part it plays in many septic inflammatory disorders, and the same holds of the pneumococcus, the author, Dr. L. Landouzy, stating truly that for the first time in a work of descriptive pathology is the subject of "Pneumococcie" dealt with apart. It has not, however, been apparently deemed advisable to append to this article a description of pneumonia, although in strictness that disease should be as much entitled to this place as erysipelas is in relation to streptococcal infections.

Having thus indicated the standpoint assumed by the editors of this new treatise, we may briefly advert to the articles contained in this first volume, premising that they are for the most part scholarly and profound. A very clear and interesting account of the general subject of microbic diseases is given by Dr. J. Girode, which, like all the writings, is thoroughly up to date. Variola is treated by Dr. B. Auché in an article of considerable merit—of especial value for the fulness with which the complications and sequelæ of this disease are dealt with. Vaccinia is discussed by Dr. H. Surment, who, it may be remarked, ranges himself with those who are not convinced of the unity between variola and vaccinia having been established. Varicella is contributed by Dr. L. Galliard. Scarlet Fever is treated by Dr. R. Wurtz, who, after noticing the various attempts made to associate particular forms of streptococci with this disease, is forced to the conclusion that, so far, nothing is known concerning the actual cause of scarlet fever. "Its pathogenic agent, like that of measles and variola, has yet to be found." The article on Measles is by Dr. Grancher, the well-known physician to the Paris Hôpital des Enfants Malades, whilst Dr. A. Netter writes on Rubeola, of which he says that it is perfectly distinct from measles on the one hand and roseola on the other, affections with which it is sometimes erroneously confounded. He remarks that this is an affection apparently more common in Germany, England, and "even in Switzerland and Belgium," than in France. Its highly contagious character is dwelt on, and it is averred that, "like measles, rubeola may be transmitted by a patient in the stage of incubation." The introduction of an article upon Miliary Fever, or the Sweating Sickness, by Dr. L. Thoinot, has more immediate interest for French physicians than for us in England at the present day, although, according to epidemiological history, this singular plague first appeared in these islands in the fifteenth century, and disappeared about the middle of the sixteenth century. A map showing the relative distribution of the "suette miliare" in France in the nineteenth century shows that it has prevailed in the majority of the departments, especially in the north and west, but it is happily not now so virulent in its effects as old records prove it to have been formerly. On the other hand, even so recently as 1887 an outbreak at Moulismes (canton of Montmorillon) yielded no less a death-rate than 35 per cent. Dr. A. Netter writes also on Influenza, of which a very

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summary historical account is given. Its contagious character is held to be proved by many concordant circumstances, and contagion alone is regarded as the efficient cause of its diffusion. A full notice is given of bacteriological studies, and the opinion is expressed that in Pfeiffer's bacillus the specific microbe has been made known. The same author writes on Dengue; whilst the articles on Whooping-cough and on Mumps are contributed by Drs. A. Legroux and L. Hudelo. Diphtheria, defined as "an infectious, contagious disease caused by a specific micro-organism, the bacillus of Löffler," is described by Drs. Grancher and Boulloche. It is interesting to note that the paralyses are given a prominent place in symptomatology, and that the subject of serum-therapeutics is referred to in most hopeful terms, the authors (writing in November, 1894) stating that its introduction had so far reduced mortality from "croup" by one-half, and from "angina" by two-thirds. Then follow the articles descriptive of the share taken in disease by the streptococcus, staphylococcus, pneumococcus, referred to above. "Colibacillose" is the title of an article by Dr. A. Gilbert, which deals with the pathogenic manifestations of the bacterium coli commune. This "germ, often considered to be harmless or even useful, is really a vigilant enemy concealed within the organism and ready to profit by its weakness." After death, too, it rapidly invades the viscera, and is one of the chief agents in cadaveric decomposition. The volume closes with a classical article upon Typhoid Fever by Drs. Brouardel and Thoinot, which is notable for the systematic manner in which each part of the subject is dealt with, for the knowledge of its extensive literature evinced by the authors,[1] and the thoroughly scientific treatment of the subject. We anticipate from the style and character of this volume that the treatise, when completed, will take a good position amongst works of its class.

Relations of Diseases of the Eye to General Diseases. By MAX KNIES, M.D., Professor Extraordinary at the University of Freiburg. Edited by HENRY D. NOYES, M.D., Professor of Ophthalmology and Otology in Bellevue Medical College, New York. pp. 467. London: Baillière, Tindall, and Cox. 1895. Price 18*s*.

THE importance of a thorough knowledge of medicine to the ophthalmic surgeon is indisputable; indeed, we may go so far as to say that no one should presume to practise ophthalmic surgery who has not prepared himself for his calling by familiarising himself with every other branch of the medical art. There is scarcely a single disease of the general system that may not implicate vision; scarcely an affection of the eye that is not referable to some disorder of the system at large and that is not to be treated by remedies addressed to that state as well as to itself as an organ of special endowments. The eye is apt to be troubled in the acute infectious diseases; in gout, in syphilis, rheumatism, and scrofula; in affections of the heart and bloodvessels of the lungs, alimentary canal, nervous system, urinary and generative organs; in pregnancy, at birth, and in old age. A knowledge of these normal and abnormal states, and of many particular diseases, such as leprosy, goitre, and helminthiasis, should be and is possessed by every competent ophthalmologist. There are, however, few treatises that deal with the relations between the eye and general diseases, though there are several that deal with the various manifestations in the eye of particular diseases, as syphilis and nervous affections. There was therefore room for such a treatise as that which has been written by Dr. Knies. The work commences with a short account of the anatomical course of the nerves of the eye, including the optic nerve, which is well, but not too elaborately, worked up to date, and the third, fourth, fifth, sixth, seventh, and sympathetic nerves. It is gratifying to find how much information we have recently obtained in regard to the origin of these various nerves as the result of careful clinical observation, of experiment, and of new and improved methods of microscopical investigation. Thus no less than eight centres or groups of cells presiding over the functions of the third pair of nerves have been established with some approach to accuracy, though of course much still remains to be done. We miss a reference to Stephan Bernheimer's interesting little brochure entitled "Das Wurzelgebiet des Oculo-motorius beim Menschen," though it is possible this may have appeared last year after Dr. Knies had written his treatise. As might be expected, the greater part of the volume is taken up with the description of the effects of lesions of the nervous system on the eye. The remaining chapters are occupied with the relations of the diseases of the eye to diseases of the skin, to diseases of the digestive organs, respiratory organs, urinary organs, sexual organs, to poisons and infectious diseases, and, lastly, to constitutional diseases. Although Dr. Knies has taken infinite pains in working up the literature of each subject and refers to an immense number of cases, of many of which he gives a *résumé*, he is no blind follower of other men's views, but exercises much judgment in drawing conclusions, whilst he is himself an accomplished ophthalmologist and an observer of much originality. We may notice, in passing, that the introduction of the reference in each instance into the text, instead of relegating it to a footnote, is a fault that the author would do well to avoid in the next edition. Such references often take up more than a line and interfere with the comfort of the reader by seriously interfering with the continuity of the text.

Dr. Knies considers that choked disc is by far the most important sign in the diagnosis of a tumour in the brain, and remarks that it usually begins quite suddenly, the papilla sometimes increasing to three times the normal diameter and projecting so far forward that it is not uncommon to find a difference of refraction amounting to four or five dioptres between the apex of the papilla and the general plane of the retina. At first hyperæmic, the papilla becomes pale with sinuous and often enlarged vessels. In one case he noticed several concentric rings around it due to folds of the retina. After a variable length of time the papilla again becomes redder; hæmorrhages appear in it, as well as whitish or yellowish degenerative foci. It then recedes and becomes of a chalky-white colour without visible details on its surface. All this occupies six or eight weeks or more. Various degrees and kinds of impaired vision accompany these changes, such as contraction of the field of vision, scotomata, colour disturbances, and the like, though "the ophthalmoscopic appearances and the disturbances of sight are often grossly disproportionate to one another." Choked disc, he goes on to say, does not occur with equal frequency in tumours of different parts of the brain. It is said to be somewhat less frequent in tumours of the frontal lobes, more frequent in those of the cerebellum. It may also accompany tumours of the spinal cord. Dr. Knies complains that few writers have distinguished between choked disc and choked (obstructive) neuritis. "In very many cases a distinction is not even made between choked disc and neuritis. Thus the English writers often use the term 'optic neuritis' in undoubted cases of choked disc," probably because the two conditions often run into each other. Anatomical examinations in man, he contends, prove indubitably that the choked disc of tumour of the brain begins as a pure œdema of the intra-ocular end of the nerve without any signs of inflammation, but at a

[1] A separate publication, "La Fièvre Typhoïde" (Paris: J. B. Baillière, 1895, price 9 francs), by these writers is an expansion of this article, and is a monograph of real value.

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later stage interstitial inflammatory changes may be found, but are sometimes absent in the specimen.

There is a valuable chapter on Hysteria, in which disease affections of the eye are not infrequent symptoms, sometimes presenting themselves in the form of disturbances of vision, sometimes of paralyses and spasms, at other times of disordered sensation and secretion, and at still others with peculiar associated sensations, as coloured hearing—the *audition colorée* of the French writers. Charcot maintained that a characteristic sign of hysteria is the unilateral concentric narrowing of the field of vision, with more or less impairment of central vision and colour perception, but other observers consider that hysterical disorders of vision are always bilateral. Dr. Knies has collected a very considerable number of cases of affections of the eye in hysteria and reports an important case in which there was great impairment of vision without visible ophthalmoscopic lesion; the patient dying from septicæmia after a slight operation, an opportunity was afforded of examining the parts, and Professor Leber found very distinct objective changes in the optic nerve, atrophic fasciculi being conspicuous. Dr. Knies regards hysterical paralysis and anæsthesia as being essentially peripheral in origin.

The treatise, as a whole, is extremely valuable, since it forms a clear and sound system of classification, so that, in future, cases can be disposed without difficulty under special headings, and the confusion which has hitherto existed will give place to orderly and rational arrangement. The translation is very well executed.

Twentieth Century Practice. Vol. III: *Drug Habits, Occupation Diseases, and Poisons.* Edited by THOMAS L. STEDMAN, M.D., New York City. London: Sampson Low, Marston, and Co. 1895.

IN this (the third) volume the article on Alcoholism and Drug Habits has been placed in the hands of Dr. Norman Kerr. The section on Alcoholism deals exhaustively with the acute and chronic phases of alcoholism, acute alcoholic insanity, and acute alcoholic epilepsy, a condition not always recognised; also with acute alcoholic paralysis. The treatment of alcoholism is lucid and exhaustive. The section on Morphinism is as good as that on alcoholism, the treatment being especially worthy of notice. The writer favours the gradual withdrawal of the drug, and has found it advantageous to spread the period of reduction over a term of from two to three weeks, or longer, and he prefers to begin at once by administering one-half of the usual quantity taken by the patient just before the treatment is begun. He also states that three months ought to be the minimum term that the patient should be under direct control, but that wherever it is possible at least double that time should be allowed. Dr. Kerr also considers chloralism, chloroformism, arsenicism, and several other drug habits, including the more unusual ones associated with gelsemium, paraldehyde, and antipyrin.

It would be useless to attempt to review all the articles contained in this volume, but we would draw special attention to one or two. Seasickness, or, to use the scientific term, "Naupathia," is treated of by Dr. A. L. Gihon, of the United States Navy. The author brings forty years' experience to bear, and has produced the best article on the subject which we have yet met with. After a careful review of the various theories which have been brought forward as to the pathology of this disagreeable but too well-known affliction, Dr. Gihon points out that there is substantial agreement among the most recent authorities as to the place of naupathia among the neuroses. It is primarily and essentially a marine vertigo. The movements of the vessel disturb the accustomed relation of the individual to surrounding objects and convey through various channels a succession of irregular and unexpected shocks to the nervous system, which fails to effect the necessary adjustments for equilibrium, inducing at first vertigo, "nervousness," malaise, headache, and afterwards, the sympathetic system being involved, nausea, vomiting, and prostration. With regard to treatment, after a careful study of the various methods which have been suggested or lauded by many authors, Dr. Gihon is forced to the usual conclusion that the simplest and most efficacious is to follow the counsel of Rey, as quoted by Irwin, "Fermez les yeux et prenez patience." Another interesting paper on an unusual subject is one by Dr. Georg von Liebig of Munich on Mountain Sickness—an excellent and carefully studied paper.

The section on Diseases of Occupations is by Dr. James Kendrie Lloyd of Philadelphia. The amount of information given on this subject may be judged by a mere enumeration of some of the occupations considered: workers in arsenic, mercury, lead, phosphorus, copper, zinc, tin, chromium, chlorine, bromine, iodine, cyanogen compounds, illuminating gas, aniline, alkalies, &c.; also effects of injurious environment, such as heat, cold, compressed and rarefied air. Then follow the fatigue neuroses, writer's cramp, telegrapher's cramp, miner's nystagmus, and effects of constrained attitudes whilst following various trades, shoemakers, porters carrying heavy weights, &c. Altogether Dr. Lloyd's article occupies nearly two hundred pages, and in itself is a most valuable monograph.

The subject of Poisons is dealt with by Dr. Beaumont Small (Organic Poisons) and by Dr. James Stewart (Non-organic), both papers being creditable to the authors. Other articles in this volume are: Shock and Collapse, by Dr. G. F. Shrady of New York; and Osteomalacia, by Dr. Councilman of Boston.

Taking the volume as a whole, we have nothing but praise for it, and if the succeeding volumes equal it and the two previous ones in quality the encyclopædia will form a most valuable library.

A Manual of Physiology, with Practical Exercises. By G. N. STEWART, M.A., D.Sc., M.D., D.P.H. Camb., of Downing College, Cambridge, Professor of Physiology in the Western University, Cleveland, U.S.A. London: Baillière, Tindall, and Cox.

OUR students are already numerously supplied with manuals of physiology; a new text-book on the subject must therefore make its way by sheer force of merit among others. We may say at once that the one before us, a new manual by Professor Stewart, amply deserves to do so. It is one of the very best English text-books on the subject. In this country physiology is a branch of education mainly because it is among "the institutes of medicine." Its place among these institutes is kept by virtue of threefold claims. (1) The subject contains a number of facts about the normal body which form knowledge necessary to all who are to deal with the reactions of disease; (2) the subject works by methods which, as compared with those applicable at the bedside, are rigorously precise and scientific and thus afford to the medical student a wholesome training towards accuracy of observation and cautiousness of inference; and (3) for that smaller number of students who intend exclusive devotion to consultation work or to medical research it is valuable as teaching theory and technique applicable to medical research itself. From each of these three points of view the manual before us is a thoroughly excellent work. It contains a justly-selected sufficiency of facts; its theoretical disquisitions are remarkably lucid; and both fact and theory are treated with a breadth and power that prove the writer to be absolutely capable both as regards the principle and practice of what he is describing. On not a few pages

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literary merit is displayed of an order rarely met with in science handbooks. We may quote, in instance, the following from p. 373. In vigour and picturesqueness it challenges comparison with the well-known passage in the closing chapter of Foster's Text-book, where "death" is the theme of the chapter:—

"*Living and Dead Proteids.*—Now and again a living proteid molecule in the whirl of flying atoms which we call a muscle fibre, or a gland-cell, or a nerve-cell, falls to pieces. Now and again a molecule of proteid, hitherto dead, coming within the grasp of the molecular forces of the living substance, is caught up by it, takes on its peculiar motions, acquires its special powers, and is, as we phrase it, made alive. But it is not any difference in the kind of proteid which determines whether a given molecule shall become a part of one tissue rather than of another. For it is from the serum-albumin and serum-globulin of the blood that all the proteid material required to repair the waste of the body must ultimately be derived; and a particle of serum albumin may chance to take its place in a liver cell and help to form bile, while an exactly similar particle may become a constituent of an endothelial scale of a capillary and assist in forming lymph, or of a muscular fibre of the heart and help to drive on the blood, or of a spermatozoon and aid in transferring the peculiarities of the father to the offspring. Indeed, although there are differences of detail the broad lines of nutrition are the same for all tissues, and just as a tomb or a lighthouse, a palace or a church, may be and has been built with the same kind of material, or even in succession with the very same stones, so every organ builds up its own characteristic structure from the common quarry of the blood."

In one feature the book stands unique among the English manuals; it includes a number of directions for practical exercises. At the end of each of several chapters various exercises appropriate to the subject-matter of the chapter are appended, printed in smaller type with circumstantial details and with figures. This we regard as a step forward in a good direction. It emphasises the value to the student of making some observations for himself. The author, responsible as he now is to his transatlantic pupils, has wisely thought it necessary to go outside the limitations imposed upon students of physiology in the mother country. Among the observations for which he therefore gives directions are some which could not in this country be performed except under licences such as are never granted to students by our own Home Office. Some of the exercises will be especially welcome to teachers, however, in this country: notably one dealing with the "circulation time" on p. 157.

A useful sketch of the comparative physiology of digestion and respiration is prefixed to the chapters dealing with those subjects; in this respect a deficiency in our existing text-books is met, and the volume gains by giving the student the broader aspects of those problems which interest mainly in their particular application to man alone. That the author is well known for his researches in electrical physiology and into questions connected with blood-flow and with animal heat may be the reason that his chapters on those divisions of the subject appear to us to be perhaps especially excellent. The critical account given of the functions of the cerebral hemisphere is also particularly judiciously and clearly expressed. The text is well up-to-date; even such lately published matter as Schäfer and Oliver's vaso-convulsant toxin from the supra-renal gland is included, and a practical exercise upon it given. In a second edition, which we hope the work will speedily reach, some corrections of verbal errata should be made; thus on p. 252 occurs "of" for "off," "copartnery" for "partnership." The explanation of the Helmholtz method for reducing "break" shocks to equality with "make" shocks might be more clearly put; it is a point of difficulty to some students. Under quantitative estimations of uric acid the useful ammonium chloride method might with advantage be included. The index to the volume is imperfect and might be much amplified; but the text is too well arranged for this defect to interfere seriously with the handiness of the volume for reference. The illustrations are profusely numerous and are good, the majority being also original. There are in addition to figures in the text five page-plates—coloured lithographs from sketches of histological preparations.

Guide to the Medical and Dental Professions; with a chapter on Lady Doctors. By PERCIVAL TURNER. London: Baillière, Tindall, and Cox; or of the Author, 4, Adam-street, Adelphi, W.C.

OPPORTUNITIES of becoming acquainted with the financial and business department of a medical practitioner's work constantly occur to the author of this volume, and he has given us in its pages some of the results of his experience. The weekly journals abound with instances of the difficulties which befall many of us through lack of worldly wisdom and adroitness—an unfortunate state of things, no doubt, but perhaps inevitable, for medical education and training do little or nothing to develop the qualities essential to those whom it is customary to describe as "good men of business." Individual experience—too often dearly bought—in course of time supplies the deficiency, but this tedious and costly teaching may be to a great extent avoided by attention to Mr. Turner's precepts. The subjects treated of by him are very necessary to be understood by the great majority of practitioners, but it is keeping well within the mark to say that most young medical men have only vague notions respecting them and can hardly fail to derive some benefit from the suggestions of a competent adviser. A general idea of the nature of the book may be gathered from the headings of some of the chapters, which are as follows:—Qualifications and Registration (Chapter III.); Covering and the Employment of Unqualified Assistants (Chapter IV.); the Medical Agent (Chapter V.); Assistants and their Duties, Principals and Assistants, the Locum Tenens (Chapters VI., VII., VIII.); Appointments (Chapter IX.); Setting Up and Purchase of a Practice, Partnership, How to Sell a Practice (Chapters X., XI., XII.); Arbitration (Chapter XIV.); Book-keeping (Chapter XV.). Chapter XVI. is devoted to Dental Practice, which, in the author's opinion, affords better prospects of success than medical practice does. Miss F. M. Strutt-Cavell contributes a chapter on Lady Doctors.

Analytical Records
FROM
THE LANCET LABORATORY.

THE PERFECTED WYETH BEEF JUICE.

(WYETH AND BROTHER, PHILADELPHIA. LONDON: BURROUGHS, WELLCOME, & CO., SNOW-HILL-BUILDINGS, E.C.)

WE have commented before upon the real excellence of this preparation, which has further been improved by increasing its degree of concentration in such a manner as also to increase its stability. Our results of analysis are in perfect accord with these statements. Thus we find that the two albuminous constituents of beef juice, expressed in the cold, and which solidify on heating the juice, are increased 30 per cent., amounting in the new preparation to at least 4·24 per cent., or 18 grains of dry beef albumin in a fluid ounce. The other extractives of beef are similarly in richer proportion. The total organic matter, for example, of the old preparation was 38·01 per cent., in the new it is 47·30 per cent. The mineral matter in the old was 17·12 per cent., and in the new it is 18·16 per cent. We find it is still free from objectionable preservatives, while the flavour is agreeable and such as can only be due to the selection of beef of the

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finest quality. It contains all the force and energy giving matter of beef in a pleasant and in a rapidly available form.

(1) IMPROVED GELATINE CAPSULES; (2) EFFERVESCENT FRUIT TABLETS.

(JOHN RICHARDSON AND CO., LIMITED, LEICESTER.)

Gelatine capsules with various drugs contained therein have recently been submitted to us by this firm; these capsules leave nothing to be desired in regard to flexibility and the ease with which they are swallowed and other special properties which render them a valuable means of administering drugs, and especially nauseous drugs. Flexibility in particular is a characteristic of these capsules worthy of commendation. There is no difficulty in swallowing them, so readily do they yield to whatever shape that pressure brought to bear upon them may demand, the slippery effect produced upon the gelatine by the saliva successfully aiding their passage. The specimens sent us included Pil. blaud = 1 dr.; ol. santal. ung. = 10 m.; quiniæ sulph. = 3 gr.; pot. bichrom., 1/6 gr.; colchici sal. 1/60; ol. ricini, 15 m.; bals. copaibæ, 10 m.; and syr. Easton 30 m. The effervescent fruit tablets, of which we have received five varieties, are excellent. They are most pleasantly flavoured and delicately acid, dissolving with effervescence in the mouth, promoting the flow of saliva, and thus affording relief to thirsty feeling. The flavouring included in one instance lemon, in two lemon and rose, in three orange, in four orange and rose, and in five lime. The delicate and attractive flavour and fragrance of the lime have been secured in the last tablet in the list with particular success. The tablets are distinguished by delicate colouring, characteristic of the fruit from which the flavourings are derived. The colouring material, according to our examination, is free from objection. The tablets create a very pleasing and cleansing sensation in the mouth and induce a flow of saliva which lasts for some time. They will be found very useful in dryness of the mouth and will afford a resource of distinct service to cyclists and others engaged in outdoor exercises, as well as to those who require to use their voice continually.

WIESBADEN GOUT WATER.

(WIESBADEN BRUNNEN COMPTOIR, LONDON, 25, GREAT TOWER-STREET, E.C.)

A litre of this water contains, according to our analysis, 8·47 grammes of bicarbonate of soda and 7·84 grammes of common salt. It is practically free from lime salts and contains but a trace of sulphates. It contains a slight excess of carbonic acid gas, so that it is gently effervescent on withdrawing the cork from the bottle. Its composition, therefore, is well suited to those requiring a course of carbonated alkaline and saline waters and the water should be useful in the treatment of gouty disorders arising from chronic indigestion, from hyperacidity, or those connected with them, as in hepatic derangement. The dissolved carbonic acid gas present adds, probably, to its efficacy chiefly in exerting a sedative action upon the gastric nerves. The water has the softness of salinity and taste characteristic of a natural water, which is not found in an artificial water of the same composition.

PITKEATHLY WATER, PLAIN, AND PITKEATHLY CUM LITHIA.

(REID AND DONALD, PERTH; LONDON: D. WHEATLEY AND SONS, 24, SOUTH AUDLEY-STREET, W.)

Pitkeathly is a perfectly bright and sparkling water, yielding an alkaline residue on evaporation equivalent in acid neutralising power to about six grains of bicarbonate of soda per pint. It is free from organic impurity and is characterised by a marked softness of flavour. It contains traces of lithium, according to the evidence of the spectroscope. It is a very pleasant and wholesome table water, and care is evidently taken in the collection and bottling, since every one of the specimens examined was quite free from sediment and other objectionable suspended impurities. Pitkeathly cum lithia manifests an alkalinity equal, according to our analysis, to 10½ gr. of bicarbonate of lithium to the pint. The residue obtained on evaporation gives, when made acid with hydrochloric acid, a strong crimson-red band in the spectroscope. It is pleasantly sparkling and agreeably smooth to the taste. It may be used with advantage as a diuretic, and to some extent as a uric acid solvent.

NEO-KOLA.

(THOS. CHRISTY AND CO., 25, LIME-STREET, E.C.)

Neo-kola is stated to consist entirely of pure kola, with a trace of vanilla flavouring. It is a fine, chocolate-coloured powder, which, when prepared in the same way as cocoa, affords a palatable and stimulating beverage. It is said to obviate waste of tissue during fatiguing exercise, because of the presence of a glucoside, "kolanin," or kola red, of which it has been estimated by analysis to contain nearly 4 per cent. We found in the preparation which contained 10 per cent. moisture, 2·55 per cent. of caffeine, the mineral matter consisting of alkaline carbonates and phosphates amounting to 3·9 per cent. It certainly merits trial as a substitute for tea, coffee, or cocoa, and we do not doubt that it would be of distinct service in cases of unusual fatigue and exhaustion.

PREPARATIONS OF THE LIQUOR CARNIS CO.

(LIQUOR CARNIS CO., 28A, FARRINGDON-STREET, E.C.)

There is now no gap in the really excellent list of foods of the Liquor Carnis Co. Their list provides two classes of preparations—those containing raw beef juice, and those prepared with bone marrow—one or other of the members of which will be found to comply with any special requirement which a patient may exhibit. To the first belong—Liquor Carnis, a powerful beef essence expressed in the cold, which is the embodiment, therefore, of the real nutritive qualities of a beefsteak; Malto-Carnis, a highly satisfactory combination of liquor carnis with malt and cocoa, of pleasant flavour, and representing the nourishing principles of beef, the digestive properties of malt, and the stimulating qualities of pure cocoa; and the Liquor Carnis Company's Meat Juice, a fluid essence containing the vital albumins of beef unchanged. To the second class belong—the ingenious compound known as Virol, which, being composed of red and yellow bone marrow and the fats and proteids of raw eggs in a ratio in accordance with physiological requirements, with the addition of active malt extract, is doubtless an excellent, as it is a very pleasant, substitute for cod-liver oil; Marrol, consisting of marrow fat and active malt essence, which presents the appearance of a perfectly uniform fluid, with no free fat, but which separates in tiny globules on the addition of water; and, lastly, Virol-sans-Sucre, identical in properties with ordinary virol but specially adapted to the requirements of those who cannot take sugar. As we have said, the list is practically complete, being designed for all classes of patients and containing a series of admirable foods the composition of which is founded upon a sound and safe physiological basis. Some of them we have examined before, and it is satisfactory to be able to report that their standard of quality and strength is more than maintained.

MENTHOL SNUFF.

(BURROUGHS, WELLCOME, AND CO., SNOW-HILL-BUILDINGS, E.C.)

This is a yellowish powder containing menthol, cocaine (one-sixth per cent.), ammonium chloride, camphor, and lycopodium, of a degree of fineness and lightness which make it well adapted for administration as snuff. It is put up in neat japanned boxes, convenient for carrying in the pocket. The powder is characterised by the peculiarly agreeable smell of the volatile oils indicated which render it useful as a mild local anæsthetic and as a vascular stimulant

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and antiseptic, particularly in catarrhal conditions of the nasal cavities.

"BIG RAPIDS" MEDICINAL WATER (ALTERATIVE).

(INGRAM AND ROYLE, LIMITED, 52, FARRINGDON-STREET, E.C.)

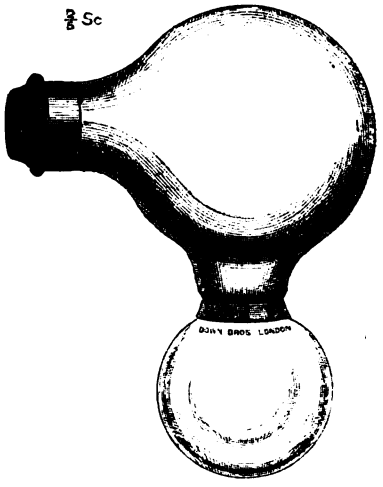
Some idea of the degree of mineralisation of this water may be gained from the fact that it contains about ten times the quantity of mineral salts present in an equal volume of sea water. Nor are the constituents very widely different, 73 per cent. of the saline residue (itself amounting, according to our analysis, to 338·60 grammes per litre) consisting of common salt, 18·5 per cent. of calcium chloride, 8·0 per cent of magnesium chloride, and 0·5 per cent. of bromide of sodium. It is, in fact, supercharged with salts—is saturated. It is described as the strongest natural medicinal water known, as an alterative and not purgative, as proof against freezing, and as non-injurious to jewellery. The addition of chlorine water turns the water a bright brown colour from the liberation of bromine. Except, perhaps, for the important quantity of bromide of sodium it contains, we do not know what advantages it offers therapeutically over a saturated solution of common sea salt, used either externally or internally as recommended.

New Inventions.

A SIMPLE FORM OF EVACUATING SYRINGE FOR LITHOTRITY CASES.

I HAVE lately had made for me an evacuator which presents certain advantages over those generally used in the operation of lithotrity. It consists of an indiarubber ball, shaped like a pear with two stems, one at right angles to the other. The one carries a vulcanite or metal socket to receive the evacuating catheter, the other a glass receptacle for débris. This is the whole apparatus; there are no valves, no taps, and no detachable portions; the shape is such as to allow of direct filling and cleaning, the action of gravity alone being depended on to prevent the return of débris into the bladder, and the skill of the manipulator to obviate any escape of fluid. The simplicity of the apparatus is such as to raise doubts of its efficiency. I have, however, used it in some 100 lithotrities, removing with it stones of four, six, and eight ounces, and in one case a dense stone weighing twelve ounces. In this case the operation was completed in 125 minutes, being at the rate of 46 grains a minute—a record which but few syringes have surpassed. I can, therefore, confidently recommend operators to give the instrument a trial, and I think they will find that it possesses the following among other advantages. 1. It may be very easily and thoroughly sterilised by chemical antiseptics. This point has not, I think, received sufficient consideration, and it is very easy to see that an infected syringe may have a very prejudicial effect on the result of an operation. 2. Its shape is such as to allow the operator full control over the movements of the evacuating tube, and the size and shape of the ball may be varied to suit different operators. 3. It is greatly cheaper than any other form.

The following directions should be attended to in its use. In filling the syringe (the open end being held uppermost) water is introduced from a tap or jug; when three-quarters full the syringe must be slightly tilted to empty the glass receptacle of air. On attaching the syringe to a catheter the filled syringe is closed by the operator's right thumb and brought up to the end of the catheter; the thumb is then slipped aside and the connexion rapidly made. With a little practice not a drop of water need be spilt. If preferred, the catheter, filled with water, may be attached to the syringe before introduction. In the evacuation of débris the compression should be, as usual, gradual and the expansion sudden. A very slight pause should be made after expansion to allow the fragments to settle. The construction of the syringe is such that it forms practically a handle to the evacuating tube; under these conditions the exploration of the bladder cavity by the tube is greatly facilitated, and fragments may be readily sought for, identified, and removed either from the general bladder cavity or from sacculations. On emptying the syringe close the orifice with the thumb, invert the syringe so that the glass receptacle becomes the highest part, and the débris falls into the ball cavity. Now turn the syringe so that the orifice becomes the lowest point and allow the débris to settle; then remove the thumb and the débris escapes with

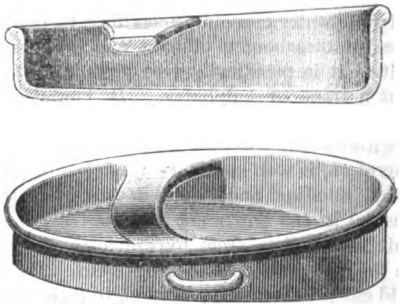


the water, one or two squeezes expediting the escape. It may be necessary to rinse with sterile water to remove the last fragments. For sterilising fill the syringe with hot lysol solution (2 per cent.) or sublimate (2 per cent.) and leave for twenty minutes; wash out well with sterile water. The syringe may be obtained from Down Bros., St. Thomas's-street, Borough, London.

Cairo. H. MILTON, M.R.C.S. Eng., L.S.A.

COMBINED BED AND DOUCHE PAN.

FINDING that with the ordinary bed-pans I was unable to give vaginal douches without considerable discomfort to the patient, from the water passing over the back of the pan into the bed and so wetting the bed or night-clothes, I devised this pan with the view of obviating this nuisance. The accompanying diagram will best explain what I claim for it.



The patient's buttocks rest on the bridge so that any water running out of the vagina and passing under the thighs re-enters the pan behind the bridge, instead of, as in the ordinary bed-pans, being conveyed into the bed or up the patient's back. Other points in favour of this pan are—(*a*) the large quantity of fluid it will hold, thus allowing of free douching in cases of vaginal irrigation; (*b*) the fact that it can be used equally well for the ordinary purposes of a bed-pan; (*c*) the ease and thoroughness with which it can be cleansed; (*d*) the ease with which its contents can be examined, there being no corners or hidden places anywhere; and (*e*) the comfort to the patient, and the fact that she can adjust it by means of the handles at the side comfortably in position. The pans are made by Messrs. Woodward and Rowley of Swadlincote. I have had one in use for some months, and patients and nurses speak of it as being much more comfortable than the other pans in use.

H. WYCLIFFE FISHER, L.R.C.P. & S. Edin., &c.

Swadlincote.

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THE LANCET.

LONDON: SATURDAY, JANUARY 4, 1896.

A NEW YEAR is not so new as it seems. It has relations with the old years which largely determine its character and its uses. Yet it teems with possibilities and excites new hopes and new exertions. The last year has been in a medical sense uneventful. Excepting during the influenza and the cold of the early months of the year, there has been no great demand for medical practice, which has accordingly been quiet and unremunerative. "So much the better for us," the public will say. And we would say so too—with this reflection that the public owes its ever-increasing health and longevity to the medical profession, for which it has less frequent need. The medical profession rejoices in the public health and is never tired of showing the ways in which it may be still further promoted. By its labours many groups of disease are practically eradicated, and of others the duration is shortened and the pain abated. It may be thought sometimes by medical men that there has been no corresponding growth of respect and gratitude for medical service. There is much to be said in support of such a complaint; but there is little use in saying it. It is to more purpose to admit that, if medical service is not adequately appraised, it is in no small degree the fault of the medical profession itself. It has made itself too cheap. "Advice gratis" is the special motto of the medical profession till it has come to be thought that no medical advice should be paid for, or that any pittance is enough for it, though given in the dead of night when all other of HER MAJESTY'S subjects are enjoying repose. We must in justice correct this demoralising habit of the profession before we can justly complain that the public does not fully appreciate our services. We are not denying that many people appreciate medical service. There are numerous grateful patients, and to serve them is one of the greatest pleasures of life; but none the less it must not be forgotten that the medical labourer, like every other worker, is worthy of his hire. One of the great questions before us as a profession in the new year is how to make medical service respected. The answer is, first, by making it good—of the very best that can be got out of our present knowledge, and then by insisting that it shall be given on proper and dignified terms. If we do not dwell on this question it is because we shall have to deal in detail with it in connexion with several movements which are likely profoundly to affect the relations of the profession to the public, and the harmony of the profession itself.

There are two medical questions of vast importance to the public and to the profession which are likely to receive much elucidation in the course of the year that has just begun. One of these is the question of compulsory vaccination, the other is that of the virtue of antitoxin in the treatment of diphtheria. Both these questions illustrate how largely disease and the treatment of it have become public questions, and how enormous is the interest of the public in medical science and its quick and ready application to individual cases. It is not for us to anticipate the judgment that will be passed on these questions, though it may be permitted to us to wonder that a discovery like vaccination, which has been accepted by the whole civilised world almost for a hundred years, should be still under discussion as a question of compulsion. The liberty which civilisation develops seems to cut two ways. But we are anticipating. It will be a study in civilisation and in politics to see how a Royal Commission presided over by so able and respected an intellect as that of the ex-Lord Chancellor, Lord HERSCHELL, will treat a subject of such huge consequence to the health of the State. The other question is of scarcely less consequence, though still in the stage of experiment. Those who talk so glibly in deprecation of legitimate experiment in medicine do not take into account the saving of life which it has effected. They have probably never had the personal experience of having a child afflicted with hydrophobia, or tetanus, or diphtheria, or we should hear less of these criticisms. The State puts itself *in loco parentis* as regards 40 or 50 per cent. of some of the gravest infectious diseases of London. It will be interesting to see how far it behaves as a wise and sympathetic parent, or a cold and critical pedant with far-fetched, fantastic notions of liberty.

In any forecast of the year it is scarcely possible to omit some consideration of the general outlook of affairs. It is undeniable that this is less pacific than it has been for years. We have much pleasure in thinking that literary and scientific men are joining their voices with those of the preachers in denouncing the idea of war between ourselves and our great English-speaking relatives of the United States. The mutual intercourse of the members of the medical profession in the two countries for the last generation has been of the most intimate and beneficial character, as has been well set forth by Sir HENRY ACLAND in his letter to the *Times*. During these long years medical science has been pursuing its "victories" of "peace." It is inconceivable, if the question of peace or war turned on the judgment of medical men, that there should be any doubt about the result, or any interruption of existing relations. Democracy, we believe, will still be guided largely by the professions—by men who give their life to the study of the highest questions that affect the welfare of nations. God grant that it may be so, and that in the coming year the world at large may little need to test the advances which have been made by medicine in opposition to the arts of destruction.

JOURNALISM dates from Imperial Rome, when, from the city, accounts of the army and its operations were sent to commanders-in-chief throughout the Empire—accounts called "Acta Diurna," which passed from general to subaltern in camp or in quarters and thereby initiated that "circulation" on which the newspaper system depends. With the collapse of the Roman organism that feature of civilisation, like many others, disappeared, to re-emerge in the Middle Ages, or rather in the "High Renaissance," when it took its first real start, not for the purpose of registering the advance or retreat of armies, but as an auxiliary in a far nobler enterprise—that of the rescue of

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humanity from misery and want, from disease and premature death.

THÉOPHRASTE RENAUDOT, one of medicine's forgotten worthies, is the "hero and eponymus," if not of modern journalism as a whole, at least of that higher journalism which takes cognisance of the physical and moral requirements of the citizen in their largest as well as in their most detailed sense. Medically trained — indeed, a "physician before his time," such as even MOLIÈRE would have spared—RENAUDOT, early in the seventeenth century, instituted in his own house in Paris a consulting-room for pauper patients and clinical wards for urgent cases, with a laboratory for the aid or correction of diagnosis as well as for the preparation of medicaments. In this way he penetrated into the *vie intime* of the poor, and as a means of their rescue or rehabilitation he started a "Gazette," primarily to announce the names, the characters, the qualifications, and the addresses of his honest and well-intentioned clients in want of work. Listening to many a tale of hopeless struggle with hard conditions, he became aware of the poor narrator's circumstances, the ill-health that beset him or his family, or the death from disease or starvation that awaited both. In 1640 he instituted his "Assistance Publique à Domicile"—an outgrowth from his "Gazette," and a practical supplement to the same—thus inaugurating two of his country's mainstays, whose humble beginnings are almost overlaid and forgotten in the magnificent development they have reached It is with his journal, however, that we are more immediately concerned to-day. It was still almost in its cradle when, like Hercules, it had to grapple with the two great serpents of modern civilisation—Privilege and Corruption. These were most strongly entrenched in the institutions with which his humanitarian zeal brought him into daily contact—the medical corporations. The abuses of these; the nepotism in their *personnel;* the deflection of their funds from the object with which they had been bequeathed into the coffers of mercenary hangers-on; and the practical defeat of the charitable—and above all, of the relieving or curative—mission of their founders—these provoked him to indignant protest and to scathing exposure, till he became involved in animated controversy with their self-interested upholders and the hirelings in their pay. But he triumphed in the end. The lusty blows he dealt at the institutions he assailed were so salutary to themselves as well as to the public cause that, in the words of CAMILLE DES MOULINS, "his pen, like the spear of ACHILLES, healed the wounds it inflicted." To him and his "Gazette" France owes the beginning of her improved hospital and teaching system. But his beneficient activity did not stop there. Primarily interested in the relief of the poor, he not only protected them from the exactions of the usurer by the establishment, on the Italian model, of "Monts-de-Piété," but he safeguarded those institutions by a system of inspection whereby the removal to them of infected wearing apparel from the owner's house was effectively supervised. He was thus, says the distinguished sanitarian and toxicologist of the University of Paris, Dr. BROUARDEL, "the beginner of a long series of regulations now recognised and in working in State medicine," thus educing good from evil and making his medico-journalistic knight-errantry the renovating force by which society from its lowest grades upwards was purified and strengthened.

From the broad humanitarian initiative of RENAUDOT and his "Gazette" medical journalism gradually assumed a more specialised, more professional, phase, and in Germany, for instance, we had the first exemplar of the newspaper as an auxiliary of the healing art in HUFELAND'S *Journal der Heilkunde*, started more than a century ago. Since then the weekly and monthly or quarterly literature of the profession has multiplied till the very titles of its periodical publications would fill a volume, and the student, the investigator, and above all the practitioner, is bewildered amid the number of caterers for his professional or scientific refection. So much is this the case that an eminent teacher and pioneer of science at the Eleventh International Congress of Medicine and Surgery took the sense of that great assembly as to how to economise the reader's attention amid such an *embarras de richesses* and spare the investigator, already severely taxed as to time and working power, the mortification of retracing ground already traversed and announcing as his own a "discovery" made in another hemisphere or described in the organ of another school. But, whatever method may be devised to concentrate the scattered lights of observation and research, and so to perfect the "Dionysius ear" of medical journalism, let us not forget the pioneers but for whom those lights would have been, if not withheld, at least disastrously postponed. RENAUDOT, we have seen, made the healing art a subject of social and State interest by turning on it the bull's-eye of publicity and bringing to the light of day the abuses, the corruption, and the perpetuation of incompetence that defrauded the profession and the public of their legitimate rights. The ground was thus cleared for those profounder, more specialised studies by which medicine as an instrument becomes refined and perfected, till the practitioner and the investigator alike can pursue their avocations with a free hand and an undistracted eye. What was achieved for France by her all too tardily acknowledged benefactor was performed for the English-speaking world by the Founder of THE LANCET, whose crusade against abuses parallel with that of his French prototype was all the more strenuous insomuch that these had been in-woven and in-grained into the very fibre of a more advanced civilisation. Influences of every kind—wealth, position, the prestige of eminent names—were all arrayed against him—all, one by one, to go down and disappear before his intrepid and uncompromising criticism. At the opening of another year, the seventy-third anniversary of its birth, THE LANCET may be excused for this momentary retrospect of its past. "Excused," we say, for the very ardour with which the perennial fight with disease is fought, the very intensity with which new weapons of precision are fabricated and new wielders of them told off in great force to the front, are apt to induce forgetfulness of the strategy that conceived, and the right arm that won, the vantage ground whence victory will be finally assured.

THE examinations of the Conjoint Board in England have undergone great modifications recently, and will apparently

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undergo some further change at an early date. Students who were registered before Jan. 1st, 1892, and who have commenced, or shall commence, their studies on or after Oct. 1st, 1894, are examined on a four years' curriculum of study. Their examinations are divided into three—viz., a First Examination in chemistry, with chemical physics, materia medica, and pharmacy, elementary anatomy, and elementary physiology; a Second Examination in anatomy and physiology; and a Third Examination in medicine (including therapeutics, medical anatomy, and pathology), surgery (including surgical anatomy and pathology), and midwifery (with diseases peculiar to women). With the exception that at the Second Examination anatomy and physiology must be taken together, any of the other subjects may be taken singly. With the institution of a Five Years' Curriculum a complete change in the examinations took place, and new regulations were laid down for all students who have been registered since Jan. 1st, 1892. The examinations were increased to four—viz., a First, Second, Third, and Fourth or Final Examination. In the First Examination elementary biology was substituted for physiology, and materia medica was omitted, so that the subjects appear as chemistry and physics, practical pharmacy, elementary biology, and elementary anatomy. Practical pharmacy could be postponed until the Third Examination. The Second Examination, in anatomy and physiology, was unaltered. The Third Examination, for which the candidate only became eligible at the end of four years' study, was extended, for under the head of medicine we now find medical anatomy, pathology, practical pharmacy (if not passed before), pharmacology, therapeutics, forensic medicine, and public health. Elaborate synopses are published as to the range of the examinations in pharmacology (now appearing as a distinct branch of medicine), forensic medicine, and public health, and it would be difficult to make them much more comprehensive. Surgery and midwifery remained as before, except that an option was allowed to the candidate as to whether he presented himself in midwifery at this or the Final Examination. The Final Examination at the end of the fifth year was simply stated to be in clinical medicine and clinical surgery, without any further explanation. This scheme must have been found unworkable as to its Third and Final Examinations, and no one has been examined under the regulations.

On Nov. 22nd of last year a revised system of examinations was issued. The examinations are again reduced to three—viz., First, Second, and Third or Final. Elementary anatomy has been omitted altogether, so that the subjects of the First Examination now stand as chemistry and physics, practical pharmacy, and elementary biology, but practical pharmacy may be passed at any time during the curriculum. The Second Examination is again left untouched. The subjects of the Final Examination remain as before and as regards medicine and surgery can only be passed at the end of the fifth year of study. The examinations, however, will be much extended, for there will be two papers in medicine, including forensic medicine, public health, pathology, and therapeutics; microscopical specimens will be introduced into the surgical *vivâ-voce* examination; and the clinical examinations in medicine and surgery will be increased in length. The examinations in midwifery and in pharmacology, which now appears as a separate subject, may be passed at any time after the end of the fourth year. A separate paper in pharmacology, without any *vivâ-voce*, is proposed, and candidates may be rejected in this branch of medicine alone, without any regard being paid to their proficiency in the rest of their medical work. Pharmacology is thus separated from practical pharmacy and therapeutics and put on a level at the final examinations, so far as the rejection of the student is concerned, with medicine, surgery, and midwifery. But why stop here? Why should not the candidate have separate papers in pathology, therapeutics, forensic medicine, and public health, and be rejected if he does not come up to the standard in every one of these subjects, his proficiency in the others being altogether ignored? This would be the logical outcome of the new regulations. However, as probably the Conjoint Board in England will govern the curriculum of the average student in London for some time yet, we are pleased to see that the Royal College of Physicians of London, with the consent of the Royal College of Surgeons of England, has placed pharmacology in its former position as a subsidiary branch of medicine, and has not left it "a distinct position as a subject separate from medicine, midwifery, and surgery."

We therefore anticipate the issue of another revised set of regulations at an early date, so that candidates under the five years' curriculum may really know their position at the Final Examination and how to employ their fourth and fifth years of study to the greatest advantage.

Annotations.

"Ne quid nimis."

THE NEW YEAR HONOURS.

IN the list of the honours which it is customary for Her Majesty to confer at the beginning of the New Year are included the names of six members of our profession: Surgeon-General Sir Joseph Fayrer, K.C.S.I., LL.D., M.D., F.R.S.; Robert Martin Craven, F.R.C.S. Eng. and Edin.; Willoughby Francis Wade, M.B., F.R.C.P.; James Acheson MacCullagh, M.D.; Surgeon-Lieutenant-Colonel Samuel Haslett Browne, M.D.; and Henry Alfred Alford Nicholls, M.D. When Surgeon-General Sir Joseph Fayrer retired from his duties in connexion with the India Office, we took occasion to advert to the long and varied services in which he had been engaged, to the way in which his name might be said to be historically associated with the siege of Lucknow, to the good scientific work he had done, and to the loyal way in which he had striven to uphold the interests and position of the medical officers of our naval and military medical services. We may now share, therefore, in the gratification which his numerous friends feel on learning that Her Majesty has been pleased to include his name in the list of New Year's Honours by conferring the dignity of a baronetcy upon him. Sir Robert Martin Craven and Sir Willoughby Francis Wade, who have received the honour of knighthood, are representative members of the profession in the provinces. The former, who was elected to the Fellowship of the Royal

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College of Surgeons of England in 1889, is a justice of the peace for Hull and late lecturer on Anatomy at the medical school in that city; the latter is a past President of the British Medical Association and has made valuable contributions to medical literature. Sir James Acheson MacCullagh, who has also been made a knight, represents Ireland in the list, he having held the office of mayor in the city of Derry. Apart from the honour conferred upon Sir Joseph Fayrer, whose work has been so varied and so important officially that he may be said to represent the whole of the profession rather than one branch of the public services, the Indian Medical Service is represented by Surgeon-Lieutenant-Colonel Samuel Haslett Browne, M.D., who receives a Companionship of the Most Eminent Order of the Indian Empire. Mr. Henry Alfred Alford Nicholls, M.D., Medical Officer of Public Institutions of the Island of Dominica, has been appointed a Companion of the Most Distinguished Order of St. Michael and St. George. To all of these gentlemen we offer our hearty congratulations upon their well-earned distinctions.

DOGS OF WAR AND SANITARY DOGS.

SUCH is the subject of an appreciative notice, signed "Écot," in the *Archives de Médecine et de Pharmacie Militaires* for December, 1895, the source of inspiration being a series of articles lately published in a Munich journal. It seems that Herr Bungartz, who is described as "a painter of animals and a man of letters," has occupied his leisure moments in training various members of the canine race with the view to the utilisation of their talents in warfare. The narrative containing the record of this new departure is said by our contemporary to be worthy of attention in every respect. Commencing with a general disquisition on the kind of dog suitable for war purposes or sanitary work, the writer next gives his views regarding the qualities of mind and body that are essential in a trainer, and finally proceeds to set forth his method of educating the selected animals. Dogs possessing a natural aptitude are susceptible of instruction in outpost duty, patrolling, and reconnaissance over ground of any degree of roughness, and can be taught to act as estafettes, and also as carriers of ammunition up to 20lb. in weight. The procedure for succouring wounded men is minutely detailed. Naturally the words of command for the same manœuvre should never be varied. Training at first should be carried out in the daytime, on a smooth surface free from obstacles, and be gradually extended until the dogs become proficient over the most difficult country during the darkest of nights. In the latter case each animal should have a lamp fixed to its forehead. When the search is ordered in the daytime a staff with a pennon is bound to the canine searcher's back in order that the wounded man may erect it by his side and thus indicate his whereabouts. By means of suitable vehicles with bicycle wheels dogs can assist in the transport of invalids, one dog, with the aid of two orderlies, being able to draw two *hors-de-combat* subjects in the lying-down position. A sanitary dog's accoutrement includes a couple of haversacks—for food, surgical dressings, &c.—which are attached to its collar, but hang well back over either flank. The animal likewise carries its own blanket, neatly folded, across its shoulders. The system to which Herr Bungartz has devoted so much time, patience, and ingenuity has now received official sanction. The inventor exhibited the prowess of his dog "Sanita" on Oct. 1st before Prince de Wied and a numerous company of civil and military notables, the wounded men being represented by infantry soldiers. After accurately obeying a number of preliminary directions the order "search for wounded" was given, and off went Sanita at the double. In a very short time she found the first subject and, galloping back to her master, conducted him to the spot. Within the space of half an hour the accomplished creature succeeded in conveying rescue parties to the eight "wounded" soldiers, although the ground where they were lying concealed was fairly difficult. The experiment was next essayed during the night, when Sanita carried an electric light, which was distinctly visible from a distance throughout her evolutions. On the whole, the exhibition is said to have been a great success.

THE DISTRIBUTION OF THE PROFESSION.

THE Medical Directory for 1896 keeps us well informed of the numerical strength of the profession and of the distribution of its huge numbers. The present issue is broader in its dimensions than its predecessors, and represents the addition of no less than 730 names to the ranks which were already so overcrowded. The best that can be said of this increase is that it is less than that of the previous year over its predecessor by 88, and that in five of the ten preceding years the numbers added to the profession by registration were more than they were last year. The actual numbers in the Directory for 1896, spread throughout the empire, are 33,320, as against 32,590 in the previous year, and they are distributed as follows, the numbers in brackets being those of the previous year for comparison:—The number of practitioners in the London list is 5835 (5742); that in the provinces, England, 14,702 (15,313, including Wales), the list for Wales being 1028 (989); that for Scotland 3264 (3224); for Ireland, 2563 (2511); registered practitioners practising abroad, 3453 (3321); naval, military, and Indian medical services, exoluding those which appear in other lists, 2451 (2452); too late list, 24 (27). From a rough glance at the obituary columns, constructed apparently with much care, it would seem that 580 members of the profession died during last year. We need not say that this indispensable volume abounds in information of all sorts for the use of the members of the medical profession. There is still room for further additions and improvements, but it is a most creditable performance.

"THE LANCET" RELIEF FUND.

IN that part of the Annus Medicus which recorded the work of the benevolent agencies of the profession we intimated last week that the tale of the year's work of the unpretentious, and, we hope, useful, Fund which is associated with the name of this journal would be told in our present issue. The usual meeting of the Almoners was held on Monday last, and the seventh annual report has now been issued, and will be found, together with the balance-sheet for 1895, on p. 50. During the course of the year loans or gifts to the total amount of £363 have been granted. The number of applications for relief was fifty-six, and in twenty-six cases assistance was afforded. These numbers show that there still exists a considerable misconception as to the precise objects and scope of the Fund. Indeed, we sometimes receive an appeal for a loan of so large a sum as £200 or even £300—amounts which, as may be seen by anyone who will take the trouble to glance at the provisions of the Fund, are quite out of the question. We, therefore, earnestly entreat those of our readers who may be asked to endorse applications to carefully peruse the application forms and to refrain from giving any testimonial except to those whose cases are such as to make them strictly eligible for the benefit of relief—i.e., registered medical practitioners, or widows or orphans of members of the profession, who, in consequence of the supervention of some unexpected exigency, which is not likely to recur, have pressing need of immediate and temporary pecuniary relief and are likely to be permanently benefited thereby. The Fund has now been in existence for seven years, and we may, perhaps, without straying far afield from the paths of good taste, venture to

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think with gratification that it has, in some—we might almost say many—cases, held out a saving hand to a brother in times of trouble and enabled him, by aid promptly rendered, to overcome his difficulties. Promptness of assistance is intended to be a prominent feature of the work of the Fund. In one urgent case (No. 304) the application was received, considered, relief granted, a cheque despatched, and a letter of acknowledgment and thanks sent off by the candidate the same day. Our "obituary" in the Annus Medicus contains, alas, the names of two distinguished surgeons who had been Almoners of this Fund—indeed, Mr. Hulke was lending us his kind assistance at the time of his death, whilst Sir William Savory had afforded us similar ready help during his Presidency. To the three present Presidents who courteously give us so willingly and so ungrudgingly the benefit of their services as our colleagues in the Almonry of the Fund we tender our heartfelt thanks.

V. V. V.

WE have received a prospectus which for barefaced impudence and for an intimate knowledge of the idiocy of the British public when anything connected with its health is concerned is unrivalled even by such masterpieces of puffery as the notices of Pink Pills or Mother Seigel's Syrup. A company is being formed to take from the vendor, one George E. Dixon, "M.D.," a proprietary medicine called the Vaccine Virus Vanquisher. The reasons set forth in the prospectus for assuming that this medicine will "go" are very true, if somewhat uncomplimentary to the intelligence of the average British subject. Thus we are told "there are about one million vaccinations performed annually in the United Kingdom. A large percentage of these are children whose mothers are very fearful of serious results. These mothers frequently ask the doctor for something to lessen the dangers of vaccination, but scarcely ever receive anything, being told that it is simply 'vaccination,' and that there is no cause for alarm. When they are informed that they can give V.V.V. to their children at the time they are vaccinated, and thus avoid all the dangers of vaccination, it is reasonable to expect that the greater number will avail themselves of this safeguard. In addition to this field, which numbers, as has been said, about a million annually, there are several millions of persons, both children and adults, suffering with chronic ailments of the skin, eyes, hair, internal organs, &c., many of whom are satisfied that their diseases were originally contracted through vaccination, and, as most of them have tried doctors and patent medicines year after year without success, it is reasonable to suppose that they will seek relief in V.V.V., because they have never before seen or heard of a remedy which appeals to them as aiming at the correct origin of their ailments. With regard to the efficacy of the remedy, the vendor states that it has been well tried by him in his practice for several years for this class of diseases with marked success; that the medicine as prepared is very palatable, and will not be resented by children or infants. The vendor further states that, when given to persons who are being vaccinated, it neutralises and removes all the inflammatory materials and poisonous germs which would otherwise enter the remotest parts of the system and remain there, possibly to appear only after many years." "The vendor states." We daresay he does, and we would remind our readers of the lady litigant who was wont to conduct her case in person and who upon one occasion remarked, "I suppose, my Lord, it would not be considered respectful to your Lordship if I were to call this witness a liar?" It is notoriously impossible to prove a negative, so we cannot disprove the vendor's statements, but we challenge him to prove them. There is one other statement in the prospectus which we must quote. "The vendor, to show his confidence in the future of the company, has fixed the whole of his capital in fully paid up shares." The words "to show his confidence" are surely unfortunately chosen, for they are so intimately connected with another form of commercial enterprise, which, however, does not flourish under the patronage of a Government stamp. We make no doubt that this company will flourish, for the number of fools in the world is incalculable, and they are always more ready to pay 11*s.* for half a grain of perchloride of mercury in a pint of water, or 1*s.* 1½*d.* for about a halfpennyworth of compound aloes pills, than to consult a medical man. Nor have we any pity for such idiots; but we should like to see the swindling proprietors of proprietary medicines taxed to the extent of some 70 per cent. of their earnings. If the Strand barbers could be punished, why not the great army of quacks? The simplest way to stop the abuse would be to make all *proprietary* medicines *patent* medicines, so that a complete description of the invention or secret could be readily obtainable by the public. This publicity obtains under the Patents Act of 1883. We have procured a bottle of V.V.V., accompanied by a pamphlet, and from the latter we learn: (1) that since vaccination has been introduced the death-rate from syphilis in children under one year has markedly increased; (2) that no cure has yet been found except V.V.V. (3) "that none of the syphilis in babies was inherited from their parents, it therefore must be contracted through vaccination"; and (4) that of 104 patients vaccinated from a healthy child previously vaccinated with—the pamphlet does not say what—more than half showed symptoms of syphilis or phthisis or liver or kidney complaint. We have no hesitation in saying that this pamphlet is a wicked production. It trades on people's fears and is full of, at all events, suppressions of truth. It is the duty of the Legislature to put a stop to the dissemination of such pernicious trash. We have submitted the precious stuff to analytical examination and the results of our analysis were as follows:—Total solid matters, chiefly sugar, 9·4 per cent., yielding on incineration traces of ash. The residue on evaporation burnt with an intensely green flame due to boracic acid. Chloroform extracted a marked quantity of caffeine, as well as also a bright yellow colouring substance, which behaved like an aniline dye, turning to pink on adding ammonia and resuming its original golden-yellow colour on the addition of acid. The liquid was turbid, and contained distinct traces of tannin substances, reacting with certain reagents much as a weak solution of tea would do, or as a weak decoction of the leaves of most plants. We could not trace any appreciable quantity of alcohol.

DEATH UNDER PENTAL.

PENTAL, or more correctly trimethylethylene, the modern equivalent of amylene, has recently been used somewhat extensively, both abroad and in this country, in dental practice. Amylene was employed in 1856, and besides giving it to the lower animals Snow used it for 238 patients. Of these two died, but it is by no means clear that their death was due to amylene. Dastre, writing in 1890, said its use had then been discontinued. However, Holländer, of Halle, revived a body with similar composition—pental (C_5H_{10})—in 1893. Von Mering had as early as 1887 drawn attention to what he regarded as its claims upon public favour, and Breuer and Lindner employed it for brief operations in 1892. Chalalb used it in the clinic of Professor Assaky, but did not share in the confident views expressed in its favour by Holländer, Hägler, and Philipp of Berlin. Professor Wood, assisted by Dr. Cerna, undertook an experimental research as to the physiological behaviour of pental and warned against its use, since, according to their view, it was a dangerous cardiac depressant. Rüth, as late as 1894, came to the opposite conclusion, asserting pental to be

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a safer agent than chloroform and possessing many advantages over ordinary laughing-gas. It has not, however, been extensively employed, except in dental practice. Mr. Constant, after experience of some hundreds of cases, was satisfied with its action, but did not speak very enthusiastically about it. In 1892 a death was reported as having occurred during the employment of pental, but the evidence, so far as could be elicited, did not conclusively prove that the anæsthetic was to blame in the case. In all these observers' hands the danger, such as was admitted, appears to have been that incurred by heart failure, although Rüth has expressly stated that respiration fails before the heart's action ceases. In the following case the patient was a woman aged twenty-three. She attended at the Dental Hospital in Devonshire-street, Chorlton-on-Medlock, for the purpose of having several teeth extracted. She was examined by the medical attendant who administers anæsthetics at that hospital, and was, in his opinion, in a fit state to undergo the operation and to take pental. This he administered, and she rapidly passed under its influence. After the extraction of five teeth her respiration ceased, and none of the means adopted to restore her succeeded. The dental student who had operated stated that there was no particular difficulty in the operation. Pental had been used by the anæsthetist for many patients, and he stated that he had never previously met with any difficulty or danger. We are not told whether the patient was at the moment of extracting the fifth tooth resuming consciousness. If so, possibly the mechanism of death was similar to what so often occurs under chloroform. On the other hand, Holländer in his first paper spoke of his patients being analgesic rather than unconscious, as if there were no danger of reflex shock under this anæsthetic. This, of course, is a point of great importance. At present pental is on its trial, and the fullest information concerning the action of the drug is desirable; every accident should be most carefully reported to see how far we can trust the favourable opinions so freely uttered about this substance, and how far Professor Wood is correct in his warning that "pental will probably prove a most dangerous anæsthetic."

THE GENERAL MEDICAL COUNCIL AND THE DIRECT REPRESENTATION OF IRELAND.

OWING to the regretted death of Dr. G. H. Kidd a vacancy has occurred in the direct representation of Ireland on the General Medical Council. The names of several candidates have already been prominently brought to our notice—among others those of Dr. William Thomson and Dr. Archibald Jacob of Dublin, Professor Cuming of Belfast, Mr. G. E. J. Greene of Ferns, and Dr. Hercules MacDonnell of Dundalk. All these gentlemen would appear to have the necessary qualifications for success in the office they are seeking, but in all probability one of the first three will be chosen. The number of Irish representatives on the General Medical Council is seven, nominated by various bodies, the late Dr. Kidd having been the nominee of the Irish medical practitioners. All the Irish representatives are Dublin men—a fact which seems to us to give Dublin an undue advantage over the rest of Ireland. Dr. Thomson and Dr. Jacob are both Dublin men. The former is Vice-President of the Royal College of Surgeons and general secretary to the Royal Academy of Medicine in Ireland. Dr. Jacob is an earnest advocate of the claims of the provincial practitioner, and, as he himself says in his election address, and he ought to know, "Who in Ireland understands the business of the Medical Council better? Who knows the Irish medical practitioner as a student, a private practitioner, or a public officer as intimately? Who has proved greater capability of giving public expression to his wishes?"—and so on. Dr. Thomson is a consulting surgeon of eminence in Dublin, and Professor Cuming is recognised as the leading consulting physician of Ulster. He has been asked to stand by the North of Ireland Branch of the British Medical Association and by the Ulster Medical Society, and is anxious that the grievances of dispensary medical officers should be redressed. We do not presume to offer any advice in a matter which concerns Irish medical men almost solely, but we may, at any rate, point out that for Ireland to possess at least one representative outside the capital on the General Medical Council would be, at any rate, an act of justice to the remainder of the country.

THE INCOMES OF PATIENTS AND MEDICAL CHARGES.

A CORRESPONDENT seeks our opinion on the rules by which to judge a patient's income and the right of a medical man to assess it at any rate at which he may have cause, real or imaginary, to estimate it. Our opinion on such matters must necessarily be somewhat vague and general, but there are certain rules by which a medical man is guided in charging his patients. We should be sorry to see him become a sort of assessor of income-tax. We should disapprove as alike impossible and undignified any minute scrutiny into the particulars of a patient's means. The amount of his rent is a guide to his position, but only a rough one, and one not to be made too much of. On the whole a medical man does best to be guided by a sense of the value of his own services to the patient, without attempting to differentiate him from other patients and making a separate tariff for each. A man with a high rent may be practically much less able to pay than one with half the rent, and there are the greatest objections—which we cannot specify here—to a medical man speculating on the income of his patients. Questions of distance, trouble, night work, and anxiety are all fair elements for consideration. But the question of particular income does not arise save to check any tendency to undercharge or overcharge, by either of which a medical man often does himself much harm.

ORGANISATION IN SCIENCE.

AT one of the full-dress *séances* of the International Medical Congress which met last Easter at Rome, Professor Michael Foster addressed a profoundly interested audience on Organisation in Science as an Aid to Scientific Results. He carried all his hearers with him when he dwelt on the waste of time, energy, and *matériel* incurred by the lack of combination in research, particularly biological research, by which many an able inquirer finds he has consumed precious months—even years—of his life in re-traversing "ground" already "beaten" by inquirers not less able, whose worth, however, has been hidden away in archives of which he never heard, or which, even having heard of them, he has found it difficult, if not impossible, to reach. Another evil arising from this want of combination is to be found in the frequent controversies as to priority in this or that finding or generalisation, controversies not seldom resolving themselves into this—namely, that neither claimant has been cognisant of his contemporary's work, and that both have arrived independently at similar, if not identical, conclusions. A case in illustration of this latter "conflict of claims" has lately come before a French tribunal, which decided that Professor Lombroso, in his well-known treatise on "Grafologia," had exceeded the bounds of legitimate citation in the use he made of M. Crepieu-Jamin's work on the same theme. The *Corriere della Sera* of Milan contains Professor Lombroso's vindication of his procedure, from which it would appear that he

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had been engaged for years on similar inquiries to those of the French writer, that he had quoted the latter wherever he had original matter to produce, and that he had ceased to quote him wherever he (Professor Lombroso himself) had reached the same conclusion independently. Now, such collisions of independent inquirers, and the consequent disputes as to priority, culminating (as in this case) in actual litigation, would be avoided by the organisation suggested by Professor Foster. To be effective, however, such an organisation should be on a comprehensively international scale, involving, no doubt, a large initial expenditure, but expenditure amply compensated by the great advantage which biological and medical science would reap from economy of energy and harmony of results. Individual ambition, as in all organisations, might have to give way; but then it would do so in the interests of truth, to which no genuine student of nature would grudge the personal sacrifice.

CHRISTMAS AT THE HOSPITALS.

AT most of the institutions where pain and suffering are ministered to special efforts are made at Christmastide, on the part of the medical staff, nurses, and friends, to brighten the lot of those who are compelled to spend their Christmas from home by reason of sickness and disease, and in previous years we have given an account of the entertainments provided for this purpose. By the courtesy of the secretaries of various hospitals we have received accounts of these festivities this year, but the enormous pressure on our space prevents us, much to our regret, from doing more than mentioning the names of the institutions where entertainments were provided. Amongst others we may mention: St. George's Hospital, King's College Hospital, the London Hospital, St. Mary's Hospital, St. Thomas's Hospital, the Seamen's Hospital, the German Hospital, the Hôpital et Dispensaire Français, the Great Northern Hospital, the Victoria Hospital for Children, and the Great Ormond-street Children's Hospital.

MOULDERS OF MEN.

THE year just closed has been a memorable one for education and the momentous interests bound up with it. Besides the perennial controversy as to the teaching of religion and the conflicting claims of Board or denominational schools, we have had quite lately the Congress of Headmasters at Eton and the commemorations, centenary and bicentenary, of two commanding figures in their profession—James Melvin and Richard Busby. Of these, the former, as Rector of Aberdeen Grammar School, was for many years the "moulder," if not the "maker," of relays of young aspirants to the professions—medical even more than legal or theological. "Grim Pluto," as he used to be called, was impatient of anything less than "thorough," therein resembling Dr. Arnold of Rugby, whose insistance on that condition was almost a fanaticism. "Accuracy," as Helps has finely put it, "is the prose of truth," and Melvin's enforcement of it in every detail of the day's work so impressed the young minds committed to him that in after-life, when fame and fortune were their portion, they have loyally declared that to Melvin and his teaching they owed whatever success they had achieved. The long list of names associated with the celebration of his centenary was in itself the tribute of which he would have been most proud—proving as they did that, if the Ultima Thule of learning is, as she has often been called, an "arida nutrix," she has been, under preceptors such as he, a "nutrix leonum." In a yet more eminent degree, as presiding over a higher and more historical school, Richard Busby deserved and obtained similar recognition. There is, indeed, no walk in the public life of England to which Westminster has not contributed men of light and leading, and not a few of the most brilliant and commanding of these were "moulded," if not "made," by Busby. Himself a scholar, as was also James Melvin, who realised in himself the accuracy he lived to inculcate, he made "loyalty to truth" a religion with the young minds he manipulated, teaching them that best of all knowledge — "to know what knowledge of a subject means" — and making exactitude in detail, in conception, and in statement so much of a pleasure that it became a "second nature" with them, a standard to which, in their respective careers, they almost unconsciously strove to conform. As was beautifully said in the finely conceived and felicitously classical prologue to the last representation of the "Adelphi"—

> "Vitam is vixit non sibi
> At in qua puer eductust huic vixit Domo."

And again—

> "Utroeque habuit favitores, ut cui dignius
> Implere visumst munus quam, quod sit sibi
> Magis in rem, id agere."

Such was Richard Busby's ideal of life—in itself a precious exemplar amd bequest to his school. The tradition of his order, that a headmaster shall be a clergyman, may have had its special justification in times past; but, as a professional critic of the late Congress at Eton reminds us, there are serious disadvantages in making that an indispensable condition of office. In these days, when science has asserted her claims in our great public schools, why should not a headmaster be chosen, *ceteris paribus*, for his proficiency in other fields of culture besides theology? Why, for instance, should not a Doctorate in Science such as our universities bestow be accepted as a qualification, when conjoined with the necessary scholarship, equally with a Doctorate in Divinity? The administration of a public school on the scale of Westminster, or Eton, or Harrow, must often bring scientific knowledge into play, especially in those departments which constitute the basis of medicine or hygiene. How many a disastrous epidemic might have been averted, and the fair fame of the school preserved, if its headmaster had possessed, in addition to his special qualifications, such a proficiency in science as Cambridge, for example, so admirably gives? Circumstances often beset a great public seminary in which a knowledge of the "corpus-sanum" and the conditions of its "sanitas" is of the greatest importance on the part of its head; but consuetudinary law postpones the claims of a master so qualified to those of one who has been admitted to holy orders, and whose initiation into the conditions of health is simply *nil*. There is room for reform in this direction—reform the practical recognition of which will be a "title of honour" to the twentieth century, if not to the nineteenth, whose course is so nearly run.

ANTIVIVISECTIONISTS AND HOSPITALS.

CANON WILBERFORCE continues to insinuate that hospitals are fields for experiments upon patients. He says:[1] "I have been hoping that some recognised leader of the honourable medical profession would have authoritatively dissipated the feeling of uneasiness to which ..... I drew attention." We are unable to see how this feeling of uneasiness can be dissipated for Canon Wilberforce. If we denied that experiments are performed in hospitals in London he probably would not believe us. Can he produce any patient who has been experimented on? Of course he would say, "No, for they are all dead." Among whom does this feeling of uneasiness exist? Apparently not among the poor, for the hospitals are always full and the out-patient departments are thronged. At St. Bartholomew's Hospital, for instance, in 1894 there

[1] The Times, Dec. 29th, 1895.

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were in round numbers 6000 in-patients and 161,000 out-patients, and at this hospital, according to the 1894 edition of "Experiments on Hospital Patients," from which Canon Wilberforce quotes, there are fifteen vivisectionists on the staff or at work in its laboratories. This does not look as if there were much uneasiness among the class for whose benefit the hospital in question was founded. Canon Wilberforce means, we believe, to be sincere, though he is hopelessly wrong-headed. Let him substantiate his innuendoes, not by references ten years old, but by some modern instances. The letter of "S. C. S.," in the *Times* of Dec. 27th, 1895, though anonymous, wants a better answer than Canon Wilberforce's of the 29th. "S. C. S." clearly shows that Canon Wilberforce's deductions are absolutely unfounded and puts him in the dilemma of either not having verified his references or, if he did so, of wilful misrepresentation.

SOME CLINICAL ASPECTS OF THE COAGULABILITY OF THE BLOOD.

OUR attention has been called to an excellent and suggestive paper by Surgeon-Lieutenant L. Rogers, M.B., B.S., F.R.C.S., of the Indian Medical Service, which was read before the late Indian Medical Congress and has been reproduced in the pages of the *Indian Lancet* of the 16th ult. The paper is on some clinical aspects of the coagulability of the blood. It appears that the writer had an opportunity of studying, at Netley, Professor Wright's method of estimating the coagulability of the blood and of clinically applying it. The method introduced by Professor Wright is a very simple one. It consists in pricking the finger-tip, as in the use of Gowers' hæmocytometer, and drawing up a small quantity of blood into a fine tube of uniform calibre. From four to six tubes are filled at noted intervals. By blowing down these at given moments the shortest time in which the blood is found to be clotted, so that it cannot be blown out of the tube, will be the coagulation time. With a little practice it can be determined to within 15 sec. or even 5 sec. The normal time of a healthy person is usually between 2½ min. and 5 min., varying slightly with the temperature and the time of day, especially in relation to meals, being shorter after a full meal and longer after a fast. Surgeon-Lieutenant Rogers's own time was very constantly between 2 min. 15 sec. and 2 min. 20 sec. This officer then goes on to consider and describe the methods of increasing and decreasing the coagulation of the intravascular blood as determined by numerous observations by himself and others, and the results are both interesting and instructive. He passes in review the influence of calcium chloride and the inhalation of carbonic acid gas diluted with atmospheric air by a Kipp's apparatus, or an india-rubber bag, in increasing the coagulability of the blood, and records some interesting experimental observations. With calcium chloride taken in fifteen-grain doses he found, for example, that his own coagulation time could be reduced from 5¼ min. to 1¾ min. As a result of his experiments on coagulation with various drugs usually considered to have hæmostatic properties he shows that several of these, such as gallic acid, ergotine (except in the uterine form of hæmorrhage), and potassium iodide, have no effect. The substances which reduce or retard coagulability are next considered, with the result that some interesting observations are recorded in regard to numerous agents tested in this respect, and a suggestive allusion is made to the probable explanation of the benefit derived from the administration of oxygen in some cases of pneumonia, and that of alcohol in causing a retardation of coagulation, a fact to be borne in mind in its administration during or after hæmorrhage. As regards the practical clinical application of the results of recent researches in coagulation, the writer alludes to the physiological styptic properties of calcium chloride applied locally, and to its use internally in hæmorrhagic conditions, such as severe hæmoptysis, in some cases of which he successfully gave it in fifteen-grain doses, and he points out that its use is indicated in hæmatemesis and in vesical hæmorrhage. As regards hæmophilia, it is remarked that the lack of calcium chloride in the blood is probably a very important pathological feature of the disease, and reference is made to the use of this agent and of carbonic acid gas in the treatment of this condition. His experiments with potassium iodide and low diet in their effect on coagulation do not tend to support the present treatment of certain forms of aneurysm except in so far as these reduce the force of the circulation, whereas he considers that an increased coagulability can be induced by the methods described—viz., by the administration of carbonic acid and the use of calcium chloride. The administration of the latter agent by the mouth is also of service in safe-guarding the system against the risk of hæmorrhage in certain operations. He suggests the use of vegetable acids or oxygen in cases of threatened or actual thrombosis after typhoid fever and in other morbid states attended with thromboses. We have said enough, however, we hope, to induce our readers to peruse Surgeon-Lieutenant Rogers's suggestive paper for themselves.

DEATHS UNDER ANÆSTHETICS.

Two deaths have recently been reported from Guy's Hospital as having occurred under an anæsthetic. The notes before us are unfortunately very scanty, although information was invited from the hospital authorities. A married woman aged twenty-six was admitted into Guy's Hospital on Nov. 13th, 1895, suffering from cystitis. On Dec. 2nd an operation was to be performed upon her for the relief of the condition which occasioned the bladder trouble, and she was anæsthetised by one of the house surgeons, Mr. H. W. Beach. The anæsthetic selected was ether, but nitrous oxide gas was administered first, and just as this was being changed for ether the heart's action ceased. No explanation of the death is suggested except that it was not due to respiratory spasm but to failure of respiration and circulation. As Mr. Beach remarked at the inquest, death at this stage of the administration of nitrous oxide gas and ether is extremely rare. Without a fuller record of the sequence of events it is quite futile to attempt to explain so extraordinary an occurrence. When so many persons pin their faith to the almost absolute safety of this anæsthetic, and this method of using it, it is startling to find an inexplicable death occurring in the hands of a careful and experienced hospital officer in a large London hospital, and this certainly emphasises what the events of the past few years have been impressing upon us—viz., that we know very little about the causation of death by anæsthetics. We should welcome a fuller and more detailed account of this fatality. The second death was that of a domestic servant aged twenty. She was suffering from enlarged tonsils, and the glands in her neck were also affected. On admission into Guy's Hospital her condition was considered to be very unsatisfactory, but on Nov. 26th, 1895, after she had been carefully prepared for the operation, Mr. C. H. Bryant, one of the house surgeons, administered chloroform. Two minutes after the commencement of the operation respiration ceased. Artificial respiration was practised, and the patient rallied. The operation was then resumed, but breathing again ceased, and all restorative measures failed to restore life. Many surgeons object to the employment of ether for operations which involve removal of adenomatous tumours and tonsillotomy, but whether such objection should outweigh the manifest advantage of ether for persons whose

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vitality is low can only be decided in each particular case. The sudden cessation of breathing, with its resumption after artificial respiration, strongly suggests poisoning of the respiratory centre, and whether it was wise to continue the operation after so grave a symptom is at least open to question. It would be instructive to learn whether any further employment of chloroform was made, or whether the second failure of respiration was one of the "late effects" which have attracted the attention of Chalot.

CONTAGION IN THE DAIRY.

IN order to ensure the local extinction of infectious disease it is not sufficient to apply any one routine formula of treatment. Sanitary science is not, however, by any means a subject of purely technical character, but one which is to a large extent comprehensible by the general intelligence. For this reason the necessary safeguards, which are its practical evidences, must also be numbered among the duties of the private citizen. It follows that a milk-dealer convicted a few days ago at the Thames Police-court was liable for an offence in selling milk while his household premises, used also for trading purposes, were contaminated by diphtheria. The defence in this case was that of ignorance, and as such was insufficient to justify acquittal. It is, however, suggestive as bearing on other and related considerations. The disease was duly notified by a practitioner. It proved fatal in two days. Six days subsequently disinfection was carried out. In the meantime the milk trade went on, the salesman being, as alleged, ignorant as to what this implied to his customers. There are instances, of course, and these not few, in which the seclusion of the infected and the pursuit of a calling may be possible in the same establishment at the same time. The present case was evidently not of such a kind, yet the patient was not removed, and the dealer did not know that he should suspend his business. It is, to our mind, somewhat surprising that he should have been without instruction in a matter so important after a visit from the sanitary officer. Surely the work of inspection, though it cannot supersede the demand of the law, is understood to provide for such instruction where occasion requires.

DIPHTHERIA MORTALITY AND ANTI-DIPHTHERIA SERUM IN FRANCE.

CERTAIN facts and statistics which have been communicated to the Académie de Médecine in Paris by M. Henri Monod, the Director of the Public Health Department of France, will have interest for all those who desire information as to the use of antitoxic serum as a means of staying the ravages of, and preventing death from, diphtheria. The system for the registration of deaths is still very imperfect in France, and by reason of this M. Monod is restricted, as regards mortality returns, to 108 towns of 20,000 inhabitants and over; but this gives him a population of 8,150,000 to deal with, although it is limited to that which is practically urban in character. As in England, so in France, diphtheria is a rural as well as an urban disease. In the 108 towns of France which are in question the mean number of deaths from diphtheria in the first six months of the seven years 1888–94 was 2627. In the three months November, 1894, to January, 1895, the Institut Pasteur distributed over 50,000 supplies of anti-diphtheria serum, and this supply, which was maintained, was made available not only for the well-to-do but also for those who, by reason of poverty, were compelled to receive it by means of gratuitous distribution. Now in the first six months of 1895 the number of deaths from diphtheria in the same 108 towns was only 904, or a diminution at the rate of 65·6 per cent. The rate of diminution month by month went on almost uniformly from one of 56·2 per cent. for the month of January to 47·5 per cent. for the month of June. On these data alone a saving of 15,000 lives would have been effected during the first half of 1895. M. Monod, however, deals with the matter as an affair of statistics, and he does not profess to enter into the question whether the climatic and other unknown causes which influence the power of diphtheria for spread and for death were less operative in the first six months of 1895 than in the corresponding months of the seven antecedent years. Such conditions may have influenced the result to some extent; but it seems impossible to attribute solely to an unknown cause such a diminution in death as he shows in his paper to have gone on synchronously with the widespread use of the serum. The facts he quotes are well worthy of consideration by those who have to treat diphtheria either in hospitals or in the homes of the people in this country.

"SHOULD A MEDICAL MAN MARRY?"

UNDER this heading *La Loire Médicale* has a rather curious article in which this often discussed question is treated in a decidedly novel manner. There is no doubt that in the Middle Ages medical practitioners were condemned to celibacy, says the writer in our contemporary, but during the seventeenth century this monkish rule was relaxed, and they were permitted to marry. A disciple of Æsculapius, desirous of domestic bliss, could then take unto himself a wife, it is true, but only think of the imprudence of it! Such, at least, was the view taken by a worthy named John Jacob Treyling when inditing his thesis for the university of Ingolstadt in answer to the foregoing query. The passage runs as follows: "Accidit ad hoc viro præsertim medico, quod si juvenculam sibi junxerit, hancque formosam, habeat quod metuat illud Epicteti dicentis: Qui formosam duxerit, habebit communem. Cum enim medicus densâ praxi obrutus, nec domus nec uxoris custos esse valeat, quid? Si hæc interim hospitalis sit et Dianam æmulata cornificâ metamorphosi maritum cervinâ superbum coronâ in Acteonem transformat, heredesque ipse afferat, non nisi adamatico cum ipso sanguine conjunctos? Ita ut non semel saltem tacete secum murmurare querelus debeat: Haud ego mihi uxorem duxi, tulit alter amorem: sic vos non vobis." We fear the worthy John Jacob's Latin savours over-much of the canine variety, but nevertheless his meaning is intelligible. Whatever may be said of his argument as a whole, there is at all events little danger in these days of professional overcrowding that a medical man should become "obrutus densâ praxi"!

THE BACILLUS OF SYPHILIS.

THE whole etiological and pathological history of syphilis compels the conclusion that its virus, like that of tubercle and leprosy, is an organised one, and that bacteriology will one day reveal the microbe capable of such distinctive and permanent effects upon the human body. Lustgarten's discovery of a bacillus in the secretions of syphilitic ulcers, and even in tertiary lesions, has not been sufficiently widely confirmed to be regarded as solving the problem. It remains to be seen whether a similar fate awaits the latest alleged discovery of the syphilitic bacillus, which is described at length, with much additional speculation as to the bearings of the discovery, in a monograph by Dr. van Niessen of Wiesbaden.[1] The author is not a working bacteriologist, but, as he tells us, he is a neurologist, and it was the study of the immense part played by syphilis in nervous diseases which seems to have impelled him to make the attempt to discover the contagium vivum. Whatever may be thought of his work—and there is no doubt that it

[1] Der Syphilis-Bacillus. With 4 plates; pp. 92. Wiesbaden: J. F. Bergmann. 1896.

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will be subjected to criticism by bacteriological experts—there is no denying that he has carried it on with enthusiasm and pushed it to its extreme conclusions. It is not easy to do full justice to his work in a brief notice; but it may suffice to say that in the examination of the blood of syphilitic subjects he found a micro-organism the characters of which seem to be of a most variable kind, although the main form is that of a bacillus, or, rather, diplo-bacillus, for it tends to occur in couples in the form of the letter V. But what is more singular still is that this organism does not persist in the schizomycetic group, but is capable of developing mycelial threads and spores which are characteristic of the hyphomycetes. Herein, we fear, will be found the initial difficulty to the acceptance of the bacillus as an entity; but it does not seem to strike Dr. van Niessen in that light, for he describes cultivations in various media, and points out that it is aerobic and liquefies gelatine. The best medium for its growth is blood serum. He next describes some experimental inoculations on the rabbit's ear by means of these cultures, which resulted in the appearance on the ninth day of a papule, the induration of which was suggestive. He further made observations upon the behaviour of the blood in presence of the bacilli, and found that when the latter—taken from a pure culture—were introduced into a drop of blood, and observations carried on from day to day, the bacilli were taken up by leucocytes, surrounded by vesicular masses of protoplasm, but never destroyed or absorbed, as in phagocytosis. Herein he finds an explanation of the persistence of the syphilitic virus and of the capability of its transmission from parent to offspring. He regards, therefore, syphilis as an infectious disease which can only be cured by measures not yet in contemplation, and discusses with an elaboration hardly justified by facts the application of antitoxin as the sole method open to procure immunity. Surely the premisses must be proved before such a conclusion is arrived at.

THE LATE COUNT TAAFFE

COUNT TAAFFE, the late President of the Austrian Ministry, was an Irish peer, being eleventh Viscount Taaffe and also Baron of Ballymote. His predecessor, the sixth viscount, gained distinction in the military service of Austria, and the family has ever since been domiciled in that country. Similar examples of voluntary expatriation are afforded by the families of the Earl of Newburgh and Baron Fairfax of Cameron in the peerage of Scotland, the former having been long settled in Rome and the latter in America. Some particulars of Count Taaffe's last illness have just been published by Professors Albert and Nothnagel. For the last twenty-five years he was a sufferer from chronic enteritis, which caused him terrible pain. Recovery was impossible, for he would not resign himself to the absolute repose enjoined by his medical advisers, and two years ago a chronic affection of the cardiac muscle was discovered. In July of last year the action of the heart became irregular, and some sequelæ occurred, such as dropsy. In October a thrombus obstructed the right femoral artery, causing gangrene of the leg; his appetite failed, and his life was prolonged only by the use of stimulants.

THE opening lecture of the session at the Brompton Hospital for Consumption and Diseases of the Chest will be delivered by Dr. J. E. Pollock on Wednesday, Jan. 15th, at 4 P.M. The subject of the lecture will be Prognosis in Phthisis. We are requested to state that the course of lectures is open to all qualified members of the medical profession as well as to the students of the hospital.

THE authorities of Westminster Hospital propose to place a brass in the hospital chapel in memory of Nurse Margaret Allen, who died in the Luton Hospital from typhoid fever, which she contracted while acting as a nurse in the recent epidemic.

SIR MATTHEW WHITE RIDLEY will reappoint the committee which sat, upon Mr. Asquith's appointment, last session to inquire into the questions arising out of dangerous trades.

PROFESSOR EDWIN RAY LANKESTER has been appointed a vice-president of the Royal Society.

THE LANCET RELIEF FUND.

SEVENTH ANNUAL REPORT OF THE ALMONERS.

THE LANCET Relief Fund, which has for its Almoners the President of the Royal College of Physicians of London (Sir J. RUSSELL REYNOLDS, Bart., M.D., F.R.S.), the President of the Royal College of Surgeons of England (Mr. CHRISTOPHER HEATH), the President of the General Medical Council (Sir RICHARD QUAIN, Bart., M.D., F.R.S.), Mr. THOMAS WAKLEY, F.R.C.S., and Mr. THOMAS WAKLEY, jun., L.R.C.P. Lond., with Sir HENRY PITMAN, M.D., F.R.C.P., as Honorary Auditor, came into operation on the 1st of February, 1889.

In presenting the seventh annual report the Almoners think it well again to direct attention to the objects for which the Fund was established.

The Fund is sustained solely by the Proprietors of THE LANCET, who provide every January the sum of at least £300, and is administered free of cost, with the object of affording immediate pecuniary assistance to registered medical practitioners, or to the widows or orphans of members of the profession in cases of distress and emergency, by the grant of money by way of loans free of interest, or gifts, as the circumstances of the various cases may require.

When the Fund was inaugurated considerable misapprehension existed as to the precise objects for which it had been established; and, as a result, the majority of the earlier applications, being cases of *chronic* distress, and not coming, therefore, under the designation of *emergency*, could not be entertained. Attention was called to this fact in THE LANCET of Feb. 16th, 1889, in the following words:—

"We are requested by the Almoners to state that, from the character of a number of the applications received, both personally and by letter, for relief, it is evident that in many cases the object for which this Fund has been established is not quite clearly understood; and, if relief had been afforded in the cases of those who suffer from chronic distress, the Fund would have been completely exhausted within the first few days of its existence. They would therefore be greatly obliged if those readers of THE LANCET who may be asked to endorse applications would carefully peruse the Application Form and explain the precise object of the Fund to those applicants whose cases do not seem to come within the scope of the purpose for which the Fund has been established, which is to afford prompt aid to registered medical practitioners, or to the widows or orphans of members of the profession, who, in

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consequence of the supervention of some unexpected exigency, which is not likely to recur, have pressing need of immediate and temporary pecuniary relief"—and who, it may once more be pointed out, are likely to be permanently benefited thereby.

The balance in hand at the end of 1894 amounted to the sum of £110 4*s*. On Jan. 2nd, 1895, the Proprietors of THE LANCET placed to the credit of the Fund the sum of £300. During the course of the year repayments of loans to the amount of £31 have been made. The sum of £363 has been granted in relief either by way of loan or of gift, leaving a balance of £77 19*s*. 10*d*. as per bank pass-book.

There have been considered altogether during the twelve months ending Dec. 31st, 1895, 56 applications for relief (the number the previous year having been 56). In 26 cases assistance was afforded, either as a loan or as a gift, according to the request of the applicant, the amounts of the grants ranging this year from £5 to £25.

In some cases of extreme urgency the application has been considered by the Almoners, the grant sanctioned, and a cheque for the amount forwarded to the applicant on the same day the application was received.

The following are extracts from a few letters received from some of the recipients of the Fund:—

270.—"Will you please thank the Almoners of THE LANCET Relief Fund for their great kindness in sending us £10. I cannot say how grateful we are, for without it we could not have kept a home."

275.—"I shall feel obliged if you will convey to the Almoners of the Fund my compliments and thanks for their kind help at a critical time."

276.—"Kindly inform the Almoners that I feel grateful for the cheque of £10 they have sent me this day, which I shall have pleasure in returning on the dates given in the agreement. I have also to thank you for your prompt attention in complying with my request."

285.—"I beg to acknowledge your letter and enclosed cheque, value £10. I hope and trust that it may be the means of Mr. ——— being able to make a fresh start. He will of course write to you himself."

285.—"I have read your letter to Dr. ——— and received the cheque for £10, the receipt for which I enclose. Accept my very sincere thanks for the kindness with which the Almoners have considered my case. I assure them of my gratitude, and I trust it will be a harbinger of better health and prospects. What I have suffered physically and mentally is a retrospect to be avoided, and if my impecuniousness be still further removed the paralysing sense of hopelessness which has hung over me like a pall will, I trust, dispel. Again thanking you for your generous gift, ..."

287.—"I am in receipt of your letter and enclosed cheque for £10, and I beg to return my most earnest thanks to the Almoners for their kindness. They little know what a help and relief it is to me."

293.—"I cannot express to you in words how thankful I am to such kind friends. The cheque will truly keep me. In all my sorrow I feel that God is sustaining me. Again thanking you for your great kindness, ..."

295.—"I thank you most heartily for your letter of to-day's date. The gift that has been so handsomely granted to Mrs. ——— will go a long way, I have no doubt, towards establishing her in some small business."

298.—"I shall be much obliged if you will convey to the Almoners my sincere thanks for their valuable aid at a critical time."

302.—"I beg to acknowledge receipt of your letter with enclosed cheque for £25, for which please accept my grateful thanks. It will prove of the greatest assistance to me and my family."

304.—"9 P.M.: Cheque for £15 safely to hand. Our heartfelt thanks to the Almoners for their great and most prompt assistance."

(Signed)

J. RUSSELL REYNOLDS. RICHARD QUAIN.
CHRISTOPHER HEATH. THOMAS WAKLEY, Jun.
THOMAS WAKLEY.

Statement of Accounts for the Year ending Dec. 31st, 1895.

DR.

	£	*s.*	*d.*
To Balance at Bank, Jan. 1st, 1895	110	4	0
,, Proprietors of THE LANCET	300	0	0
,, Repayment of Loans:—			
Case No. 186 ... ... £5 0 0			
,, 212 ... ... 2 10 0			
,, 52 ... ... 1 0 0			
,, 278 ... ... 5 0 0			
,, 276 ... ... 2 10 0			
,, 247 ... ... 3 0 0			
,, ,, ... 3 0 0			
,, ,, ... 3 0 0			
,, ,, ... 3 0 0			
,, ,, ... 3 0 0			
	31	0	0
	£441	4	0
To Balance at Bank	£77	19	10

CR.

	£	*s.*	*d.*	£	*s.*	*d.*
By Loans:—						
Case No. 276	10	0	0			
,, 278	20	0	0			
,, 282	5	0	0			
,, 290	25	0	0			
,, 296	10	0	0			
,, 302	25	0	0			
				95	0	0
By Gifts:—						
Case No. 263	10	0	0			
,, 265	10	0	0			
,, 270	10	0	0			
,, 271	5	0	0			
,, 273	8	0	0			
,, 275	10	0	0			
,, 279	20	0	0			
,, 280	20	0	0			
,, 281	20	0	0			
,, 283	10	0	0			
,, 285	10	0	0			
,, 286	10	0	0			
,, 287	10	0	0			
,, 291	15	0	0			
,, 292	15	0	0			
,, 293	25	0	0			
,, 295	15	0	0			
,, 298	10	0	0			
,, 301	20	0	0			
,, 304	15	0	0			
				268	0	0
,, Cheque Book				0	4	2
,, Balance at Bank, Dec. 31st, 1895				77	19	10
				£441	4	0

I find by the Bankers' Book that the actual balance on Jan. 1st, 1895, to the credit of the Fund was £110 4*s*., to which the sum of £300 was added by the Proprietors of THE LANCET on Jan. 2nd, 1895.

The balance at the Bankers' at the present date is the sum of £77 19*s*. 10*d*. I have also checked the receipts for disbursements and find the above account strictly accurate.

December 27th, 1895.

HENRY A. PITMAN, Hon. Auditor.

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THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.

CHAPTER I.

Birth and Family.—The Wakleys of Membury.—The Farmer's Son of the Period.—Middle-class Education at the beginning of the Century.—The Entry to a Medical Career.

THOMAS WAKLEY, the founder of THE LANCET, and the successful originator of reforms in medical politics to which are largely due the present high standard of medical education in Great Britain as well as the general stability of medicine as a career, and the public respect with which the members of our profession are everywhere treated, had no hereditary connexion whatever with the pursuits of his lifetime. He was the descendant of a long line of landowners, who gave their Saxon name to more than one west-country village, or adopted for distinctive purposes the appellation of their dwelling place as a name—for both proceedings were common in primitive times, the West of England in particular furnishing frequent examples. Wakerley, or Wakely, or Wakley—the three are variants of the same—is the name of more than one west-country village; and that a traceable connexion existed between the family of Thomas Wakley and one of the families who had resided since Saxon times upon the soil that bore their name is very credible, and was very generally credited by the neighbourhood.

Henry Wakley, the father of the subject of this biography, was born in 1750, and acquired by will a family property in the parish of Membury, on the Devonshire side of the border between that county and Dorsetshire, and a little south of the Somersetshire dividing line. He belonged to a class now largely extinct, but one which a hundred and fifty or even fifty years ago was still very powerful in the land. He was a large farmer, farming personally a holding which belonged to himself and hiring surrounding land generally on long leases, and treating it exactly as if it were his own property, subject only to an annual charge. The position of farming in England during the late Georgian and early Victorian ages made of such men a highly important class. Their private property, sometimes large, but more generally constituting but a small part of their holding, gave them an impregnable and dignified position. Their calling was a substantial and lucrative one. Many of them belonged to the oldest families in the neighbourhood, the homestead having been the headquarters of the family for generations—and this was the case with the Wakleys—while their pedigrees showed intermarriages with their greater neighbours whose rise in the social scale from yeomanry, through squirearchy, into the peerage was a theme of humorous respect among them. For the gulf between yeomanry and squirearchy was not a broad one, and was frequently bridged by a lucky marriage, a little commercial success, or some extra keen attention to agriculture on the part of a shrewd occupier. It was in this class that Mr. Henry Wakley was born, and in it he died at the great age of ninety-two, having established for himself more than local reputation for his knowledge of agricultural affairs. He was the most respected authority on things agricultural in his county and the two adjoining counties of Dorsetshire and Somersetshire, the inevitable arbitrator in disputes, and the universally trusted counsellor in times of need. He was a Government Commissioner on more than one occasion for the Enclosure of Waste Lands, and, at one time, was among the most extensive occupiers of land in Devonshire.

Mr. Henry Wakley had eleven children, eight sons and three daughters, and of the sons Thomas Wakley was the youngest. He was a just but severe parent, the very type of man to rule a large family. He gave his orders and exacted obedience of them from all; and as his position of master was unquestioned his family had no feelings towards him that were other than respectfully affectionate. In those days the sons of the practical farmer were employed on the farm. They oversaw, and if necessary did an ordinary day's work like any other man on the land. In time they went about their business or professions, but while they were at home they made themselves useful. It was in this old-fashioned patriarchal mode of life that Thomas Wakley spent his boyhood, and to the frugality, self-denial, and open-air exercise that it enjoined upon him he owed, no doubt, his great bodily strength, as he certainly owed the taste for country sports that he manifested later in his life. For they were a great sporting family, renowned through the country side for their skill with the gun and their judgment of horseflesh, so renowned that their fame is not dead yet. The three elder brothers were remarkably good shots, and the eldest of all carried on a highly successful business in horse-breeding on the farm. Mr. Henry Wakley, the father, was an ardent hunter. He rode regularly to hounds and with a pack of harriers, and about the latter, the Cotleighs Harriers, it is an interesting fact that the pack is still in existence and under the same family mastership that it was in the days we are writing of. Not long before his death Mr. Henry Wakley issued a challenge to all comers of his own age to ride a steeplechase "over a fair hunting country," mounted on a horse as old as his own. At that time he was over ninety years of age and his favourite horse was thirty-three, so that it is not surprising that the gauntlet was never taken up. In such a household it is not surprising that young Wakley grew up an active boy. He would be up at sunrise, and, if necessary, ride the horses to the plough. And though, doubtless, the task was not one of direct compulsion, but undertaken rather because it pleased the active boy to do it, yet it will be remembered that if he had done it under his father's orders, because no other plough-boy was employed, he would only have been doing what the sons of scores of other landowners were doing daily in Devonshire, and also in more advanced parts of England, more directly under the scope of urban influence and more aware that the schoolmaster was abroad.

Although brought up in this simple and hardy manner it must not be supposed that Thomas Wakley's education was neglected. On the contrary, he was sent to the best grammar schools in the neighbourhood—viz., that of Chard in Somersetshire, an endowed and very ancient school, and that of Honiton in Devonshire, one of the best-known schools in the west of England. Chard lies about six miles north-east of Membury, and Honiton about ten miles west. To go to a boarding school was, at the end of the last century or beginning of this, almost a thing unknown to the middle classes. The Royal colleges of Eton and Winchester and six or seven other of the great public schools had reputations other than local, and so had become the great boarding institutions that they are now; but the usual middle-class lad was educated at the nearest grammar school. As a consequence his education was prone to suffer much from the weather. A valley blocked with snow or a swollen stream would cut the young scholar off from his school for a week. Now the neighbourhood of Membury abounds in rich valleys, and these, with their fertile loam soil and its subsoil of gravel, while forming an ideal foundation of pasture, easily became difficult of transit for a boy on foot or a pony. So that whether young Wakley sought instruction from the north-east at Chard, or the west at Honiton, he was always liable to be compelled to play truant by the inclement condition of the country over which he had to travel. Lighting

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also was expensive ninety years ago, and midnight study was not encouraged; nor would a lad, the youngest in a household devoted to country pursuits and rising in the early grey of the morning, feel very disposed to prolong his studies far into the night. And, to add to these hindrances to over-study, there was nothing of the bookworm about the boy. That he made good use of his opportunities is undoubted, because no mind could have been so receptive, no wit so adaptable as his proved to be in later years, if their owner had not been trained to learn and taught to listen. But in mere book-learning Thomas Wakley did not excel. His education was sound in that it fitted him to go on learning when he found himself face to face with the problems of life. He laid as a boy a solid foundation upon which to build a more elaborate education, and this with great critical acumen in his selection of materials and a real appreciation of the good and lasting in literature he proceeded to do. His writing and public speaking alike bear testimony in this direction.

When quite young he more than once expressed a desire to go to sea. He knew nothing of seafaring life. It is true that Membury is but eight miles from the channel coast, and that from the castle heights the bay of Lyme Regis can be seen spread out before the eye; but Membury was a purely agricultural place, with a purely agricultural population, and young Wakley's desire, which was real and not a mere idle expression of a passing fancy, must have been spontaneous in origin, and not inspired by any of his immediate surroundings or companions. It was an early example of his independence of thought. He obtained his desire, for when still quite young he took a voyage to Calcutta in an East Indiaman with his father's reluctant permission. It was not intended that this should be his entry into the career of a mariner, for he travelled as a *protégé* of the captain, who was the personal friend of his father. Whether, his curiosity assuaged, he would have abandoned the sea as a profession is only a subject of speculation, but it is difficult to conceive a boy with his restless, arguing, inquisitive temperament settling down to life in the merchant service, with its great demands upon patience, and its necessarily unquestioning obedience and resignation. Anyhow, circumstances worked against this voyage being a prelude to a career as a sailor, for on the return journey his friend the captain died, and there was no longer any inducement to the boy to remain with the ship. He came home and returned to school, and no one heard anything from that time of his experiences on the voyage save that he is, in a newspaper article found in an old scrap-book of his, reported to have said, in answer to an inquiry why he had not brought his chest back, that he thought he had had quite enough to do to take care of himself. Life in those days was rough on board a merchant ship, as rough as, or rougher than, it was on board a man-of-war, and what that means is more than hinted at in several passages of Marryat's famous novels.

His new school was at Wiveliscombe, in Somersetshire, and there he remained until his choice of a future was made. It fell upon medicine. So at fifteen years of age he was duly apprenticed to a Mr. Incledon, an apothecary at Taunton, that being the very usual method in those days of commencing professional studies. For it must be remembered that before 1815, which was the date of the passing of the Apothecaries Act, the curriculum of the medical student was very vague. Previously to the passing of that Act it was not illegal for any unqualified person to practise medicine, and as a consequence there were very many people working in the medical profession who were believed by their patients to be duly qualified medical men, but who had undergone no training and been subjected to no tests. Their education had consisted either of apprenticeship to a licensed apothecary or of a few months' discharge of the duties of dispenser to an unqualified practitioner. As it was not always possible to forecast the future of a lad, it was usual to send him to an apothecary first as an apprentice. If he did not show any remarkable aptitude or desire any further education, that might suffice, and he could continue on the lines of his master. If, however, he desired to fly at higher game, or his parents desired it for him, he could afterwards be sent to London, Edinburgh, or Dublin, to walk the hospitals and take a diploma. This both Thomas Wakley and his parents wished, and he did not complete his time with the Taunton apothecary, but was transferred to his brother-in-law, Mr. Phelps, a surgeon of Beaminster, as a pupil. From Mr. Phelps he went to Mr. Coulson, a member of a well-known medical family at Henley-on-Thames, as assistant, and eventually, in 1815, went to London as a student of the United Schools of St. Thomas's and Guy's.

With his start in London as a medical student his real life-work began. Hitherto he had been under the supervision of parents, elder brothers and sisters, schoolmasters and other masters, and what he did and the way in which he did it were necessarily not left to his free choice. But in London he was alone, free to work or play, free to behave or misbehave, free to rise if he would, and equally free to fall. The real life of Thomas Wakley dates from the moment when his individuality for the first time received play, but the circumstances of his younger days, which we have briefly touched upon, exercised an influence upon his future which was often, as will be seen, easily traceable. To his country bringing-up he owed the simplicity and bluff directness that stood him in such good stead in controversy, and to it must be attributed the wonderful physical strength and keen vitality that enabled him to work at enormous pressure for hours together with no diminution of zeal or interest. To it also he owed his hatred of all shams. His youth had been spent among a simple folk, to whom truth was everything, and in whose eyes the pretender was a particularly obnoxious person. His position in his family must also be remembered. They were a fine and jovial set of sporting men and handsome women—his brothers and sisters—and his life in contact with a large and unprejudiced group of his seniors gave him from the first a certain assurance; but he was junior among them, and the fact would temper the assurance, for there were no keener critics of manners and no stricter disciplinarians than the elder sister and the big brother. He was especially under the influence of his second sister, the wife of the rector of the parish, Mrs. Newbury by name, to whom he was devoted. In his controversial moments later—and these were controversial, indeed—whatever his pen might have written his personal manner towards his opponents was blameless and his mental attitude inflexible. This combination of firmness with good-tempered courtesy he had learned in his country home; his environment there had taught him that it was good policy, and his sister had taught him that it was the right way to behave.

When Thomas Wakley came to London he was well equipped, his physical condition was admirable, of book-learning he had a sufficiency, while his moral character had received the very training best calculated to enable it to deserve and attain success.

The portrait which we publish this week depicts him at the age of forty. It is reproduced from a painting by K. Meadows, engraved by W. H. Egleton.

MEDICAL MAGISTRATE.—Mr. William H. Jalland, F.R.C.S., L.R.C.P. (the Sheriff of York), has been placed on the Commission of the Peace for the North Riding of Yorkshire.

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THE LANCET
Analytical and Sanitary Commission
ON
DANGEROUS PARAFFIN LAMPS.

THE following paragraphs appeared in the daily papers of Dec. 28th and 30th, 1895:—

"GIRL BURNED TO DEATH.—Another case of the danger of cheap paraffin lamps came before the coroner at Hampstead yesterday, when an inquest was held on the body of Jane Venables, a girl eight years of age. The mother said that on Sunday afternoon they were looking at some pictures with a lamp on the table which cost a penny. It consisted of a glass bowl with a piece of tin for a burner. By accident it was overturned and the little girl was frightfully burned. She was at once taken to the hospital, and on Tuesday last she succumbed to the injuries. The coroner commented on the danger attaching to these cheap lamps, and said the authorities should take some steps to prevent the sale of them. The jury returned a verdict of 'Accidental death.'"

"Early yesterday morning a sad affair occurred at Canterbury. A woman named Wood, living at a house in a poor quarter of the city, was the last of the family to retire to bed. Her husband and daughter were startled by screams and found her at the bottom of the stairs in flames. A broken lamp was by her side, and had either exploded or fallen from her grasp. She expired just as the flames were extinguished and was frightfully burnt."

The list of disasters which have been published in the daily papers during the last twelve months, and of which the above, occurring very recently, are now a painfully familiar type, is a terrible one. It abounds in horrifying details, calculated to strike terror and alarm into the minds of all those in the habit of using paraffin lamps and to make them fearful of continuing their use. No less than 284 lamp accidents have been investigated during the year, of which, according to the annual report, recently issued, by the chief officer of the Public Control Department of the London County Council,[1] 31 were fatal, involving the loss of 33 lives. Serious as this result is, it does not represent anything like the full extent of the accidents which, though narrowly imperilling life, have resulted chiefly in serious damage to property by fire. Thus during the year 1894, to quote another paragraph of the report, the fire brigade were called to no less than 448 fires reported to have been caused by lamp accidents. Of these, 90 are ascribed to explosions and 337 to the upsetting of lamps. These figures, of course, exclude accidents in the provinces, which, if included, would enormously swell the calamitous catalogue. Not included, again, in these numbers are a large number of small fires reported to the insurance companies where the fire brigade do not attend, and where the damage does not usually exceed £5. The risks to life attending such occurrences are, however, great, and it is stated that these small fires exceed in number all reported cases, which in 1894 were 3061, and that at least one-half of them are caused by petroleum oil lamp accidents. These statistics surely fully justify the remarks of the chief officer that "a very serious and alarming danger is ever present in the thousands of houses in London where cheap and unsafe lamps are in use."

With the very firm conviction in our minds that something ought at once to be done in the interests of common humanity by legislative measure to stamp out this appalling cause of danger, we have set ourselves the task of finding out as far as possible in a practical way as to what this danger is due and how it may be averted. Is it due to the lamp, the oil, or both? The results of the following simple experiments, which we now publish, afford, we venture to think, some answer, at any rate, to each of these questions. In the first place, it is important to consider what are the properties of the oil commonly used for lighting purposes, and next what are the structural features, good or defective, in the lamps in which this oil is burned. The purchase of both oil and lamps was therefore the first step. Neither the lamp nor the oil that would be likely to give the worst results was sought, but both were purchased just as an ordinary individual would purchase them for household use. For this reason expensive lamps were not obtained, but, as far as could be ascertained, those were obtained which are most in demand by the poorer classes, who doubtless think to economise by buying the cheapest article. We are perfectly satisfied that the lamps purchased were of the type that the poorer classes buy, since in some instances poor people came into the shops at the very same time and purchased a lamp identical in pattern and price. Moreover, a peep into some of the houses in the district where the lamp was bought convinced us that our purchase fairly represented the majority of the lamps used, since similar ones could be seen on the table in the rooms of the houses of the same neighbourhood. The Italian warehouseman or the man who sells oil is generally the man who is responsible for the sale of lamps to the people of a poor district. It is he who supplies new wicks to the lamps and provides them with new chimney glasses. Occasionally, but only occasionally, a lamp shop or china and glass shop is the place where lamps may be purchased, but in this case it is not usual to supply the oil or to make good the wear and tear of wicks, chimneys, &c. The prices paid for the lamps experimented with varied from 1*d.* in the case of hand lamps to 2*s.* 11½*d.* in the case of lamps for the table. The tour made by our Commissioners for the object of purchasing these lamps round the poorer districts of London brought to light one fact. No matter in what part of London the purchase was made, four or at most five types of lamps were all that could be obtained. These districts included the New Cut, Lambeth, Seven Dials, Drury Lane, the slums of Westminster, Whitechapel, and Clerkenwell.

A fairly accurate idea of these lamps will be obtained from an inspection of the picture below, which is reproduced from a photograph of the group experimented with. (Nos. 19, 20, and 21 were not purchased, but were taken from a private dwelling-house as examples of more expensive lamps in very general use.) As will be seen, there are in reality but five types of lamps amongst these, although they were purchased in various parts of the metropolis. The oil was purchased at an ordinary oil shop at a cost of 7*d.* per gallon. It was the next best quality to "water white." It proved, on testing, to have a flashing point of 75° F. (Abel's test), equal to a flashing point of about 105° in open vessels. Its specific gravity was 0·825 at 60° F. On distilling the oil it commenced to boil at 300°, 10 per cent. being collected at this point. The temperature then gradually rose, successive 10 per cent. fractions being obtained, until it was considerably above 400°, at which the whole of the remainder came over.

For convenience the lamps may be classified as follows:—

1. Small glass hand lamp, No. 22 in the illustration, to be found in use in almost every small house, with tin reflector and round chimney, wider at the base and having a small rod-like wick, the burner simply fitting over the mouth of reservoir without screw. Price 1*d.*

2. Glass hand lamps in various colours, flat wick, with brass cap and slit, pear-shaped chimney. See figs. 4, 5, 10, and 13. The last two were broken so that only the burners and wicks are shown. Prices from 4*d.* to 10*d.*

3. Hand lamps, brass circular burners. See figs. 16 (handle broken) and 6. Prices 1*s.* 6½*d.* and 1*s.* 9*d.* respectively.

4. Table lamps, china or glass reservoir in various colours and patterns, screwed to bronze metal base; flat wick, pear-shaped chimney. A very common form of lamp in very general use. See figs. 1, 8, 9, 14, 15. Prices ranging from 9½*d.* to 1*s.* 3*d.*

5. Table lamps constructed entirely of opal glass known as alabaster; a very popular form of lamp. Circular burners, round chimney and shade. See figs. 2 (broken) and 12; prices, 1*s.* 5½*d.* and 1*s.* 8*d.* respectively.

A more detailed description of each individual lamp is given in the account of the tests to which each was submitted. The experiments were of the simplest possible kind.

In the first series of experiments (A) the lamps were attached by means of clamps to an upright rod of iron connected at its base with a long iron spindle, at the other end of which was a handle, convenient for tilting the lighted lamp in any position. The spindle was made long enough to avoid any risks to the experimenter. In the second series of experiments (B) a draught of air was forced down the lamp when alight and under varying conditions. Finally, the lamp was knocked over (C) from a wooden platform not more than two feet high on to the ground, and in two instances (hand lamps with glass reservoirs, the surviving burners and wicks of which are given in figs. 13 and 10) on to the flag paving. We append the results in as brief a form as possible, together with other observations

[1] Annual report of the Chief Officer of the Public Control Department of the London County Council, 1894-95. Sold by Edward Stanford, 26 and 27, Cockspur-street, Charing-cross, S.W. Price 8*d.*

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which may throw some light as to the possibilities of accidents. These experiments were repeated with the oil and reservoir warmed to 100° F.

Lamp No. 1.—This was a lamp purchased in a poor W.C. district, consisting of an amethyst-coloured glass reservoir screwed to a metal base; the chimney was pear-shaped, the wick flat, fitting imperfectly in the wick-tube, brass cap and slit. Distance of flame from oil reservoir two inches. The screw connecting burner to reservoir was moderately good, one turn and a quarter sufficing to disconnect the two. (*a*) Lamp, after an hour's burning, turned through a right angle, chimney fell off, oil escaped and instantly ignited in large flames round burner, and in a few seconds oil trickled out of reservoir and dropped in flames on the ground. On making the chimney quite tight and repeating the experiment the result was not nearly so serious. On turning the lamp completely over the chimney fell off and oil escaped rapidly and burst into flame; pieces of oilcloth beneath were soaked and ignited, and the flames were very difficult to extinguish. The flames around the reservoir rapidly heated the oil inside, which escaped in dense, white fumes, which, on one occasion, ignited with violence. (*b*) On blowing down chimney no serious result; flickered and smoked, but finally extinguished. (*c*) Knocked off wooden platform, chimney came off, oil rapidly escaped and burst into furious flame. These experiments were repeated with the oil in the reservoir at 100° F. The results were practically the same and did not appear to be any more serious.

Lamp No. 2.—A so-called "alabaster" lamp with circular wick, burner came off from reservoir on turning the screw half a turn only, with very imperfect thread; the wick in the reservoir was flat, but assumed the circular form on being screwed into burner tube; there was distinct space, however, between the opposite edges of the wick in the tube, forming a hole connecting the space of the reservoir with the outside air. The lamp was extremely light and easy to upset. (*a*) On turning the lamp, which had been alight one hour, through a right angle the oil leaked out very rapidly and put out the flame. The chimney kept on, but on or off it did not appear to make much difference. On turning the lamp right over the result was the same. These experiments repeated wihe the oil in the reservoir at 100° F. were much more serious, the oil then escaping in flames, the reservoir rapidly emptying, so bad was the leakage. (*b*) On blowing down the chimney no serious result happened, despite the existence of a space between the edges of the wick as pointed out above. (*c*) Knocked off wooden platform the lamp broke at the base of reservoir, as shown in the illustration, which immediately emptied, the oil ignited, and quite half a pint was on fire. It was exceedingly difficult to extinguish, and cloth saturated with the oil baffled all attempts at extinction. Owing to the breaking of the lamp the experiment of upsetting it when the oil was at 100° F. could not be tried.

Lamp No. 3.—Tin wall lamp frequently to be found hanging on the walls of the passage of small houses. Pear-shaped chimney kept in position by a projecting piece of tin with perforation. Flat wick; brass cap and slit; thread of burner imperfect; turns one and a half times to come off; flame two inches from reservoir. (*a*) After burning an hour the lamp was turned through a right angle with the result that, despite a serious leakage of oil, there was no ignition. On turning it completely over the result was the same; the flame went out and the oil leaked considerably. In both instances the chimney kept its position. (*b*) No serious result followed on blowing down the chimney. (*c*) Upset on wooden platform, falling to the floor two feet; chimney was displaced, oil freely flowed out and ignited. These experiments repeated with the oil and reservoir warmed to 100° F. were the same in effect.

Lamp No. 4.—Hand lamp, ruby glass reservoir, bought in Westminster; pear-shape chimney, flat wick, burner fitted with brass cap and slit; flame from oil two inches; moderately good thread to burner, the screw requiring one and a half turns to be detached from reservoir; price 10*d.* (*a*) Turned over at right angles after it had been burning one hour, oil freely escaped and ignited; the chimney remained in position. This lamp was accidentally dropped when not alight; the handle came away from reservoir, leaving two holes, out of which oil escaped. Further experiments were therefore impossible.

Lamp No. 5.—Hand lamp with white glass reservoir, bought in the New Cut, Lambeth, for 6½*d.*; burner had brass cap with slit; pear-shaped globe; thread of screw on burner moderately good; on one and a half turns it became detached from reservoir. (*a*) After burning one hour turned over at right angles, oil rapidly escaped and burst into flame. On restoring lamp to upright position flames shot out of the chimney with a roaring noise, oil being scattered in all directions, flaming fiercely. The result was similar on turning the lamp right over. (*b*) Blowing down the chimney after one hour's burning simply put the flame quietly out. (*c*) Upset on edge of wooden platform the results were just as serious as described in (*a*). On repeating these experiments with the oil at 100° F. the results were practically the same.

Lamp No. 6.—A brass hand lamp, with circular wick; screw fittings fairly good, burner screw turned one and a half times before it could be detached from reservoir. (*a*) Turned half over, chimney remained on, and flame went out in spite of serious leakage of oil; when chimney was loose oil round the wick ignited, and ignited oil escaped—turned right over with both loose and tight chimney flame went out, although leakage of oil was serious. (*b*) Blowing down the chimney effected no serious result. (*c*) On the lamp falling from platform to floor the chimney became detached, and the wick flared seriously, the flames playing round the reservoir in a dangerous manner. As it was it could be easily put out. Experiments repeated with oil and reservoir warmed to 100° F. the same.

Lamp No. 7.—This lamp was bought in a crowded and poor district in Westminster for 2*s.* 11½*d.* It consisted of a brass stand and cap containing a glass reservoir with protective brass top; the wick was circular and the flame quite three inches and a half distant from the oil; the thread of burner screw was fairly deep, two turns of the screw being necessary to detach it from the reservoir. (*a*) Although the reservoir and burner fell out of the cup-shaped base on turning this lamp at right angles after it had been burning an hour, yet no serious result followed, despite the excessive escape of oil; the flame was put out and the glass reservoir did not break. (*b*) Blowing down the chimney simply extinguished the flame. (*c*) The lamp on being upset behaved as in (*a*). The experiments repeated with the oil and reservoir warmed were substantially the same.

Lamp No. 8.—Table lamp with opal reservoir and coloured designs attached to metal base, bought in the neighbourhood of Drury-lane. Price 1*s.* 1*d.* Pear-shape chimney, brass cap with slit; very imperfect thread on burner screw, coming away from reservoir on three-quarter turn, and on one occasion the reservoir fell away from burner on merely carrying the lamp; flame half an inch from reservoir. (*a*) After an hour's burning the lamp on being turned to a horizontal position gave no very serious result so long as the chimney was in position. When the chimney was loose the oil escaped freely and ignited. The same result was obtained when the lamp was turned right over. (*b*) A draught down the chimney extinguished the flame. (*c*) The lamp on falling from a platform to the ground leaked very badly, the chimney fell away, and the oil escaped in every direction in fierce flames. Reservoir did not break. The results were of the same character when the oil and reservoir were warmed to 100° F.

Lamp No. 9.—This lamp was purchased in a busy street in Westminster for 1*s.* 3*d.* It is a form very commonly used, consisting of a blue glass reservoir screwed to a metal base; it had a pear-shaped chimney and flat wick, brass cap and slit; the screw of burner was fairly good, one and a quarter turns being required to detach it from reservoir; the flame was 2 in. from reservoir. (*a*) Results of turning lamp at right angles as well as completely over were not serious as long as chimney remained on, but when chimney was loose the oil flared round the reservoir, making it hot and expelling more oil, which vaporised and ignited violently; doubtless after some time the glass reservoir under these circumstances would fly to pieces. (*b*) There was no serious occurrence on blowing down the chimney. (*c*) On being upset from platform to the ground the chimney came off, and the oil flared alarmingly round the wick; and after a time a big roaring flame proceeded from the burner. The experiments with the oil and reservoir at 100° F. gave the same results.

Lamp No. 10.—A cheap glass hand lamp, bought in the neighbourhood of Seven Dials, price 6½*d.*, purple coloured glass reservoir, and in other respects the same as 4 and 5. (*a*) No very serious result followed the turning over of this lamp either completely or half-way; a few drops of oil escaped, but the flame went out in either case with the chimney on or off. (*b*) Blowing down the chimney produced

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no serious effect. (*c*) On knocking the lamp over much oil was spilt and ignited, the chimney being broken, but not the reservoir. On dropping this lamp alight on stone paving the reservoir smashed, and instantly the escaping oil burst into flame. The experiments of blowing down the chimney and turning the lamp over lashed to an upright rod were productive of the same results when the oil and reservoir were heated to 100° F.

Lamp No. 11.—A hand lamp bought in the neighbourhood of the New Cut, price 8½*d.*, consisting of a metal reservoir and saucer attached, painted red. Flat wick; brass cap and slit; pear-shaped chimney; badly fitting screw, one turn of which detached burner from reservoir; flame two inches from reservoir. (*a*) After an hour's burning the lamp was turned half over and then right over, with the result simply of the flame going out and with but a small leakage of oil, the chimney remaining in position. With a loose chimney the results were quite different; oil escaped and flamed round the wick, and in a few seconds, owing to the heating of the reservoir, oil was forced violently out, shooting flames in every direction. (*b*) Blowing down the chimney caused the flame to go out quietly. (*c*) On knocking the lighted lamp off platform on to the ground the chimney came off, oil escaped and flared in every direction. The results were the same with the oil and reservoir at 100° F.

Lamp No. 12.—This was an "alabaster" lamp bought in the New Cut, Lambeth, for 1*s.* 5½*d.* It had a circular wick and was in construction identical with No. 2. Unlike No. 2, however, it did not break in the course of the experiments. The flame was 3½ inches from the reservoir. The thread of burner-screw was fairly good, and one and a half turns were required to detach it from reservoir. This lamp is very light and easily upset. (*a*) After burning one hour the lamp was turned into a horizontal position with the result that the chimney kept on and the light went out. On turning the lamp right over, oil rapidly escaped and fell out in sheets of flame, the chimney being still in position. When the chimney fitted loosely the results were much less serious. (*b*) On blowing down chimney after one hour's burning no serious result was observed. (*c*) On falling off platform the chimney broke and the flame went out (the lamp did not break, as in the case of No. 2). The experiments repeated with the oil reservoir warmed to 100° F. were not widely different in results.

Lamp No. 13.—A lamp of the same description and price as 4 and 5, purchased in Whitechapel. (*a*) Proved to be most dangerous under all circumstances; oil rapidly escaped on turning the lighted lamp half over and freely ignited, and big sheets of flame proceeded out of the chimney, scattering flaming oil in all directions. The flames were very difficult to put out, especially where the oil had soaked into some old carpeting. (*b*) This lamp, strange as it may appear, gave no serious result on blowing down the chimney, even when the oil was at 100° F. (*c*) On knocking off platform the result was most dangerous, flaming oil being scattered in every direction. The results were not accentuated when the oil and reservoir were first heated to 100°. Finally, the lamp was dropped alight on hard stone; the glass reservoir smashed, and the escaping oil instantly ignited.

Lamp No. 14.—Purchased in the neighbourhood of Seven Dials, price 1*s.* 2½*d.*; purple-tinted glass reservoir on heavy metal base; moderately good screw to burner, which turned one and three quarter times to become detached from reservoir; flat wick; brass cap and slit; pear-shaped chimney. (*a*) On turning this lamp through a right angle after it had been burning an hour chimney remained on, oil leaked seriously; but the flame went out when, the chimney being loose so that it came off, the escaping oil burst into flame and was very difficult to extinguish; turning the lamp right over gave the same result. (*b*) On blowing down chimney the flame flickered, smoked, and went quietly out. (*c*) On upsetting this lamp from the platform oil escaped and flared furiously. Reservoir did not break. The results were much the same when the oil and reservoir were first warmed to 100° F.

Lamp No. 15.—Of the same description as last, bought in Whitechapel, price 9½*d.*; very faulty thread on burner screw, one turn sufficing to detach it from the reservoir. (*a*) This lamp on turning half over leaked very badly, but when the chimney remained on flame eventually extinguished. When the chimney was loose the wick flared alarmingly, all escaping in flaming drops. On turning right over with the chimney on, the flame went out, but with a loose chimney the oil escaped and flared furiously, dropping in sheets of flame below. (*c*) Blowing down the chimney was without serious result. (*c*) On falling from platform to floor the chimney came off, oil spilt in serious quantities and flared up in a dangerous way. On repeating these experiments with the oil and reservoir warmed to 100° F. the results were similar.

Lamp No. 16.—Bought in the neighbourhood of Lambeth, price 1*s.* 6½*d.*, and similar to No. 6. A round brass lamp with handle attached, which broke after a time, the weight of the lamp when full being more than the cement could stand. (In the illustration the broken handle is resting on the reservoir of the lamp.) Circular wick and burner the same as No. 6. Badly fitting screw to burner, requiring one turn and a quarter to detach it from reservoir. (*a*) After one hour's burning the lamp was turned at right angles, with the result that the chimney kept on, and suddenly a sheet of flame shot out of the chimney with considerable violence, ignited oil continuing to pour out. When the chimney was loose so that it fell out the flame simply went out. (*b*) Draught down the chimney put the flame out quietly. (*c*) On upsetting the lamp from the platform it went out. These experiments repeated with the oil and reservoir warmed to 100° F. were followed with very similar results.

Lamp No. 17.—Lamp bought in Whitechapel, price 1*s.* 9*d.* All brass; flat wick; loosely fitting brass cap and slit; pear-shaped chimney, burner screw fairly good, requiring one and a half turns to be detached from reservoir. Reservoir provided with screw filler. Lamp very light and easily upset. (*a*) Turned over right angles, chimney remaining on, flame went out; with loose chimney, and falling out, oil burned quietly round wick; the leakage was small, the oil escaping without appearing to ignite. On turning right over the chimney dropped out, oil flared round the wick and heated the reservoir seriously; it could, however, be easily extinguished. (*b*) Blowing down chimney simply put flame quietly out. (*c*) On knocking lamp off the platform to the ground oil spilt all over the place and burnt furiously. The results were the same when the experiments were repeated with the oil and reservoir heated to 100° F. It should be observed that the oil in lamps constructed entirely of metal is, after an hour's burning, at a temperature of at least 80° F.

Lamp No. 18.—A safety hand-lamp, all metal, purchased in Westminster, price 6½*d.* An S-shaped wick tube projects nearly to the bottom of the burner, so that when the lamp is upset the flame cannot possibly reach the reservoir, neither can the oil escape to any serious extent or faster than it will flow through the flat wick, which fits very well. The S-shaped tube serves, in fact, as a trap, like the traps used for drain-pipes, only on a much smaller scale. One fault of this lamp is its very small base compared with the circumference of the body of the reservoir; in other words, the slightest knock upsets it. Another is the manner of attaching the wick-burner to the reservoir, which is by means of a bayonet catch. Assuming its safety, there is no reason why safety should not be made doubly secure by improving these points of construction. (*a*) On turning the lamp half over the flame gradually went out, either with the chimney remaining on or falling off. On turning it right over a small flame lingered for a while about the wick, but eventually went out. In no case was there the slightest leakage. (*b*) Blowing down the chimney simply put the flame out. (*c*) The results of upsetting this lamp were precisely the same as in Experiment (*a*). On warming the oil and reservoir to 100° F. the results were also the same. The lamp is probably safe, but it would be better to modify its construction in accordance with the observations made in a preceding paragraph.

Lamp No. 19.—A large lamp with two flat wicks and extinguisher, and lever for raising chimney, attached to a drawing-room stand lamp. Reservoir of copper. Burner connected to reservoir by means of bayonet catch—as will be seen, a very faulty arrangement, and one which should be replaced by a good screw. Wicks three inches and a half from reservoir. (*a*) On turning this lamp half over the extinguisher became fixed and failed; very serious results followed, owing to a leakage between the reservoir and burner, and owing also to the burner becoming detached from the reservoir. In a very short time close upon half a pint of oil rushed out of the reservoir and instantly ignited, scattering flame in all directions. The flames from the lamp and of the spilt oil were put out with very considerable difficulty. (*b*) On blowing down the chimney no serious occurrence happened. (*c*) On knocking the lamp from the platform the results were just as dangerous as in Experiment (*a*). The experiments repeated with the oil and reservoir warmed to 100° F. were substantially the same.

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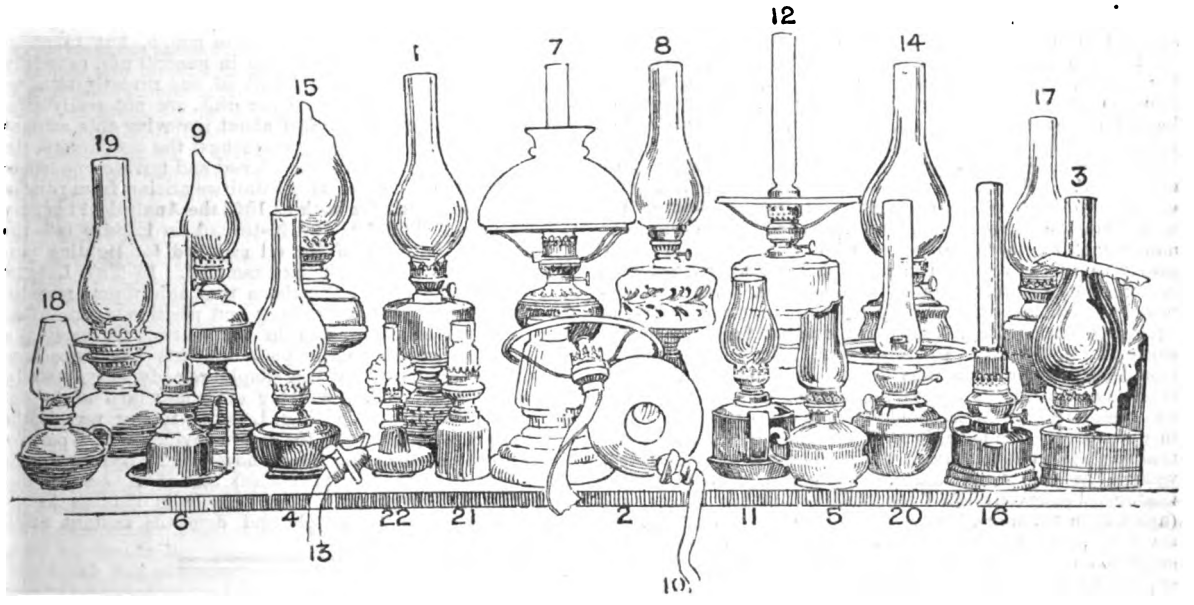
Lamp No. 20.—A lamp used in the library of a private house. Part of the air-supply comes up the tube through the reservoir; it has a circular wick fitted over a brass tube, ending at the top in a perforated cylinder and spreader. The lamp is provided with an extinguisher, which is a cylinder of metal which closes completely over the perforated cylinder and thus immediately stops the access of air. (See illustration, Lamp 20.) Wick completely filling wick tube, burner attached by means of well-cut screw requiring at least three good turns before it could be detached from reservoir. Reservoir metal and provided with screw filler. (*a*) On turning the lamp half over the chimney remained on, and the extinguisher acted at once and put the flame out, though there was a slight leakage of oil. With the chimney loose, so that it fell out, the result was just as satisfactory. On turning the lamp right over the flame was completely extinguished. (*b*) On blowing down the chimney the flame went quietly out. (*c*) Upsetting this lamp by knocking it from the platform was attended with the same satisfactory results as in (*a*). Warming the oil and reservoir to 100° F. made no difference to its satisfactory working. This is probably a safe lamp.

Lamp No. 21.—A lamp similar in construction to Nos. 12 and 16, circular wick, except with small glass reservoir, used in suspension lamps in halls, &c. Flame three and a half inches from reservoir; wick flat, but converted into round wick by action of screw; burner screw fitting badly and requiring one and a half turns to detach it from reservoir. (*a*) On turning lamp half over the size of the flame increased alarmingly, the heat expelling more oil from the reservoir, until sheets of flame shot out of the chimney; otherwise there was little mechanical leakage. Curiously enough, on repeating the experiment and turning the lamp right over, the flame went out, the chimney remaining in position. With a loose chimney the flare was not so serious and could easily be extinguished. (*b*) A draught down the chimney put the flame quietly out. (*c*) Upsetting the lamp was attended with results similar to those in (*a*). On raising the temperature of the oil to 100° F. the results were precisely the same.

Lamp No. 22.—A glass lamp purchased in the eastern suburbs, price 1*d.*, *corresponding exactly with the lamp described in the newspaper paragraph at the commencement of the present article, which caused the death of a child last week under shocking circumstances.* Others identical in pattern could be obtained in any district in or round London. Burner and chimney simply fitted roughly on mouth of glass reservoir, so that if incautiously picked up by the screw or the base of the chimney the reservoir would be detached and fall on the floor. The wick, which was solid and round, fitted fairly well; the flame was one inch and a half from the reservoir—the chimney small and round, provided with a star metal reflector. The metal fittings were of tinned sheet iron. (*a*) As might be expected, on turning the lamp over, the chimney and burner fittings came away with the wicks from the reservoir, and were quickly followed by a stream of oil, which instantly ignited and flared seriously, the oil being scattered all over the place. (*b*) It appeared to be a safe proceeding to blow down the chimney of this lamp. (*c*) Upsetting the lamp produced results identical with those recorded in (*a*). The warming of the oil and reservoir did not appear to accentuate the danger.

It will surely be conceded that in not a single case were the conditions of experiment such as could not occur in practice; indeed, the great probability is that the conditions in practice, especially when accidents occur, would be much more severe. Thus, in falling, the lamps would receive a severe shock; they would probably after being upset roll off the table upon the floor, and most probably come into contact with easily ignited and inflammable materials, such as curtains, table cloths, &c., and the reservoirs, if made of fragile material, would be broken. Hanging lamps would be knocked down and fall probably a considerable distance. And, again, the lamps might be dirty, with pieces of burnt wick in the reservoir and underneath the burner. In all cases it is extremely probable that the chimney would be shattered. Furthermore, it is probable that no one would risk picking up a lamp flaming furiously, and the longer it is left the more dangerous would it become It was expedient, on the other hand, in our experiments to smother the flames and to extinguish the lamps with all speed. We repeat, then, that the conditions under which these lamps were tested were, if anything, favourable to the lamps. And yet only 2 out of the 22 tested appeared under these circumstances really safe, one of these being a small hand-lamp, sold for 6½*d.* as a safety-lamp, and only recently introduced, we believe, into the market; while the other was a lamp costing at least 15*s.*, which was taken from the library of a private house. Is not the fact that a small safety-lamp is now on sale, as we found, at most oil-shops a striking piece of evidence that those who sell lamps admit the dangers of the majority of others they have hitherto sold and still do sell?



We may classify the results of the experiments we obtained as follows:—

Very dangerous ...	**6**	**(Nos. 1, 5, 8, 13, 19, and 22 in the illustration.)**
Dangerous	**9**	**(Nos. 2, 4, 6, 9, 11, 12, 14, 15, 17.)**
Safety uncertain ...	**5**	**(Nos. 3, 7, 10, 16, 21.)**
Probably safe ...	**2**	**(Nos. 18, 20.)**
Total number tested	**22**	

Proportion rejected as very dangerous, dangerous, or of uncertain character, 90 per cent.

It is therefore no exaggeration to say, according to this result, that, at present at least, 70 per cent. (and probably

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more) of the lamps sold in London are extremely liable to add disaster upon disaster to an already very terrible list.

We have obtained no evidence that these lamps were dangerous except when upset. In no case in our experiments did an explosion occur, although attempts were made to produce an explosion by causing sharp puffs of air to go down the chimney when the lamp was alight. Even when the temperature of the oil and the reservoir was at times nearly 100° F. blowing down the chimney simply extinguished the flame. The lamps, therefore, found to be dangerous were so because they freely leaked, so that when the lamp was upset oil escaped and was ignited. Leakage of the lamp is accountable for most of the disasters in London. If the reservoirs were proof against leakage we are convinced that accidents having their origin in paraffin lamps would be reduced to a minimum if not to *nil*. There is little doubt that explosions do occasionally occur, but they must be regarded as exceptional. In the report of the chief officer of the Public Control Department of the London County Council, already alluded to, only three out of the thirty-one accidents were attributed to explosion—one said to be caused by blowing down the chimney, another by a pot falling on the lamp and forcing the burner into the reservoir, and a third by the wick being turned down suddenly so that it fell alight into the reservoir. The second case is certainly an exceptional occurrence, and in the other cases, if the wick had properly fitted the wick-tube, or the wick-tube had projected inside the reservoir within at least a quarter of an inch of the bottom, it would have been impossible for flame to have reached the reservoir. From observations that have been made it is possible, as a cause of explosion, that the wick, being of inferior quality, diminishes in size as it gets soaked in oil, and fits at last so loosely as to drop into the reservoir. It would follow from this that explosions occur mostly with lamps that have been in use some time—a conclusion that is supported by experience. To clear up this point a series of experiments extending over some time would have to be made, but in the meantime the prevention of such an occurrence would be amply met by the introduction of a wick tube extending nearly to the bottom of the reservoir, as set forth below in No. 5 of essential points of construction. We are confident that the majority, and by far the greater majority, of accidents arising from lamps are due to faulty construction of the lamp, whereby the oil escapes alight from the reservoir when it is upset. We do not think that there is any cause for raising the flashing point of oil above its present limit—73° F. in closed vessels, or equal to 100° in open ones. We have, indeed, obtained distinct evidence that there is an advantage in using oil that is to some extent volatile at this temperature. There is reason to believe that metal reservoirs are freer from the liability of accident (apart from fracture), because they get quickly warmed, and the space, therefore, above the oil is full of oil vapour, to the exclusion of air. We note in support of this that the few explosions that have been reported have always occurred in lamps with glass or china reservoirs, which keep cool for a long time, so that vapour is probably mixed with air in the space above the oil. Again, in Germany, where the legal flashing-point of burning oil is actually three degrees below the English limit—viz., 70°—accidents are comparatively rare, a fact which can only be ascribed to the greater intelligence and sobriety of the German working classes, since the lamps they use are similar in construction to those sold here.

We would, therefore, most strongly appeal for legislation, with a view of placing some control over the construction of lamps sold in this country, and we should like to see an official lamp department created at once, the function of which should be to stamp lamps with the Government approval of construction before they are offered for sale.

We are not suggesting a course that is impossible even in regard to the cheapest lamps. These, we are confident, could be made, costing only a few pence, and yet be perfectly safe. The essential points of construction in a paraffin lamp are, according to the observations made in this investigation, as follows:—

1. The reservoir should be of metal or non-fragile material. It should be fixed firmly in the base, and not rest loosely as is the case with many beautiful and artistic lamps in a cup-shaped stand.

2. The lamp should have a base heavy enough to minimise the risk of upsetting.

3. The burner should be connected to the reservoir by a screw with well-cut thread, requiring at least three entire turns before it becomes detached from the reservoir. It should be made tight to the reservoir by means of a washer. Bayonet joints, or pin-and-slot joints, not to say the mere fitting on of the burner like a cap on the mouth of a reservoir, should be prohibited.

4. The wicks should be constructed of material of good quality and should fill the space of the wick tube. The wick should be replaced by a new one as it gets worn and diminishes in size. Circular wick tubes should never be fed by a flat wick the edges of which are not likely to close up in the wick tube. The wick in these cases should be a complete cylinder.

5. The wick tube should be made to descend into the reservoir within at least a quarter of an inch of the bottom. Assuming the screw of the burner to be free from defect, it would be impossible for oil then to escape—the source of most of the danger of paraffin lamps, nearly all of which have their wicks hanging unguarded in the reservoir. This arrangement would also render it impossible for flame to travel into the reservoir space.

In conclusion, it need hardly be pointed out that safety lamps provided with certain structural arrangements of the kind suggested can be obtained. Such are, for instance, the Aria lamp for burning oil of either low or high flashing-point, and the Benson-Lee lamp, with a solid carbon burner, which were described in THE LANCET of June 22nd and July 6th, 1895, respectively. Safety lamps, however, are the exception in the market, and our object in the present inquiry was not to find out the safe lamps, but to ascertain which was the kind of lamp in general use, especially amongst the poor. As the result of our investigations we have found that probably 90 per cent. are not really safe. The sooner our Legislature sets about removing this existent and very real source of danger amongst the community, the better, and then we shall be saddened and terrified no longer by the reports of the shocking fatalities arising from paraffin lamp accidents. So far back as 1862 the Analytical Sanitary Commission of THE LANCET instituted an inquiry into the quality and character of the oil supplied for lighting purposes, some 53 samples being examined. In THE LANCET of March 29th, 1862, it is written that this report revealed the fact in the most convincing and positive manner that much of the oil then sold in the metropolis was in a condition dangerous to the public. This has since been altered by legislation by the simple remedy suggested by the Commission—viz., the fixing of a standard of inflammability. Our report in THE LANCET to-day reveals the fact in (we venture to say) the most convincing and positive manner that most of the lamps now sold in the metropolis (and probably in the provinces) are of a construction dangerous to the public. The remedy in this as in the former case is equally simple and demands instant application.

THE ASHANTI EXPEDITION.

SINCE we last wrote great progress has taken place in all that concerns this expedition. Sir Francis Scott and the head-quarters staff, accompanied by Prince Henry of Battenberg and Prince Christian Victor and the expeditionary force, have left Cape Coast Castle and are now well on their way towards the Ashanti capital. It may be well, therefore, to briefly recapitulate at the present time the object and plan of the campaign and the events that have already taken place. The object of the expedition is the capture of Kumasi, and there are two forces, one proceeding from the south, the other from the north, operating independently of each other to effect this end. While the main force marches from Cape Coast Castle to Prahsu and crosses the Prah in its advance on Kumasi, another, composed of the Gold Coast Constabulary, with a large body of Houssas and Maxim guns, and supplemented by a force of native tribes, is advancing through Koranza territory to attack the Ashantis from the north in the rear.

Assuming that the strength of the opposition to be encountered has not been under-estimated and that the attacking force as a fighting machine proves adequate for the purpose, the success of the expedition may be said to depend upon two things—the transport and medical services. The difficulties to be overcome in these respects are confessedly great.

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Everything has to be carried, as we have said, on the heads of natives, and whatever is required by the troops in the way of stores, food, and ammunition must be taken by them. There is no doubt an abundant force of native carriers, but these cannot be relied upon in case of danger or any unexpected attack. Up to the Prah the work is comparatively easy, with rest camps and depôts organised at intervals *en route*, but beyond it the force will have to depend upon the maintenance of its line of communication for its safety and supplies, and for the removal of its sick and wounded from the fighting force in front to the rear and base. The advance force crossing the Prah will, in addition to an emergency ration for each soldier, carry three days' rations and be followed at a convenient distance by a supply column with four days' rations and supplies of ammunition. Defensive posts will have to be established along the line of route in rear of the advancing column, guarded by small garrisons of Houssas. At Prahsu a hospital of sixty beds is established, another of thirty beds at Mansu, and one at the base under Surgeon-Major Wilson, together with the large floating hospital, the *Coromandel*, into which the sick can be drafted as required. The sick and wounded from the front to the base will be carried in hammocks from stage to stage (spare hammocks being kept in reserve at the several stages for the purpose), the bearers returning from the several stages with stores and supplies on the Indian system, which experience, in the Afghan wars and other campaigns in India, has shown to work well. It was very wisely determined that the troops arriving from England should remain on board ship until all arrangements were completed, and they were consequently required to march as soon as disembarked.

During last week considerable progress had been made in regard to all the arrangements for the advance of the force on Kumasi; indeed, it may be said that practically these had been completed. The road to Prahsu had been cleared. The construction of a bridge over the Prah had been finished and subjected to various tests with satisfactory results, and a second bridge thrown over a creek beyond. A large number of carriers had crossed the Prah with stores ready for the troops on their arrival, and a number of scouts had also been exploring the country on the other side of the river. A Houssa force had likewise been encamped about eight or ten miles inland. A store depôt is to be established at Adansi to relieve the inconvenience and pressure of having to make long journeys to obtain supplies. The King of Adansi had visited Prahsu and placed a considerable number of men and carriers at the disposal of the British force. The *Coromandel* arrived last week off Cape Coast Castle and was followed by the hired transport *Manila* with the second battalion of the West Yorkshire Regiment. The *Coromandel* affords excellent accommodation for the sick and is admirably fitted up and in every way well adapted for the purpose of the hospital ship of the expedition. The bearer company of the Army Hospital Corps on board her, having disembarked, started for the front under the command of Surgeon-Major Wolseley. The medical arrangements of the expedition are stated to be of such a kind as to render it the most complete in respect of medical equipment that has ever left this country. Sir Francis Scott and the headquarters staff did not long remain at Cape Coast Castle after their arrival from England, but left for Prahsu, which is a healthier position than Cape Coast.

The march up country is described by those who have made it as very arduous; the heat is oppressive and enervating, and already a fatal case of heat apoplexy has occurred in the person of a sergeant of the Scots Guards on the route from the coast to Mansu. Prahsu and the neighbourhood of the river Prah, as well as all parts of the country where the bush is at all dense, have been found to be unhealthy, and the troops will push on as quickly as practicable, not only in view of getting to the more healthy uplands, but in order to complete their work and make their return march as soon as possible, so as to bring the campaign to a close during the healthy season. So far there is not any large amount of sickness among the troops, and next to none among the officers; still, many cases of fever, heat exhaustion, and sickness have occurred, and it may be confidently assumed that more will follow when the troops have been longer exposed to the heat and malaria and to the fatigue incidental to a campaign in such a climate.

Many of the malarial and other febrile attacks in the West Yorkshire Regiment are attributable to their late service in India and not to the climate of the Gold Coast. There are also several men of the West India Regiment sick in hospital. The supply of a good potable water for the force throughout the line of march will be a difficulty. Sections of the Prah have been set aside for washing and drinking purposes, and, in addition to the use of tea and previously boiled water, filters and alum will be employed as far as practicable for clarifying purposes. Canvas tanks are used for the percolation and storage of drinking-water.

It is a curious fact, and one not altogether free from disquieting misgivings, that there does not seem to be any certainty as to the part which the Mahommedan tribes in the vicinity of Kumasi take in this expedition. Scouts who have penetrated far into the country towards Kumasi have not apparently come across the Ashantis or been able to obtain any positive information as to the nature and amount of the opposition we are likely to encounter. We trust that the military authorities have not under-estimated this. It is possible, on the other hand, that King Prempeh will evacuate and burn Kumasi on the approach of the force. According to late telegrams from the coast, it seems that the so-called envoys from the Ashanti king have no trustworthy evidence of their right to act in that capacity.

(FROM OUR SPECIAL WAR CORRESPONDENT.)

Sierra Leone, Dec. 9th, 1895.

As another opportunity occurs for sending you a few lines whilst *en route* for Cape Coast Castle, the proposed port of disembarkation, I hasten to let your readers know that up to this point and date there have been no cases of sickness or casualties at all; and, to make use of a pithy nautical definition, "All's well on board." Our detention at the Grand Canary group of islands was limited to about sixteen hours, during which stay in port a large quantity of coal (sufficient for the trip round) and some live stock, in addition to fresh fruit and vegetables, were shipped for use on board the vessel. The weather at Las Palmas, although perhaps during mid-day proving a trifle too warm for some of our new unseasoned hands, was simply perfect in other respects. The barometer registered a mean pressure of just over 30°. The sympiesometer indicated 29·52° and the thermometer a maximum of 75° F. at noon, with a minimum of 70° during the early hours of the morning. There was little wind, scarcely sufficient to ruffle the surface of the water, so that our vessel lay perfectly motionless under a cloudless azure-blue sky on a mirror-like sea.

After a most cordial and agreeable reception of Sir Francis Scott and staff by the Spanish officials and local magnates our anchor was once more aboard before daylight on Monday morning, and the ss. *Bathurst* cleared the breakwater between 5 and 6 A.M. and was steaming away in a south-westerly direction long before most of our passengers had risen for their morning bath. The trade winds, or refreshing, cooling North-easters, have on the present voyage so far been conspicuous by their absence. Their influence is generally felt by ships on reaching the Canary Group from the north, or about the latitude of the Canaries, but southerly light airs have been the order of the day and are even now opposing our progress as we steam S. by W. towards the African coast. It is true, on Dec. 3rd, about 4 P.M., they commenced to blow on our port quarter with a force of about four miles an hour, and proved to be exceedingly refreshing whilst they lasted; for the temperature taken on the top of the main companion had risen in twenty-four hours from a mean of 75° to 80° F.; but they unfortunately fell off during the afternoon of the 5th, and the next day about the same time died away altogether. About 3.30 P.M. on the afternoon of the day in question we were well in sight of, and signalled to, Cape Verd lighthouse, making known to those on shore our nationality as well as official number, so that our position might be known.

After speaking, our course was slightly altered a point or two easterly, not being able to change our direction much in consequence of the existence of extensive and dangerous shoals lying due south of the cape previously mentioned. Ultimately altering our course to E.S.E., we have just now cast anchor abreast of Free Town, Sierra Leone, after a most calm and pleasant passage from our last port.

The time betwixt eating, drinking, and sleeping on board ship, too often spent in an idle, aimless way, has on the

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present trip been utilised in a way hitherto unobserved—or, at any rate, unrecognised—by the writer during a lengthened experience of sea life, in a very practical and sensible manner—i.e., the officers have used up every spare moment at their disposal in perfecting arrangements and specifying details for active forward movements for at least a portion of the contingent the moment we are permitted to land at Cape Coast Castle. Conspicuous amongst such attempts are the efforts of the medical branch, presided over by Surgeon-Major Wilson, the officers and medical staff corps under his command having daily received lessons on first aid to the wounded, which should prove of infinite service to all concerned when on the battlefield. We hope to be once more under weigh by 5 P.M., and should reach Cape Coast Castle in about five days' time.

Freetown is reported by the shore authorities to be in a very healthy condition at present. The officers are permitted to land; but the men, for obvious reasons, are kept safely on board. The days now are warm, but the nights, especially the time just before dawn, quite cool—so much so that most of our early risers sought this morning the comforts of a great-coat. The cool breeze (N.E.) sets in about 9 A.M. and lasts till 4 P.M. Freetown, although considerably larger than when I visited it some thirty years ago, seems to be sadly deficient in sanitary arrangements, whilst the roads and surface water channels present almost identical conditions to those observed by myself when visiting the town in 1862.

THE PUBLICATION OF PAPERS READ BEFORE THE ROYAL SOCIETY.

DR. PAVY has forwarded us the following reply to Professor Michael Foster, with a request for its publication in our columns:—

35, Grosvenor-street, Jan. 1st, 1896.

DEAR PROFESSOR FOSTER,—I beg to acknowledge the receipt of your letter of Dec. 21st, which you at the same time sent for publication to the medical journals. In the concluding paragraph you ask me not to think you "discourteous in desiring not to continue the correspondence." Your letter is in effect a reply to remarks I have made concerning you in my recently published "Epicriticism," bearing on the "Physiology of the Carbohydrates." As it happens that I cannot allow the matter to remain in the position in which you have sought to leave it, I on my part must ask you not to consider me discourteous in continuing the correspondence with the present letter, a copy of which, in accordance with the example you have set, I send for publication in the medical journals.

The question at issue is the procedure adopted in the case of a certain "paper" published in the Philosophical Transactions. Avowedly, in connexion with what was done, wrong was inflicted, inasmuch as the President and Council of the society recognised the justice of tendering their expression of regret. I pointed out that it was by the unauthorised action of the officers that the "paper" was published, and you say that you have the leave of the President to state that the point I raised is conceded. You afterwards contend that, though the initial step was wrong, the whole of the rest of the action taken in regard to the paper was conformable to the statutes. Your words run: "This point conceded, the whole of the rest of the action taken in regard to Dr. Paton's paper was conformable to the statutes. The President and Council, sitting as Committee of Papers, authorised the officers to 'refer' papers during the recess, and under this authority Dr. Paton's paper was referred to certain Fellows of the society, who, since they were 'knowing and well skilled in the particular branch of science to which the said paper' related, seemed likely to have been chosen referees by the Committee of Papers had it been sitting. The reports being favourable, the paper was, under a like authority, ordered for publication in accordance with the reports. This action of the officers, being reported to the Committee of Papers at its first meeting after the recess, was approved and confirmed. By that decision the President and Council, sitting as Committee of Papers, took from my brother officers and myself all responsibility; had the President and Council thought that the referees had been unwisely chosen it was in their power, and was, indeed, their duty, to undo what had been done and to reconsider the question of publication. They did not do so."

The words I have quoted convey the impression that what was subsequently done is to be looked upon as atoning for the error that was first committed. But the question comes, Was there not as much error in all the subsequent steps of procedure, which you detail as having been taken, as in the first? I am advised that there was; and that nowhere in the statutes is there to be found authority for empowering the "President and Council of the society sitting as Committee of Papers" to delegate the duty of referring papers to the officers. I submit that all that was done by you with respect to the nomination of referees was *ultra vires*, and therefore quite devoid of validity.

You touch in a manner with which I sympathise upon the injury to science that may be inflicted by the operation of a biased mind in the action taken for the Royal Society. The statutes wisely make provision to minimise the chance of the occurrence of an undue exercise of personal influence, and, under their observance, the opportunity is not presented for the weight of responsibility to which you refer being thrown upon the officers.

I must ask you to excuse the plain terms in which I have expressed myself to you. The importance of the matter has led me to speak in the unequivocal language I have used.

Yours faithfully,

To Professor Foster, Secretary, Royal Society. F. W. PAVY.

THE CASE OF MR. LIONEL SMITH.

WE desire to bring this case urgently before our readers. All the facts have been made public in our columns, and a brief recapitulation of them appeared in THE LANCET of Dec. 21st last.

Mr. Lionel Smith has been a deeply and terribly wronged man. Through Mr. Chamberlain's sympathy some measure of reparation is being made to him. He has been offered an appointment in Africa. He has a wife and children, who must accompany him, and he has not the necessary money to take himself and them to the post which he has decided, for their sakes, to accept.

We appeal to his medical brethren to make up that sum for him, and would remind them that to do so quickly would enhance the gift.

Cheques may be made payable to "The Lionel Smit Fund," and sent to us. The following are the subscriptions received up to Wednesday last:—

A Brother Medical Freemason	£3	3	0
A. R.	1	1	0
Mr. B. E. Brodhurst	2	2	0
Mr. W. Burdett-Coutts, M.P.	3	3	0
Dr. H. P. Cholmeley	1	1	
Dr. T. Kilner Clarke	2	2	
Dr. H. Connel	1	0	0
Mr. Davies-Colley	2	2	0
Dr. Clement Dukes	1	1	0
H. M.	5	0	0
Dr. Wm. R. Huggard	2	2	0
K. W. M.	0	10	6
Dr. J. S. S. Logie	1	1	0
Mr. J. G. Macoskie	0	5	0
Dr. A. G. Miller	0	10	0
R. D. B.	0	10	6
Dr. Fredk. W. Saunders	0	10	0
Dr. Schorstein	1	1	0
Dr. S. S. Sprigge	1	1	0
Per Dr. Sprigge—			
Anon	0	10	0
Mr. H. F. Chance	1	1	0
Major Charles Jones, R.A.	5	0	0
Mrs. A. E. Ross	1	1	0
The Proprietors of THE LANCET ...	10	10	0
Dr. Claude Wilson	1	0	0

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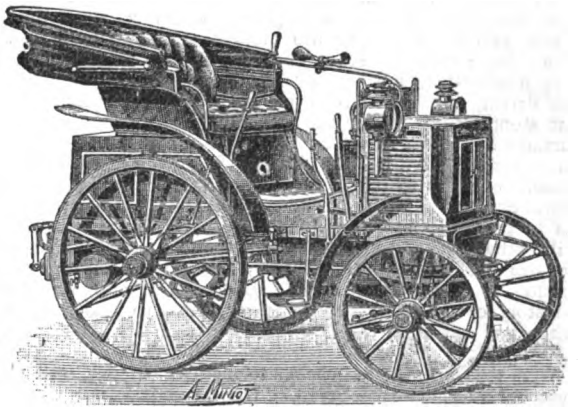
HORSELESS CARRIAGES FOR MEDICAL MEN.

As there is every probability that the efforts of Sir David Salomons, and others who are working with him, will result in the law, which hampers the use of motor carriages, being altered during the coming session, it may interest our readers to have the latest information respecting those types of motor vehicle which are most likely to prove serviceable to them. We have, therefore, obtained from a reliable source a description of the most promising horseless carriages exhibited at the Exposition Internationale de Vélocipédie et de Locomotion Automobile, which was opened in Paris about the middle of December. As the particulars were noted down from a careful inspection of all the vehicles, and written specially from the medical practitioner's point of view, we trust that they will prove of use.

Nearly all the carriages or machines exhibited are driven by petroleum or its allied oils and essences, but in a few cases steam is the motive power. Electricity is practically out of the running, although it is used with some of the petroleum motors to ignite the vapour. Among the leading exhibitors at the show is the firm of Les Fils de Peugeot Frères, who exhibit ten carriages, several of which are no less handsome in appearance than practically useful. The sitting accommodation is precisely the same as in corresponding horse carriages. An elegant *vis-à-vis* upholstered in pig-skin is shown, and another very similar vehicle upholstered in corduroy. A nice-looking victoria is upholstered in dark green, and a useful phaeton is also a noteworthy feature of the stand. Two or three other more or less similar vehicles are exhibited, some seated for two and some for four, and also one that may be described as a covered waggonette. But it goes without saying that all the carriages are four-wheeled. The steering is effected on what is known as the Olympia tricycle principle—that is to say, the two front wheels are pivoted vertically, quite independently of each other, but by means of a connecting-rod are made to turn simultaneously to exactly the same angle. This, with very slight modifications, is the principle adopted by most of the other makers as well. The firm of Les Fils de Peugeot Frères use the well-known Daimler petroleum motor, and place it under the back part of the carriage. That their vehicles are well-made and reliable is attested by the fact that in the 1894 race they took the first prize, and in the Paris-Bordeaux race of last summer the first, third, and fourth prizes. Rubber, but not pneumatic, tyres, are used, and the wheels are constructed on the bicycle principle with direct spokes. A steering pillar rises in front of the driver, and powerful brakes are fitted, besides which there is an arrangement for backing the carriage when occasion requires. The motors range from 2½ to 3½ horse-power, and the amount of oil consumed by those of the smaller size is about a quart and a half an hour.

Another very prominent firm is that of Messrs. Panhard and Levassor, one of whose carriages came in first in the Paris-Bordeaux race, although, owing to the conditions of the race, it only took second prize. The entire distance of 1200 kilometres was covered in 48 hours 48 minutes, or at a continuous average speed of over fifteen miles an hour. It is to be noted that this firm have recently appointed as their English agents the Daimler Motor Syndicate, Billiter-buildings, London, E.C., to whom intending purchasers in this country should apply. In general outlines many of the Panhard and Levassor carriages are not unlike those of Les Fils de Peugeot Frères, but the wheels are of wood and the tyres in some instances of iron, though more frequently of solid rubber. The Daimler petroleum motor is used, but is generally placed under the front part of the carriage, which Messrs. Panhard and Levassor consider is the best position. A lever is placed in front of the driver to steer by, another lever at the side to regulate the speed with, a third to back with, and a fourth to apply the brake to the tyres of the rear wheels. In addition, however, to this hand brake there are two pedals worked by the feet—not bicycle pedals, but more like those of a piano. The left-hand pedal disconnects the motor, so that it ceases to propel the carriage, though continuing to work, and the right-hand pedal applies a brake to a part of the gearing mechanism. It is easy, therefore, to stop the carriage immediately. The vehicle which came in first in the Paris-Bordeaux race is seated for two and looks somewhat heavy for so small a number of passengers. Another carriage on similar lines, but covered except at the sides, is also shown. There is a very nice hooded victoria, which would, no doubt, be useful to many medical men, but it is fitted with iron tyres. Among the other carriages on the stand are a covered waggonette and a phaeton, but perhaps the most interesting of all is a miniature carriage, running on four small, lightly-made, wooden wheels, fitted with pneumatic tyres. It is built very low and is comfortably seated for two, and when a covered carriage is not needed it could scarcely be surpassed for the purpose of anyone requiring a handy little vehicle. This carriage will run at a maximum speed of twenty to twenty-two kilometres an hour, and will go for eight hours without recharging. It has no arrangement for backing, but the weight is so comparatively small that it can easily be pushed back by hand. The cost of the benzoline for running this carriage is estimated at two to three centimes a kilometre, while that for the ordinary carriages of Messrs. Panhard and Levassor is about five centimes.

There are at the show three or four other miniature carriages, which, perhaps, the practitioner would find equally useful, though they are not all on exactly the same lines. One of these is made by the Gladiator Company, and, though only recently introduced, is taking so well that the makers state they received no less than ninety-six orders for this particular type during the first four days of the show. It could not, without stretching the usual acceptation of the word, be described as a "cycle," but it is constructed more on



Carriage which arrived first in the Paris-Bordeaux race.

cycle lines than are the larger and heavier vehicles. Running on four small pneumatic-tyred, tangent-spoked wheels, and driven by a petroleum motor of four horse-power, it will travel at the rate of thirteen miles an hour for fifteen hours without recharging, or is capable of attaining a maximum speed of twenty-five miles an hour. The estimated cost of running it is 8 centimes a kilometre, or between 1¼*d.* and 1½*d.* a mile. It can either be arranged to carry four, with the two seats *vis-à-vis*, or the front seat can be removed and luggage carried in its place. The weight is about 405 lb. A charming miniature carriage is also shown by M. A. Loyal, and the working parts of this machine appear to be simpler than is usually the case. The petroleum motor drives directly on to the rear axle by means of oscillating cylinders, instead of through the medium of chains or cog-wheels. Pneumatic tyres are fitted. The speed is variable, ranging from twelve to thirty kilometres an hour. Other carriages on lines not unlike those already mentioned are exhibited by M. E. Delahaye, Messrs. Landry and Beyroux, M. E. Rossel, M. E. Roger, M. H Vallée, La Compagnie de Voitures sans Chevaux, M. H. Tenting, M. P. Gautier, and Messrs. Vincke and Delmer of Brussels. Covered carriages are not much in evidence, but many of the vehicles have hoods.

It is scarcely necessary to speak of the motor bicycles, which are hardly adapted for a medical man's use. But the motor tricycles might in some cases be serviceable. Messrs. De Dion and Bouton exhibit what appears to be a thoroughly practical petroleum tricycle, with the motor behind, the electric battery for igniting the vapour being hung from the top tube, and the triangular oil reservoir

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attached to the back of the diagonal tube. Pedals are fitted, by means of which the rider can start the machine or assist it up-hill, but on level roads the pedals are disengaged from the driving gear and serve merely as foot-rests. This machine, which is built on the lines of the up-to-date modern tricycle, weighs about 130 lb. and will attain a speed on good roads of fifteen to twenty miles an hour. It will go for ten hours without recharging, and without the assistance of the rider will ascend inclines of 6 in 100. The Gladiator petroleum tricycle is built on rather different lines, having two steering wheels in front and but one driving wheel behind. It weighs about 1 cwt. and will travel up to nineteen or twenty miles an hour, costing approximately 6 centimes a kilometre. Of the very few steam-propelled carriages and cycles at the show the only one worth mentioning from our point of view is that made by M. Dalifol, and even that, if it comes up to the maker's claims, would perhaps rather be suitable for the "scorching" cyclist than for the steady-going practitioner, as the speed attainable is stated to be from thirty to forty kilometres an hour. This machine is a small quadricycle with a comfortable seat for two, and certainly has a wonderfully neat and simple appearance for a steam-propelled carriage. Petroleum is used as the fuel for generating the steam.

In nearly all the motor carriages, as distinct from the motor cycles, the bulk of the driving mechanism is placed underneath the body of the carriage and is hardly visible The power of the motor is usually transmitted to the rear axle by means of two chains, one on each side of the carriage, and as high-speed motors are commonly used the speed is generally geared down a good deal. When petroleum motors are employed a handle is provided by which to start the carriage until the motor gets into action, but when the arrangement is such that the driving mechanism can be thrown out of gear without stopping the motor there is no necessity to start the carriage by hand every time it is pulled up. This is rather an important point for the medical practitioner who has a number of visits to make. In proper hands a well-designed motor carriage is more under control than a horse carriage. As to prices, it may fairly be anticipated that a reduction will take place when the machines come into more general use, but at present the following is an approximation to the figures asked: For a handsome victoria, phaeton, or other full-sized carriage, £200 to £250; for a miniature carriage, £130 to £200; and for a tricycle, £50 to £80.

With regard to the drawbacks to motor carriages, we have detected very little odour from the petroleum, but we are inclined to think that the complication of the driving mechanism and the amount of technical knowledge required by the driver are under-estimated by some. It may be simple enough to work the carriage as long as all goes right, but an allowance must be made for things sometimes going wrong. As an example of the untoward occurrences that may happen, the driving gear may get clogged with mud; when, therefore, as is often the case, a good deal of the mechanism is exposed, we should recommend the intending purchaser to make particular inquiries on this point. It also has to be considered whether a supply of benzoline, or whatever oil is used, can easily be obtained. Considerable vibration is felt in some of the carriages, especially when the carriage is at rest, but the motor is working. But in spite of these and other possible drawbacks we believe that the motor carriage in some of its forms will prove to be admirably suited for the requirements of medical men and will not be long in coming into extensive use.

LITERARY INTELLIGENCE.—The following works are announced by Messrs. J. & A. Churchill to appear during the present month:—"A Handbook on Leprosy," by S. P. Impey, M.D., M.C., late Chief and Medical Superintendent, Robben Island Leper and Lunatic Asylums, Cape Colony, South Africa, with coloured map and thirty-eight photographs; "A History of the Cholera Controversy," by Sir George Johnson, M.D., F.R.S.; a new work on "The Theory and Practice of Hygiene," by Professor Lane Notter, M.D., and R. H. Firth, F.R.C.S., of the Army Medical School, Netley; a third edition of Jacobson's "Operations in Surgery"; and a fourth edition of Clouston's "Mental Diseases."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Fever in the Borough of Bury, by Dr. MONCKTON COPEMAN.[1]—The fatality from "fever" indicated in the mortality returns of the Registrar-General towards the close of 1894 led to this inquiry, and it transpired that attacks and deaths from so-called continued fever were as a matter of fact due to typhus fever, a disease which happily is becoming rare in the extreme in England and Wales. Dr. Copeman discusses the disease largely in its clinical aspects, and he issues in the form of a genealogical tree the outcome of his investigations as to the origin of the disease and its subsequent diffusion in Bury. This shows that the disease had been many months in spreading, and that it would probably have been early detected had there been any one person at the isolation hospital who was responsible for preparing any clinical record of the cases, which, as often is very properly the case, were actually attended by their own medical advisers. The first patient infected two others; these two led to five other attacks, and so the matter went on until between twenty and thirty cases had occurred. Bury, unfortunately, has sanitary areas which lend themselves to the diffusion of an infection like that of typhus fever, and though during the last few years a number of insanitary dwellings have been either closed or pulled down under the Housing of the Working Classes Act, yet much evidently remains to be done as soon as a sufficiency of new dwellings has been provided to prevent overcrowding in those that remain. Risk of such overcrowding is great in a town where middle-class houses are apt to be let off room by room in separate tenements. Dr. Copeman discusses in this report all the general sanitary circumstances of the district, but the main interest of it lies in the detection of typhus fever as a cause of unexpected disease and death, and in the confirmation afforded of this view both by the clinical aspect of the cases and by the circumstances under which it spread from person to person.

Diphtheria in and about Bideford, Barnstaple, and Ilfracombe, by Dr. R. J. REECE.—This report deals in very great detail with the whole of the sanitary circumstances with which a somewhat maintained prevalence of diphtheria was associated. Barnstaple rural district suffered most. Thus, in 1893 there were 67 cases and 13 deaths, and in the early part of 1894 23 cases and 8 deaths from that disease in the district. The history of nearly every attack heard of in that district is carefully discussed by Dr. Reece in relation to topography, soil, milk-supply, school influence and other sources of personal infection, and the relation of the disease to maladies such as were assumed to be "mumps," &c., but the difficulty of getting information sufficiently trustworthy for etiological purposes seems to have been very great. One thing, however, is certain, the schools were largely instrumental in spreading the disease; and there had prevailed antecedently to the recognised diphtheria a number of maladies, such as sore-throat, quinsy, mumps, &c. It is just in a maze of this sort that the beginnings of diphtheria are so often lost. The descriptions which are given in the report of the prevailing sanitary circumstances should be very helpful to the local authorities in dealing with conditions which need amendment quite apart from the question of proving that these were actually the cause or not of given occurrences of disease.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

St. George's, Hanover-square.—In his twenty-third annual report on the health of St. George's, Hanover-square, Professor Corfield makes the following remarks in regard to enteric fever in his district during 1894: "Of the 65 cases of enteric fever no fewer than 29 were certified in November and December, and only 14 in the *three* previous months, when the seasonal prevalence of that disease usually takes

[1] Eyre and Spottiswoode, East Harding-street, E.C.; John Menzies and Co., Edinburgh and Glasgow; Hodges, Figgis, and Co., Dublin. Price 1s.

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place, and on investigation I find that this is usually the case, as is shown by the following table:—

Cases of Enteric Fever.

Year.	August, September, and October.		November and December.	
	No. of cases.	Average per month.	No. of cases.	Average per month.
1891	6	2·0	12	6·0
1892	15	5·0	15	7·5
1893	16	5·3	18	9·0
1894	14	4·6	29	14·5

"This follows upon the delivery of insufficiently filtered Thames water when the river is in flood, which was especially noticeable last year, the samples taken in November being very bad indeed." These figures are interesting and are worth continuing year by year and of being carried back to former years. The figures are of course small, and in order to establish a case against the Thames water from this standpoint it will be necessary to compare them week by week with the condition of the river as regards flood and to make due allowance for the distribution of the filtrate and the incubation periods of the cases. There are, in fact, many complicated factors involved, but the figures are well worthy of being placed on record. It would seem from Professor Corfield's figures that the Thames, during at least the last four years, has been in flood at apparently the same season of the year, but more especially so during 1894. Assuming defective filtration to be responsible for the increase of the enteric fever observed, it is possible that those parts of metropolitan sanitary districts supplied by different water companies would show some variations in regard to their enteric fever incidence after floods in the Thames valleys, as it is hardly probable that exactly the same methods of storage, filtration and distribution are adopted by the several water companies. Comparisons such as these would, however, be best brought out by dealing with the London statistics as a whole and by contrasting them with those of other communities deriving their drinking-water from rivers liable to sewage pollution. We have indeed reason for believing that a very careful inquiry in the sense indicated was during the summer of the present year undertaken by the medical officer of health to the London County Council, and it would be extremely interesting to learn how his results compare with the observations contained in Professor Corfield's report.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 3977 births and 3881 deaths were registered during the week ending Dec. 28th. The annual rate of mortality in these towns, which had been 17·8 and 18·6 per 1000 in the two preceding weeks, further rose last week to 19·1. In London the rate was 17·8 per 1000, while it averaged 20·0 in the thirty-two provincial towns. The lowest rates in these towns were 10·5 in Huddersfield, 12·1 in Cardiff, 12·2 in Brighton, 12·3 in Croydon, and 13·6 in Gateshead; the highest rates were 22·7 in Birmingham, 25·4 in Manchester, 25·5 in Wolverhampton, 26·1 in Liverpool, and 27·3 in Salford. The 3881 deaths included 544 which were referred to the principal zymotic diseases, against 524 and 593 in the two preceding weeks; of these, 207 resulted from measles, 107 from diphtheria, 90 from whooping-cough, 51 from "fever" (principally enteric), 48 from scarlet fever, 39 from diarrhœa, and 2 from small-pox. No fatal case of any of these diseases was recorded either in Croydon or in Huddersfield; in the other towns they caused the lowest death-rates in Birkenhead, Gateshead, Portsmouth, Nottingham, and Sheffield, and the highest rates in Blackburn, Liverpool, Burnley, and Salford. The greatest mortality from measles occurred in Leicester, Oldham, Liverpool, Burnley, Blackburn, and Salford; from scarlet fever in Burnley and Bolton; from whooping-cough in Liverpool, Manchester, and Bradford; and from "fever" in Derby. The 107 deaths from diphtheria included 71 in London, 8 in Manchester, 7 in Birmingham, and 3 each in Liverpool, Burnley, and Newcastle-upon-Tyne. One fatal case of small-pox was registered in London and 1 in Birmingham, but not one in any other of the thirty-three large towns. There were 77 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, Dec. 28th, against 87, 89, and 82, at the end of the three preceding weeks; 12 new cases were admitted during the week, against 18 and 5 in the two preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2798, against 2805, 2800, and 2725 on the three preceding Saturdays; 184 new cases were admitted during the week, against 312, 329, and 210 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 264 and 291 in the two preceding weeks, further rose to 318 last week, but were 315 below the corrected average. The causes of 79, or 2·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Nottingham, Bradford, Newcastle-upon-Tyne, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Burnley, Preston Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·9 and 19·2 per 1000 in the two preceding weeks, further rose to 20·0 during the week ending Dec. 28th, and exceeded by 0·9 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·7 in Perth and 15·7 in Leith to 21·0 in Glasgow and 32·7 in Greenock. The 578 deaths in these towns included 35 which were referred to whooping-cough, 14 to diarrhœa, 9 to scarlet fever, 7 to measles, 7 to "fever," 5 to diphtheria, and not one to small-pox. In all, 77 deaths resulted from these principal zymotic diseases, against 68 and 83 in the two preceding weeks. These 77 deaths were equal to an annual rate of 2·7 per 1000, which corresponded with the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 24 and 23 in the two preceding weeks, rose again to 35 last week, of which 20 occurred in Glasgow, 7 in Aberdeen, 3 in Edinburgh, and 3 in Dundee. The deaths from scarlet fever, which had been 8 and 13 in the two preceding weeks, declined again to 9 last week, and included 3 in Aberdeen. The 7 deaths referred to different forms of "fever" were within one of the number in the preceding week, and included 3 in Glasgow and 3 in Edinburgh. The fatal cases of measles, which had risen from 1 to 17 in the four preceding weeks, declined to 7 last week, of which 3 occurred in Glasgow and 2 in Greenock. The deaths from diphtheria, which had been 5 and 11 in the two preceding weeks, declined again to 5 last week, and included 2 in Glasgow and 2 in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 97 and 103 in the two preceding weeks, further rose to 142 last week, and slightly exceeded the number in the corresponding week of last year. The causes of 39, or nearly 7 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the three preceding weeks from 20·1 to 25·1 per 1000, declined again to 23·3 during the week ending Dec. 28th. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the city averaged 24·0 per 1000, the rate during the same period being 18·0 in London and 17·2 in Edinburgh. The 156 deaths registered in Dublin during the week under notice showed a decline of 12 from the number in the preceding week, and included 3 which were referred to the principal zymotic diseases, against 8 in each of the two preceding weeks; of these, 1 resulted from small-pox, 1 from diphtheria, and 1 from "fever," but not one either from measles, scarlet fever, whooping-cough, or diarrhœa. These 3 deaths were equal to an annual rate of 0·4 per 1000, the zymotic death-rate during the same period being 3·0 in London and 2·3 in Edinburgh. The mortality from diphtheria corresponded with that recorded in the preceding week, while that from "fever" showed a decline. The death from small-pox last week raised the total number of fatal cases during the quarter to 8, against 78, 23, and 12 in the first three quarters of 1895. The 156 deaths in

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Dublin last week included 10 of infants under one year of age, and 51 of persons aged upwards of sixty years; the deaths of infants showed a marked decline, while those of elderly persons showed a further increase upon recent weekly numbers. Nine inquest cases and 7 deaths from violence were registered; and 52, or one third, of the deaths occurred in public institutions. The causes of 10, or more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL QUILL has been appointed to the Medical Charge of the Station Hospital at Chatham. The following officers have embarked for Barbadoes:—Surgeon-Majors McLaughlin and Risk and Surgeon-Captains Dobson and Will. The following officers, in addition to those already notified, have embarked for a tour of service in India:—Surgeon-Lieutenant-Colonel Smith and Surgeon-Major Feltham. Surgeon-Majors Macneece and Baker and Surgeon-Captain Corkery have arrived at Bermuda. Surgeon-Captain Bullen has been posted to Cork, and Surgeon-Captain Green to Newry. Surgeon-Captain Reid has been transferred from Netley to Colchester.

ARMY MEDICAL STAFF.

Surgeon-Colonel Thomas Maunsell to be Surgeon-Major-General, vice J. Inkson, M.D., retired. Brigade-Surgeon-Lieutenant-Colonel Thomas O'Farrell, M.D., to be Surgeon-Colonel, vice T. Maunsell. Surgeon-Major Arthur M. Kavanagh is placed on temporary half-pay on account of ill-health.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Captain B. H. Deare is appointed to act as Deputy Sanitary Commissioner, Metropolitan and Eastern Bengal Circles until further orders. Surgeon-Captain F. P. Maynard, at present employed in the Gaol Department, is appointed to do supernumerary duty at the Presidency and is attached to the Presidency General Hospital. Brigade-Surgeon-Lieutenant-Colonel F. C. Nicholson, Civil Surgeon, of Patna, on leave, is appointed, on the expiry of his leave, to act as Civil Surgeon of Champaran. Surgeon-Major H. G. L. Wortabet, Madras Establishment, Medical Officer, 3rd Infantry, is appointed to be Medical Officer, vice Brigade-Surgeon-Lieutenant-Colonel J. F. Sargent, deceased. Surgeon-Majors C. G. W. Lowdell and A. V. Anderson have respectively delivered over and received charge of the office of the Deputy Sanitary Commissioner, Western Registration District. Surgeon-Major J. W. T. Anderson and Surgeon-Captain W. Carr Sprague have respectively delivered over and received charge of the Aden Prison Gaol. Surgeon-Captain N. P. Sinha, Deputy Sanitary Commissioner, Western Bengal Circle, on leave, is appointed to be Civil Surgeon of Noakhali.

NAVAL MEDICAL SERVICE.

The following appointments are notified:—Staff-Surgeon G. F. Wales to the *Pallas*, and Surgeon G. F. Dean to the *Wildfire* (additional) for *Sans Pareil*.

ARMY MEDICAL RESERVE OF OFFICERS.

The undermentioned officers to be Surgeon-Lieutenants:—Surgeon-Lieutenant Sydney Monckton Copeman, M.D., 2nd London Rifle Volunteers, and Surgeon-Lieutenant John Herbert Stacy, 1st Volunteer Battalion the Norfolk Regiment.

VOLUNTEER CORPS.

Artillery: 1st Gloucestershire: Walter James Hill, gent., to be Surgeon-Lieutenant. 1st Newcastle-on-Tyne (Western Division Royal Artillery): Quartermaster J. D. Farquharson, M.B., is appointed Surgeon-Lieutenant. *Rifle:* 2nd Volunteer Battalion the King's Liverpool Regiment: Surgeon-Captain G. Westby to be Surgeon-Major. 1st Volunteer Battalion, the Essex Regiment: Surgeon-Lieutenant A. R. H. Oakley to be Surgeon-Captain. 24th Middlesex: Charles Ranald Handfield-Jones, gent., to be Surgeon-Lieutenant.

TREATMENT "BY ORDER" IN THE FRENCH ARMY.

The principal medical officer of the Fourteenth Army Corps has issued a circular in which he reminds all medical officers serving under him that if they neglect cold baths in the treatment of typhoid fever they are taking on themselves a grave responsibility. It would seem that this kind of treatment "by order" is rather common in the French medical department. In another army corps there is said to be an official prescription for use in every form of dysentery; and in a third, if the junior medical officers wish for advancement, they are bound to treat fevers with digitalis. Complaints continue to reach us from many sources regarding the discontent which undoubtedly prevails throughout the military medical service in France, but the grievances alluded to have, for the most part, an extraneous origin. If, however, the above-mentioned facts are exact, internal reform is evidently quite as much needed as liberation from external trammels. In this connexion we note with satisfaction that a deputy named Bazille proposes the nomination by the Chamber of a Commission composed of thirty-three members, in order that an exhaustive inquiry into the organisation of the various bureaux at the War Office may be instituted, with especial reference to that of the sanitary services.

THE SURPLUS AND THE SERVICES.

The Chancellor of the Exchequer will be beset, we may be sure, with all sort of claims upon him in regard to the disposal of the surplus that will remain in his hands at the end of the financial year. At a time when wars and rumours of wars are in the air and the new year opens with all kinds of difficulties and unexpected developments in connexion with the United States, Turkey and Armenia, the Transvaal crisis, and the Ashanti Expedition, the strengthening of our naval and military forces will, no doubt, have the first claim upon his consideration. It is an old and trite saying, of which recent events have shown the truth, that the unexpected is that which happens, and statesmen must in these days be prepared for almost any eventuality. The navy will probably be increased and developed, and the army will also claim its share of the surplus. We hope that when their claims come to be considered the sanitary state of both, the maintenance of the health of our seamen and soldiers, and the efficiency of the medical services will not be lost sight of by the Chancellor of the Exchequer.

THE WEIGHT TO BE CARRIED BY SOLDIERS.

The *Army and Navy Gazette*, alluding to the weights carried by infantry soldiers in the French and German armies and by those of the British army, has started a useful inquiry as to what is the essential minimum weight which a soldier should carry consistently with his own health and comfort, assuming that the main amount of the kit, &c., be conveyed by train and transport waggons. Our service contemporary elicits information on the subject and puts its questions categorically. As the matter is one affecting the health and personal hygiene of an army so largely composed of very young soldiers it may be interesting to reproduce these questions. 1. Is it necessary at the present day to put such great weight upon the soldier's back as in the days when roads were bad and rails did not exist? 2. Is not a heavily-weighted soldier at a disadvantage compared to one without pack or valise? 3. What articles must be carried by a soldier, and of what aggregate weight? 4. What other articles should be provided for a soldier in the field, and how should they be carried?

THE MILITARY HOSPITALS AT PORTSMOUTH.

The Admiralty has been for some time arranging to include an extended area within the limits of the dockyard, and have now commenced negotiations with the War Office for the acquisition of the military station hospital at Portsea. The present area of the establishment is 293 acres, but it is proposed to add sixty-two acres of (chiefly) War Department land. On the new area are the warders' quarters, which have been closed since the convict prison was evacuated; the volunteer drill-hall, which is to be built on another site; and Anglesea Barracks. Plans have been prepared for the building of new barracks at Gosport when the Anglesea quarters have been turned over to the Admiralty. The inclusion of the station hospital in the plan is, however, only of recent date. It is proposed to use it as part of the new naval barracks, and it will be replaced by a military hospital for the troops at Hilsea.

DEATHS IN THE SERVICES.

Fleet-Surgeon St. Lawrence Ffrench-Mullen, R. N. (retired), M.D. R.U.I., on Dec. 28th, 1895, at his residence in Dublin. He was educated at the Christian Brothers' Schools and at St. Jarlath's College, Tuam, the town in which he was born, receiving his medical education at Queen's College,

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Galway. After graduating in 1868 he entered the Royal Naval Service, serving in the *Hercules*, the *Chameleon*, the *Excellent*, and the *Rupert*. He was afterwards appointed to the Royal Naval Hospital at Malta. He also served in North America and in the West Indian station, and retired in 1888, after attaining the rank of Fleet-surgeon. Of late years he took an active part in political matters.

NEW YEAR HONOURS IN THE SERVICES.

Among the recipients of New Year honours in the Services are Sir Joseph Fayrer, K.C.S.I., LL.D., M.D., F.R.S. (to whom we have alluded in another column), and Surgeon-Lieutenant-Colonel Samuel Haslett Browne, M.D. The former gentleman has been made a baronet, and the latter a Companion of the Most Eminent Order of the Indian Empire.

Correspondence.

"Audi alteram partem."

MONUMENT TO PASTEUR.

To the Editors of THE LANCET.

SIRS,—The town of Dôle (Jura), the birthplace of Louis Pasteur, has decided to erect a monument to that great man. A committee, at the head of which is M. Felix Faure, President of the Republic, and many of the present Cabinet, Senators, and Deputies, has been formed, and a list of subscriptions opened throughout the civilised world. The French Chamber of Commerce in London has been requested to take the necessary steps to bring this subscription to the notice of the British public; and we shall be thankful if you will kindly help us in the matter. The work of Pasteur has been fully recognised in England, where his admirers are very numerous and many will cherish his memory to the end of their days. We feel certain that in this universal manifestation of gratefulness towards a benefactor of mankind Englishmen will respond liberally. Our President, M. Marius Duché, Monument-house, E.C., in conjunction with the whole of our committee, will be pleased to receive all donations, which will be acknowledged in the press, and should any representative men desire to join our committee we shall be pleased to accept their aid.—I am, Sirs, yours respectfully,

Chambre de Commerce Française de Londres, Monument House, E.C., Jan. 2nd, 1896. LÉON CLERC.

PRESIDENT CLEVELAND'S MESSAGE FROM A PSYCHOLOGICAL POINT OF VIEW.

To the Editors of THE LANCET.

SIRS,—The action of President Cleveland in sending to Congress a Message so menacing to England is so extraordinary that everyone is asking "Why did he do it?" Various motives, political and personal, have been attributed to him, and his action has been termed a blunder or a crime; but it seems to me that his conduct is almost inexplicable, except on the supposition that he is a clear-headed, high-minded man, determined at any cost to himself to prevent a war between the United States and England—a war which would be so disastrous in its results and at the same time so trivial in its origin that it might well be termed the greatest crime of the century. The existence of a strong feeling against England in the United States is evidenced by the warm—one might almost say enthusiastic—reception of the President's Message, and such a feeling might readily be fanned by Jingo politicians and newspapers for party purposes during the coming elections until it reached fever heat and embroiled both countries in a war. More especially might this occur as the currency question is one of the great difficulties of American politics. America has almost unlimited supplies of silver, but lacks gold, whereas Great Britain's colonies produce gold largely, and some of the territories in Venezuela now in dispute are auriferous. It has been said in America that a war between that country and England would mean destruction to the British Empire, and by some the hope may have been entertained, if not expressed, that in the dismemberment of this great Empire the United States might acquire auriferous territories and thus solve the currency problem. Others may have thought that the same end might be gained by the submission of England to the award of arbitrators giving to Venezuela gold-bearing districts over which the United States might establish a protectorate. To avoid such a calamitous war, as one between England and America will certainly prove, it may be supposed by many Americans that England will submit to any dictation, and such an idea is not unlikely to be fostered by some sections of the American Press. But President Cleveland, by putting into his Message the only possible answer that England could make to such a proposition, has taken care that the true state of the case shall be apparent to every American citizen, for it is almost impossible to misread the concluding words of his message: "There is no calamity which a great nation can invite which equals that which follows supine submission to wrong and injustice and a consequent loss of material self-respect and honour beneath which is shielded and defended the people's safety and greatness."

And what better time could have been chosen for a message—apparently warlike, but really pacific—than just long enough before Christmas to allow it to be discussed in both countries under the influence of the religious feeling of both countries—strong at all times, but especially powerful at the season of which the watchword is "Peace on earth, good will toward men." Let us hope that both countries will take the timely warning which the President's Message has given them, and avoid the war into which they might have drifted.—I am, Sirs, yours faithfully,

T. LAUDER BRUNTON.

Stratford-place, Cavendish-square, W., Jan. 1st, 1896.

"THE UTILITY OF FIRST AID."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 7th, 1895, an interesting annotation on the above subject cannot fail to attract the attention of the members of the profession who devote some of their spare time to the teaching of "first aid to the injured" and of ambulance work in general. For a long time it has been a pleasure to me to participate in such tutorial work, and in connexion with "railway ambulance" I may venture to say that on the South-Eastern Railway, with the kind and courteous coöperation and approval of Sir Myles Fenton, I have instructed three railway classes, one in Tunbridge Wells, one at Tonbridge Junction, and a third at Dunton-green Junction, in every case with good results, especially at Tonbridge, where the total number of candidates who presented themselves for examination were one and all successful. In April, 1894, I drew up a scheme of "railway ambulance" with a view to the formation of a "South-Eastern Railway Ambulance Department," the headquarters of which would be at London Bridge Station, under the supervision of an "inspecting officer of ambulance," who would be a surgeon of some experience of military or civil organisation and of transport duties. Ambulance store depôts were to be established along the line at junction stations in the charge of a man specially qualified to take up the duty; at smaller stations an ambulance store-box would be kept in a conspicuous position by the station-master, and every train would carry in the guard's van a small case containing splints, bandages, lint, Esmarch's elastic tube tourniquet, &c. At large stations local medical gentlemen would act as "instructors" of railway ambulance classes. The duties of the "inspecting medical officer" would entail periodic inspections of all railway men qualified to render "first aid," and to report on their fitness or otherwise to the general manager and directors of the companies, to inspect all ambulance stores and *matériel*, and to give courses of lectures and instruction at the London stations of the company. In order to stimulate public interest and support in railway ambulance work, "ambulance competitions" should be held at important stations, and the public given an opportunity of estimating the practical utility of such work. The above suggestions were submitted to the general manager of the South-Eastern Railway Company, and I was greatly encouraged by the courteous consideration they received. Having carefully studied the railway accident reports of the Board of Trade, I feel convinced that if railway officers and men are better instructed in "first aid," and if the travelling public are more careful in entering and alighting from trains—the commonest cause of platform injuries—the fatality of ordinary railway accidents and injuries, apart

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from causes beyond the control of railway officials and passengers, will be very considerably diminished. I hope ere long to be able to forward you a "notebook" dealing with railway "first-aid" work, which, I think, will be of some practical use to railway servants and others interested in the subject. With apologies for trespassing on your time and space,—I am, Sirs, yours obediently,

N. HAY FORBES, F.R.C.S. Edin. (Exam.),
Examiner, St. John Ambulance Association; formerly Surgeon, H.M. Army Medical Staff.

Tunbridge Wells, Dec. 9th, 1895.

ANÆMIA OR ANEMIA?

To the Editors of THE LANCET.

SIRS,—Spelling is, at the present time, a prominent subject. It has a special interest for us now that so many medical books, printed in the United States, present to us spelling which we are not yet sufficiently familiar with to appreciate. The readers of THE LANCET may be interested in the following letter from Professor Skeat, which he has been so good as to give me permission to send to you. The spelling of the word "anemia" carries with it that of many others. I am, Sirs, yours faithfully,

W. R. GOWERS.

"DEAR SIR,—It is quite impossible to regulate spelling. The one great principle in all cases of doubt and dispute is that every man shall make his own laws, and it is not likely that argument will be listened to or even permitted. In the New English Dictionary the spelling given is *anæmia;* all the same, the spelling *anemia* occurs in one of the examples. It is largely a question of date. The Latin *ae* became *e* in French; and when words come into English through French the spelling *e* may easily prevail. For example, we have the word *primeval* on a French model. I am trying to introduce the spelling *medieval*, to pair off with this; and I think it is making some headway. We have, in Cambridge, a 'Medieval and Modern Languages Tripos.' The practical objection to *æ* and *œ* is that they are difficult to write and print. In many cases an *e* would serve the purpose. I need not say that the Authorised Version of the English Bible (by many considered as a good authority) has the form *emerods* instead of *hæmorrhoids;* yet no one objects. Ogilvie's Dictionary prefers *hemorrhoids* to *hæmorrhoids*, and, I think, with reason. There is no *œ* or *æ* in English; it is always pronounced as *e*, and might just as well be so written. The use of writing is to represent the sound of the words, not to be everlastingly harping upon the Greek and Latin forms. But few people can see this; and when a thing is wrong they stick to it all the same. Thus *aneurism* is common, and I like it and admit it. But it is false etymology; of course, it should be *aneurysm*. And the question for those who defend *hæmorrhage* is, Will you, then, undertake to use the form *aneurysm?* If not, why not? I pause for a reply. No one now writes *cœlestial*, yet it is from the Latin *caelum*. Again I ask, why not?—Yours sincerely,

"Cambridge, Dec. 15th, 1895. "(Sd.) W. W. SKEAT."

"MASON v. HADDEN."

To the Editors of THE LANCET.

SIRS,—The particulars of this action at law, in which a medical man was sued for damages in consequence of his having notified a case under the Infectious Diseases Notification Act which he had reasonable grounds for regarding as one of small-pox, will be within your recollection; also that a jury awarded damages to the plaintiff, but that on appeal the verdict was reversed by the full Court. We were previously advised that any public discussion of the matter by the medical profession would be undesirable, fearing that doing so might in any way prejudice the case. The judgment of the full Court justifies Dr. Hadden and relieves him from any imputation whatever. In addition to the anxiety and trouble necessarily caused to him while the action was pending, the question of expense has to be considered. Dr. Hadden has already incurred a large pecuniary liability, and as he fought this case on professional and public as well as on private grounds, we feel that he should not be allowed to suffer any loss; therefore we readily ask our professional brethren to join in a subscription to meet any such expense. The issues raised have had an interest far beyond an individual one, and have induced Dr. Hadden to contest the case on broad public grounds, for had the contention of the plaintiff in this matter remained unchallenged a blow would have been struck at public safety as well as at the independence of medical men.

If a physician is to be proceeded against for the discharge of a duty cast upon him by an Act of Parliament passed for the protection of the public at large, it would seriously interfere with the profession in carrying out the law and in protecting the public as they are bound to do. We feel that both the moral and substantial support of his profession should be accorded to Dr. Hadden in the trying position in which he has been placed. The Act referred to is already unpopular enough with many persons, and if a new terror in the shape of actions for damages against medical men for carrying out the duty cast on them, and for which they are made legally liable, be introduced it is to be feared that many will be deterred from obeying the law to its full extent.

Subscriptions, limited to one guinea, will be received and acknowledged by James Craig, M.D., 35, York-street, Dublin, who has consented to act as honorary treasurer.

(Signed) THOMAS W. GRIMSHAW,
President, Royal College of Physicians, Ireland.
THORNLEY STOKER,
President, Royal College of Surgeons, Ireland.
JAMES LITTLE,
President, Royal Academy of Medicine, Ireland.
AUSTIN MELDON,
President, Irish Medical Association.
H. R. SWANZY,
President, Dublin Branch, British Medical Association.
E. H. BENNETT,
Professor of Surgery, University of Dublin.
WM. THOMSON,
Senator, Royal University of Ireland.

"THE CASE OF DR. WIGHT."

To the Editors of THE LANCET.

SIRS,—*Apropos* of your excellent leading article in THE LANCET of Dec. 7th, 1895, on Dr. Wight, let me relate the following case which occurred in my practice some time ago. It was a case of placenta prævia, presenting the usual features of such cases—viz., hæmorrhage recurring at uncertain intervals for several weeks. Delivery was finally effected by version. The child was alive, and I found the placenta in the vagina and removed it without difficulty. I congratulated myself on the satisfactory termination of so anxious and troublesome a case. Alas, I reckoned without my host; my exultation was a little too premature, for in a short time unmistakable symptoms of internal hæmorrhage made their appearance. I introduced my hand and was horrified to find an extensive laceration of the uterus posteriorly. I administered restoratives—stimulants, &c.—both by mouth and rectum, more by the way of satisfying the friends that means were being used than from any hope of real benefit, as I knew nothing could save her. She died within an hour. I am utterly at a loss to account for this rupture. I have turned in some scores of cases, and seldom have I done so with less difficulty. The parts were soft and dilatable, and no force was required either in introducing the hand or in extracting the child. The only trouble I had was, the placental presentation being complete, that my fingers got entangled in the membranes and required a little gentle manipulation to extricate them. It is an unusual case, for everyone who has had much experience of midwifery knows that the uterus is an organ that will stand a good deal of rough handling innocuously. It is interesting, too, from a legal point of view, as one can easily fancy an action—either civil or criminal—arising out of such a case.

I am, Sirs, yours truly,

J. BRISBANE, M.D. Glasg.

St. John's Wood-road, N.W., Dec. 7th, 1895.

SIR HENRY HALFORD, BART., AND THE STETHOSCOPE.

To the Editors of THE LANCET.

SIRS,—There is a letter in "The Life of Sir H. Halford, Bart.," which, I think, must have more interest for those who like studying the progress of scientific medicine than any other letter in Dr. Munk's interesting work. It is the one to Dr. Sudamore (page 270), which gives us some idea

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of the feeling that prevailed amongst the leading physicians in this country when the stethoscope was introduced to them. I write now to draw attention to the necessity which still exists for some scientific inquiry into the principles upon which the stethoscope should be constructed. It is clear that Sir H. Halford felt very doubtful whether we could use the sense of hearing to much advantage in the diagnosis of disease. With him it was the sight and the touch and the accounts given by sufferers that afforded all that was best for diagnosis. But that it was possible to use the ear to practical good seemed to him very reasonable, and those who can recall the way in which the stethoscope was handled by many of the physicians of the second quarter of this century, and even later, can well conceive what most of Sir H. Halford's contemporaries must have thought of it. I am thinking now of a conversation I had with my friend, the late Dr. Stone, not long before he died. If he had lived we should have had from him some valuable contributions to the understanding of how the ear can best be used to diagnose disease, for Dr. Stone was a great authority on the science of acoustics. What difference there is between the sounds that pass in a tube and those that pass along solid material is of chief importance in the construction of the stethoscope; and to me it was a matter of great interest to hear Dr. Stone affirm most positively that it is far better to listen without the stethoscope than with it—that is to say, that if the ear itself can be applied to the chest it is far better than using a stethoscope. The various sounds which are diagnostic of cardiac and pulmonary diseases, when they pass from the walls of the thorax through the stethoscope to the ear, may, some of them, be best transmitted by the air contained in a tube; while other sounds travel best through the wood or metal of which the stethoscope may be made. To distinguish clearly between these two classes of sounds, to explain how they are produced, and how the stethoscope is to be used, are matters of importance in the work of clinical teaching which does not receive the attention it ought from most of the physicians who have the care of in-patients in our hospitals.

In an out-patient room it is impossible to consider such a matter as this. Perhaps, indeed, it ought to be done only in the lectures on medicine. This, however, is a question on which opinions will differ.

I am, Sirs, yours faithfully,

Gunterstone-road, W., Dec. 3rd, 1895. ROBERT J. LEE.

THE FEES FOR THE REGISTRATION OF DIPLOMAS IN PUBLIC HEALTH.

To the Editors of THE LANCET.

SIRS,—I beg to call your attention to a regulation of the General Medical Council relating to the registration of diplomas in Public Health. After the first registration of qualifications in medicine and surgery a fee of 5*s.* is required for each additional qualification registered. In Public Health a fee of £2 is expected for the first qualification, and again a further £2 for each additional registration. Thus a man taking a D.P.H. and subsequently an M.D. in State Medicine is required to pay £4. Few people outside the Council can see the reason for charging so high a fee for registering a first qualification in Public Health; no one, I think, can show cause why for each and every additional registration an equal fee should be required.

I am, Sirs, yours truly,

Clifton, Dec. 31st, 1895. J. D. SYMES, M.D. Lond.

LIFE INSURANCE OFFICES AND THE PROFESSION.

To the Editors of THE LANCET.

SIRS,—I enclose copies of a correspondence which I have recently had with a life insurance office in London, and which I shall render anonymous, as one of the letters is marked "Confidential." As a profession we have our own internecine difficulties, which may be regarded as family differences and can usually be satisfactorily arranged with a little patience and good temper. But as a body we should, like all effective corporations, present an unbroken front to external presumption or aggression. Attacks of this character, like the "Chinee" who has passed into literature, approach "with a smile which is childlike and bland." We must not, however, be misled by such seeming innocence, but—I believe you will agree with me—repulse them with the decorum which becomes a liberal profession, and the decisiveness which belongs to a social power. It is in the hope that you will put the whole profession on their guard against an insidious form of such attacks that I place the following correspondence before you:—

"From the Manager of the —— Life Office.

"SIR,—You have been referred to for information in regard to the health and habits of Mr. —— in connexion with a proposal for insurance on his life. The directors will, therefore, feel obliged if you will favour them in confidence with replies to the subjoined questions."

Among these are: "Does he enjoy good health, and has he a sound constitution?" "If you know or have heard of his ever having been indisposed, state the nature of the ailment or ailments by which he is affected." "Have any relatives died of consumption or other pulmonary complaint, or of any hereditary disease? If so, specify cases." "Are you aware of any other circumstances bearing upon the eligibility of his life for insurance?" To this "favour" I replied:—

"DEAR SIR,—I have received your request for particulars concerning Mr. ——. I do not gather from your communication whether the information you desire is a professional opinion or the views of a friend of Mr. —— on the subject of his general eligibility for life insurance, inasmuch as you make no mention of the honorarium given by most offices consulting a professional man. May I inquire whether the —— Life Assurance Society expects candidates to pay such fees? On hearing from you I shall reply to your note."

In answer to this I received the following:—

"Replying to your favour of over date, I find that the form sent to you was a private friend's report form, Mr. —— having referred to you in that capacity. It is not, therefore, a professional opinion which we require from you, as we expect Mr. —— will be examined by our chief medical officer to-day. Thanking you in anticipation,—Yours faithfully,—"

I may state that my knowledge of and friendship for Mr. — was that which any professional man has for a patient whom he has known for some time. I replied, therefore, as follows:—

DEAR SIR,—In reply to your note of yesterday I have pleasure in stating generally that I believe Mr. —— eligible for life insurance; as, however, a categorical answer to the questions you have sent me involves a professional opinion, I trust you will pardon my returning them to you unanswered, together with the stamped envelope, unused, with which you were good enough to accompany your original favour. The fact of your chief medical officer examining a case, no doubt, at times appears to be sufficient to the lay mind, but I would respectfully suggest to you that under these circumstances the selection of a non-medical friend would be more in accordance with what is usually called good taste. I observe that the second portion of my note inquiring as to your usual custom as regards the remuneration of outside medical opinion remains unanswered. Quite possibly your custom is in accordance with the usage of the best offices, but, if it be not, permit me, with all deference, to add that you will consult your own best interests by treating with just consideration the profession on whose knowledge and advice, together with the coöperation of the actuary, the whole system of life insurance is based."

I am, Sirs, yours faithfully,

Nov. 29th, 1895. M.D.

THE BATTLE OF THE CLUBS.—XVI.[1]

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 1671 of vol. ii., 1895.)

BIRMINGHAM: EXPLOITATION OF MEDICAL MEN BY INDIVIDUAL LAY SPECULATORS.

BY reason of its size, the different character of its various districts, the large number of its institutions and clubs, and the disorganised condition and conflicting interests of its numerous medical practitioners, Birmingham is a town that presents more than the usual difficulties besetting an inquiry concerning the clubs and medical aid societies. Moreover there is no strong medical centre where a consensus of opinion can be obtained. On the contrary, opinions are singularly divided, and I frequently found that the very institution which one medical practitioner would denounce as the most offensive and glaring of the many grievances existing was precisely the very one another medical practitioner would point out as that which gave rise to the fewest complaints. Then, to render matters still more confusing, I felt

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton.

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myself bound to acknowledge that both these opinions were perfectly correct, though diametrically opposed. So much depends upon the initial point of view. An institution may be criticised on theoretical, professional, or ethical grounds, or else from the personal, selfish, practical, pecuniary standpoint. The result of such criticism will very generally depend on the basis of the argument, though, in both cases, the facts dealt with are identically the same. To illustrate this conflict of opinion I must at once deal with a phase of contract work I have not as yet encountered in any of the other towns visited. This was brought to my notice by Dr. Leslie Phillips, whose name has long been associated with the campaign against medical aid societies. Not only is the medical profession exploited first by the friendly societies and then by large speculative companies who organise medical aid and employ medical men as a bait to obtain life and other insurances, but there are at Birmingham private individuals (laymen) who make large incomes out of the work they place in the hands of medical men. It would seem as if medical men are so incapable of attending to their own business that laymen must needs come and do it for them, pocketing, of course, a large share of the profits as the reward of their labour and greater organising capacities. Now at Birmingham there are two such men, whom I will designate Mr. Y and Mr. Z. In a communication submitted to the General Medical Council,[1] Dr. Leslie Phillips writes: "As examples of the individual ownership of a medical aid association the following local instances may be given. The South Birmingham Medical Aid Association belongs to Mr. Y; the business is conducted by 'touts' and house-to-house canvassers; he receives for each patient 1*d*. per week, or 4*s*. 4*d*. a year, and pays the surgeons 3*s*. a year. I am informed that this man has about forty to fifty agents at work for him. The Edgbaston Medical Self-supporting Society belongs to Mr. Z. The circular of this business contains the following: 'There are upwards of 2000 members contributing 1*d*. each, Mr. Z being responsible for the quarterly fees of the members to each of the medical gentlemen. In this self-supporting institution there are no officers, no committee, no medical staff, no drug stores, no heart-burnings, no jealousies.' It might have been added, 'There is only the proprietor of the business—Mr. Z.' The circular contains an 'Ode to Genius.'"

This is certainly a terrible picture. Here are two men who have absolutely nothing to do with the medical profession, and yet who are exploiting medical men wholesale and making incomes out of their skill and their work. I obtained a card of membership of Mr. Y's society, and I found that it was entitled "The Minerva" Medical Aid Society and boasted of being "the largest medical aid society in the midlands." It was established in 1875, and reconstituted in 1887. An entrance fee of 3*d*. for single persons and 6*d*. for a family is charged. Then there is 1*d*. to pay for the card. Ordinary members pay 1*d*. per week, and are admitted from the age of three months to sixty-five years. Sixpence per week is charged for a family. Special members pay 2*d*. per week; they are, for the most part, more than sixty-five years old. According to the printed rules patients must visit the medical officers in their surgeries from 9 to 10 A.M. or from 6 to 8 P.M., and messages for home visits must be sent before 10 A.M. Persons who apply for entrance must be approved by the medical officers. This latter is an important clause and should be very strictly observed, but one of the medical men, who was both in Mr. Z's and in Mr. Y's service, assured me that the rule was enforced only by the former and totally neglected by the latter. It is said that Mr. Y's society has no less than 30,000 members. On the card of membership, which I possess, there is a list of thirty-three medical practitioners residing in and about Birmingham. Then there is a further list of sixteen medical men in Mr. Y's service, of whom three are at Wallsall, two at Wolverhampton, two at West Bromwich, two at Smethwick, and the others at Halesowen, Bloxwich, Oldbury, Wednesbury, Netherton, and Bromsgrove. Mr. Y is supposed to pay 3*s*. per member per annum to his medical officers, but on examining an account which he had rendered to one of his medical officers I found that he had deducted from the total a discount of two per cent. The reason for this practice was not stated Then, out of a list of only a little over 400 members, somewhat over fifty were struck off as having lapsed. This lapsing in payments is as disastrous to the medical officer as it is advantageous to his employer. For as many weeks as the members pay the medical officer has to give medical attendance when required; but, unless the whole of the thirteen weeks which compose the quarter are paid, the medical man gets nothing at all, and the entire sum goes into his employer's pocket. Instead of receiving about two-thirds of the payments effected, the medical man gets nothing. Taking this into consideration, together with the fact that the medical officer must, at his own expense, provide all the necessary drugs, it will be seen that the net profits fall short of 2*s*. per annum per member. Naturally it is not in the interest of these organisers of medical aid to establish any wage limit. They are not medical men, and they have no motive or advantage in protecting either the interests or the dignity of the medical profession. They must enroll as many members as possible, and naturally they will put no restraint on the efforts of their canvassers. These latter, being paid on commission and on the money they collect, call from house to house and employ any sort of argument that will persuade people to join their society. What do questions of professional etiquette matter to these canvassers and their employers? They belong to no profession and have no professional standing or reputation to maintain. It seems, however, a farce to say that medical men must not canvass, tout, or advertise, and yet here are forty-nine medical men working for Mr. Y, who with his agents undoubtedly does tout, canvass, and advertise, and this so as to secure patients for these medical men, together with a good commission for himself and his agents. That a certain amount of canvassing and advertising should be done on behalf of benevolent institutions—such as, for instance, a friendly society organised exclusively for the benefit of working men—may perhaps be admissible. But here there is no pretence of benevolence. This is a business in which laymen make their fortunes, or in any case earn very comfortable livelihoods.

With all these facts before me I naturally concluded that there was here a legitimate grievance, which was assuming gigantic proportions. Doubtless, if I saw some of the medical men in the service of Mr. Z or Mr. Y, they would unfold a terrible tale, and I should have a thrilling story of woe and degradation to relate. The first person I saw was a practitioner who had been in Mr. Z's service for some time, but was now no longer on his list. He was, therefore, quite free to speak out exactly what he thought, being absolutely independent of Mr. Z or of any other similar employers. To my surprise, however, he had no complaint whatsoever to make. He thought Mr. Z acted quite fairly and did the best he could under difficult circumstances. He was confident that there was no abuse; on the contrary, Mr. Z had the talent and genius of reaching a section of the population which no one else could attain. He extracted pennies from the lowest class of people which would otherwise be utterly lost to the profession. He not only enriched the profession to that extent, but he rendered a great public service by keeping from the hospital and the workhouse infirmary people who, but for his efforts, would undoubtedly depend exclusively on public charities or Poor-law aid. Mr. Z was to the profession what the Salvation Army was to religion: he managed to awaken among the lowest of the low some sense of duty, taught the lesson of thrift, and extracted pennies from the most barren soil.

Somewhat disconcerted by this very unexpected answer to my questions, I hastened to call on another practitioner whom I knew to have been likewise in Mr. Z's service. He also declared that there was no abuse; the members of Mr. Z's society were all very poor people. In respect to the money earned he was not so satisfied. Mr. Z paid very regularly, sending his cheque punctually each quarter, but there was no account rendered, and no details were given. It appeared also that about £14 per quarter was the utmost to be obtained in his service. If any of the medical men in his service asked for some explanation Mr. Z produced a ponderous volume containing a perplexing and terrible array of figures. To attempt to unravel the meaning of these accounts was a task so complicated and appalling that my informant very promptly gave up all effort to solve such a conundrum. He was content to receive the cheques without further question, satisfied with the fact that he earned the money with a minimum of trouble. Indeed, Mr. Z makes no empty boast when he says on his

[1] Appendix to Minutes Report on Medical Aid Associations, May, 1893, page 10.

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prospectus that "there are no officers, no committee, no medical staff, no drug stores, no heart burnings, no jealousies." In so far as the peace of mind of the medical officers is concerned, institutions run for private personal profit, such as those of Mr. Y and Mr. Z, offer very great advantages over benevolent or friendly societies. Such men have every interest to smooth over difficulties and to pacify the dissatisfied. If a member complains that he has been neglected by the medical officer, Mr. Y or Mr. Z will defend his employé against his customer, just as a shopman will argue that his goods are of excellent quality in spite of the complaints and the fault-finding of dissatisfied purchasers. The medical officer's virtues will be extolled, excuses be found for any neglect, and complaints be qualified as exaggerated. If this does not suffice, and the worst comes to the worst, the complaining member will be told that he can, if he wishes, have his name put on the list of some other practitioner. Thus it very rarely happens that the medical officers hear of any complaints, and they have a much easier time when working for a Mr. Y or for a Mr. Z than if they are in the service of a friendlysociety or of a provident institution governed by an elected committee.

This opinion was confirmed by another practitioner who had been for several years in the service of some Birmingham friendly societies. Rarely have I met anyone who spoke so bitterly and resentfully against this sort of practice. He had worked under the orders of a committee of forty working men. In one day he had done as much as five hours' work in the surgery and then had ten hours' riding to the private dwellings of the various patients. Drawing out his note-book, and taking a week at haphazard, he found that his visits had taken up for the six days 10, 6, 7¾, 6, 7¾, and 8 hours respectively, besides five hours in the surgery each day to receive patients. Then, by way of rest, he had to appear in the evening in the back parlour of some public-house, where a committee of rough workmen, sometimes none the better disposed for the drink they had been taking, sat in judgment upon him. These men got 1*s.* for attending the committee meetings, and the most trivial complaint against the medical officer is a good pretext for spending an evenin at the public-house with 1*s.* each to cover the expense of the drinks. A larger fee is given when a deputation is appointed to call on the medical officer, who is consequently often disturbed by a troop of men coming to his house to discuss some very trivial matter. A shilling fee may be qualified as a very small sum, but it is of considerable importance to men who are earning only 25*s.* or 30*s.* a week. The fact also that such societies very frequently meet in public-houses has a very disastrous effect. Many a time members of the committee were quite drunk when they heckled the unfortunate medical officer summoned to appear before them. These committees, my informant insisted, render few or no services. They are not wanted. At most a secretary is needed to receive the subscriptions, and in many cases the medical men could themselves receive the subscriptions, thus dispensing with the services of even this functionary.

To return to Mr. Y and Mr. Z. The latter appears to be the more popular of the two. Thus if a vacancy occurs on his staff of medical officers, he consults the remaining ones and is guided by their advice in making a new appointment. As for the share these two men take for themselves, this is not considered excessive. The cost and labour of canvassing are very considerable; and as a class of people are reached that are not worked by any other agency this service merits an adequate remuneration. These men are "captains of industry," organisers of a business; "sweaters," if it be any satisfaction to dub them with this name; but they are almost a commercial necessity in a commercial world. The real question is whether medical men can be considered as belonging to a commercial world. For my part, I cannot but fancy that there has been too much carelessness in these matters, and this has resulted in a tendency to run with the hare and hunt with the hounds. Medical men have thoughtlessly allowed themselves to be dragged into the arena as if they were ordinary commercial men running a business; then, when the laws that govern business competition begin to hit them too hard, they discover, but perhaps too late, that they are professional men and should not be "sweated" or subjected to unlimited competition, and should not be employed like mere workmen by companies, by capitalists, or by "captains of industry." Then, but again too late, it is found that they cannot do their duty to their profession or to the public: that, having lost their independence by becoming the employés, the "wage slaves," of some commercial concern, they are not able to do their work conscientiously. They have to please their masters and not their patients. They are no longer the guardians of public health, but the promoters of a private business. Their concern is with the profits that must flow to their employers' pockets and not with the health of their patients. They cannot serve God and Mammon; they must satisfy their employers or lose their position.

(To be continued.)

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Coronership for the Salford Borough and Salford Hundred.

THIS dual appointment, now vacant by the death of Mr. F. Price, will shortly be filled up by the Salford borough council for the borough and by the county council for the hundred. Preference will be given to candidates who will undertake to have an office in the borough and to calculate mileage from the Salford Town-hall. For the borough coronership applications will be received by the town clerk up to Jan. 8th. Mr. J. F. Price, the son of the late coroner, who has for some time acted as his father's deputy, is one of the candidates for the dual appointment. Other names have been mentioned, but the only medical candidate is Dr. J. G. Gledhill, barrister-at-law, of the Northern Circuit. He takes an active interest in the social politics of the medical profession and is from his qualifications in medicine and law specially fitted for a position where both are required.

Monsall Fever Hospital.

The final stage, so far as the infirmary authorities are concerned, in the arrangement for the transfer of the Fever Hospital and estate to the Manchester Corporation was reached a few days ago. At the meeting of the board of management held on Dec. 30th, Mr. E. S. Heywood being in the chair, it was reported that at a special meeting on Dec. 16th the following resolution was passed: "That upon the recommendation of the committee of Monsall Fever Hospital the agreement between the Manchester Royal Infirmary and the Corporation of Manchester, now submitted, for the transfer to the latter body of Monsall Fever Hospital and estate, and for the repeal of the Act of Parliament uniting the Manchester House of Recovery with the Manchester Royal Infirmary (15th Vict., c. 3, May 28th, 1852) be and is hereby approved and adopted, conditional on the same being confirmed by Parliament; and it is further resolved that the corporate seal of the institution be affixed to the said agreement after notification has been received of its formal adoption by the Manchester Corporation."

Salford Sewage.

It seems as if Salford were at length coming to a decision as to a scheme for sewage purification. By an order of court, obtained by the Mersey and Irwell Committee, the corporation was obliged within a short time to lay its scheme before Judge Parry, so that it was driven into a corner. Experiments in sewage treatment must have been carried on for more than six years, and the results of about thirty processes have been carefully noted. Salford has been ridiculed for this; but if she has not gained much the experiments have had some educational value and have been followed with attention by municipal authorities in various parts of the country. One reason for the long continuance of these experiments was that those schemes which seemed most efficient were also costly, and it was hoped that some equally good, but less expensive, method would be discovered. Mr. Corbett's report is the outcome of all these various experiments, and he believes that his scheme is more efficient and less costly than any that have been tried. It is a combination of precipitation and filtration. He deals, firstly, with the removal of sludge from the precipitation tanks without interrupting their continuous use, describing the apparatus as "a travelling scoop, a pontoon with traversing gear, and pliable pipes to convey the sludge to iron pipes leading to the open channel for filling the new sludge tanks." The compressed sludge is to be taken by the corporation steamer out to sea by the Ship Canal. The second point is the provision of "roughing filters" for straining particles of solid matter from the tank

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effluent. The report says: "The long-continued experiment with the model roughing filters, dealing with 12,000 gals. per square yard per day, and cleansed by upward washing and surface raking, have completely proved the efficiency of such simple and inexpensive filters for removing any visible particles of solid matter from the tank effluent. It was found practicable, indeed, to run these filters at the rate of 40,000 gallons per square yard per day with a head of about two feet of water over a filter of three feet of sand; but, of course, the efficiency of the filter is greater with the more moderate flow." Provision is made for the mechanical cleansing of these filters by an engine and sand-washing machinery travelling on the filter side walls. The work done by these filters would be somewhat similar to that done by the coke-breeze filters at the Glasgow sewage works. "The borough analyst's report of numerous analyses of effluents from the experimental roughing filters on this system show an almost complete removal of all matters in suspension, and a slight reduction in the albuminoid ammonia as compared with the tank effluent before rough filtering." Thirdly, the final filtration of the clarified effluent is discussed. At Wakefield for many years the town was supplied with water from the foul river, filtered through a couple of filters, used and rested alternately, filled with sand and magnetic carbide, a material similar to that now called "polarite." Until recently the efficiency of these filters was generally credited to their special material, but it is now known to have been due to their intermittent use, "inducing a growth of air-breathing bacteria, which transformed the offensive sewage elements into harmless products." This result is borne out by experiments carried on for the past three years by the London County Council, and by the experience at Laurence, Massachusetts, where the water-filters are constructed on this aerating principle. But such experiments show also that insoluble substances gradually accumulate, and a glutinous substance is formed by aggregations of bacteria, so that provision must be made for washing or renewing the filtering material. The results of numerous investigations indicate that "the essentials of a sewage-filter are—(1) a hard, granular, durable material free from very fine particles, such as sharp sand with the finest grains riddled out, or coke breeze, or cinders, or crushed brick with the fine dust riddled out; (2) arrangements for intermittent use, with thorough drainage and aeration in the intervals of rest at least once a day, and preferably many times a day; (3) a flow of not more than 1000 gals. per square yard per day while in use, with five feet depth of filtering materials." The effluent from the "roughing filters" is taken by pipes to the aerated filters, which cover a large area, to one-third or to two-thirds of which it can be distributed over the surface of the filters by a network of iron pipes with spray jets. Each third of the area can be aerated once a day or oftener. A sand-washing engine will be in constant use on these aerated filters. After this final filtration the effluent enters a culvert discharging into a small fish-pond, where its purity will be always visible, and from this it is to pass "over a long weir in one side of the intercepting sewer outfall culvert, and so into the Ship Canal." This scheme, of which I have given a very imperfect sketch, was adopted yesterday at a special meeting of the Salford Town Council, giving the committee, however, the discretionary power to increase the size of the aerating filters by 4000 square yards. The estimated cost is £50,000, and the cost of maintenance is put down at £8000 a year.

Dec. 31st, 1895.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Christmas and Charity.

THE Christmas Hot-pot Fund, which was started ten years ago during the mayoralty of Sir David Radcliffe, has this year been enabled by the generosity of the public to provide 5000 hot-pots (an increase of 1000, in consequence of the extension of the city). Each hot-pot contained 12 lb. of food, comprising 3 lb. of beef free from bone, potatoes, and onions. In all, 21,422 lb. of beef, 26 tons of potatoes, and 2½ tons of onions were distributed. Each family received in addition to the hot-pot a 4 lb. loaf of bread, ¼ lb. of tea, and a jar of jam. Lord Derby, in his official capacity of Lord Mayor, took great interest in the work.

The Stipendiary Magistrate and Neglected Children.

Mr. W. J. Stewart, the stipendiary magistrate, has for several years past taken special notice of neglected children, many of whom are brought before him by the police for "sleeping out," and for selling papers, matches, &c., after prohibited hours. No fewer than forty-five such children appeared in court on Dec. 26th, and he said that while he did not like to inflict punishment upon parents who were guilty only of an isolated act of cruelty to or neglect of their children, he found that in cases where the parents were addicted to drink a long period of imprisonment had a very salutary effect.

Alleged Wife Murder by a Dentist.

An inquest was held by the city coroner on Dec. 30th upon the body of the wife of Herbert Westworth, surgeon dentist of this city. She died on the 13th from internal violence which could not have been self-inflicted, and the jury returned a verdict of wilful murder against the husband.

Dec. 31st, 1895.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Action with regard to Edinburgh Refuse Destructors.

AN action was raised some months ago against the corporation of Edinburgh relative to the refuse destructor at Powder-hall by the trustees of Mr. Alexander of Redbraes, a property adjoining or close to the ground on which the destructor complained of is situated. The complaint was that the destructor was so managed that it was a nuisance; and that noxious vapours, dust, half-burnt paper, and other matter were disseminated by it, passing over or falling upon the land. Lord Stormonth-Darling had found in August last that the process of burning city refuse in the destructor had created a nuisance, and the pursuers were entitled to expenses. The question of expenses was raised the other day, and in disposing of objections to these his lordship said that in this case there had been a great waste of public money, for which the defenders were mainly responsible. They had stated in their defence that the destructor was apt and sufficient for the complete destruction of all the refuse sent to it, but this they had entirely failed to prove. It is said that this action will cost the corporation about £3000. It will probably have the effect of making those responsible somewhat more careful in the working of the destructors.

The Temporary Hospital in the Queen's-park, Edinburgh.

Part of the temporary hospital in the Queen's-park has been taken to pieces, but the portion of it used for small-pox patients has been destroyed by fire as it stood. The authorities may be congratulated on their action in this matter.

A Lady Manager for the Edinburgh Royal Infirmary.

Miss Flora Stevenson has been requested, and has consented to be, a candidate for a seat on the board of management of the Royal Infirmary. The election takes place early in January by the board of contributors. Her candidature is supported by the *Scotsman* newspaper, and it is extremely probable that she will be elected.

New Convalescent Hospital near Aberdeen.

The site of the new convalescent hospital in connexion with Aberdeen Royal Infirmary lies on the Craigton road, about a mile from the suburban railway station at Cults. The building will consist of two storeys, with cross wings at each end and a back wing. Along the whole length of the main block front will run a glass-roofed verandah, supported on wooden pillars. The ground floor accommodation of the main building provides for separation rooms, sisters' rooms, and rooms for lame patients, and that of the wings provides spacious sitting-rooms for male and female patients respectively. The patients' dormitories are on the first floor of the wings, and on the first floor of the main block are sisters' bedrooms and association and separation rooms. The back wing contains on the ground floor a large dining-hall, with kitchen, scullery, and stores in the rear, and on the first floor accommodation for the staff. The total of the accepted tenders for the erection is £4100, which is exclusive of furnishings.

City Hospital, Aberdeen.

The extension of the City Hospital, Aberdeen, was opened, on Dec. 21st, by Lord Provost Mearns in presence of a numerous company, including a considerable number of medical practitioners. Much interest was shown in the

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ambulance vans, Lyons's patent disinfector, the laundry machinery, and the mechanical heating and ventilating apparatus. In the course of the evening Sister Isabel, in the name of the nursing staff, presented a handsome silver inkstand to Professor Matthew Hay, M.D., medical officer of health of the city and superintendent of the hospital.

Dec. 31st, 1895.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Private Hospital Case.

THE case known as the Fitzwilliam-square injunction case, which was watched with so much interest by the public and the profession here, has at last been decided. It will be remembered that in last April the Earl of Pembroke obtained a decree from the Vice-Chancellor by which an injunction was granted to restrain the defendant, Mrs. Perry, from using the house, 28, Fitzwilliam-square, as a private hospital in opposition to a covenant contained in a lease dated June, 1882. The case was at hearing for many days and was much discussed. It was known that the decision would affect not alone the inhabitants and owners of all the houses in Fitzwilliam-square who hold under a similar covenant, but the majority of the houses in Merrion-square and in the best parts of Dublin. An appeal was lodged against the Vice-Chancellor's decree, and after a prolonged trial and protracted delay judgment has at last been given supporting the original decree and against the defendant. The Lord Chief Justice delivered a long and elaborate judgment, in which he quoted the covenant, which is to be found in print in the lease of the house in which I write, as in that of the neighbouring houses, as follows:—"The said lessee, for himself, his heirs, executors, administrators, and assigns, doth covenant, promise, grant, and agree to, and with the said earl or the person or persons who may for the time being be entitled as aforesaid, that neither he, the said lessee, his heirs, executors, administrators, or assigns, nor any of them during the said term of 150 years, shall employ or use any part of the front of said houses as a shop, or follow or carry on, or permit or suffer to be followed or carried on in the said houses or on any part of the said demised premises, the business of a tavern, alehouse, soap boiler, chandler, baker, butcher, distiller, sugar baker, brewer, druggist, apothecary, tanner, skinner, lime burner, hatter, silversmith, coppersmith, pewterer, blacksmith, or any other offensive or noisy trade, business, or profession whatsoever." He relied to a considerable extent on the final words of this covenant and held that in the meaning of the lessor a hospital situated as it was proposed to locate this one was "offensive." What, he asks, would be the position of the next-door proprietor? If he was a person of ordinary humanity he would not use his house for the purpose of giving practically any entertainment. He would not give a ball or musical party, which I assume it is the privilege of those resident in Fitzwilliam-square to give. If he abstained from giving entertainments which would be attended with noise, through regard to the sufferers next door, he would certainly be restricted in the use of his own house, and if he did not abstain his feelings would not be of an enviable description. In alluding to the medical evidence in the case, which was of a rather conflicting character, the Lord Chief Justice turned to the affidavit of Dr. Wheeler, which states: "I have had considerable professional acquaintance and connexion with the class of institutions known as private hospitals or homes for patients, and although I am aware that the most of such institutions profess not to take in infectious cases for treatment, and do not allege that they would deliberately do so, I am convinced that it is practically impossible altogether to exclude such infectious cases, even with the greatest care and supervision on the part of the managers of such hospitals or homes, and that this would be especially so in the case of a home managed by a lady who had herself not any direct connexion with the medical or surgical treatment or nursing of the patients' cases, which, appearing perfectly harmless when admitted, may develop into small-pox, scarlet fever, or other infectious disorders of the most virulent type. Tuberculous disease in particular not infrequently results from other maladies which in their inception are apparently quite harmless." Lord Justice Walker concurred with the Lord Chief Justice, while Lord Justice Fitzgibbon, the third Member of the Court of Appeal, took a somewhat different view. The matter is now, however, decided by the action of the majority, and inasmuch as no intention of appeal to the House of Lords has been stated the decision is final.

Christmas at the Belfast Hospitals.

The patients at the Royal Hospital were entertained with a substantial dinner, and at the Belfast Hospital for Sick Children there was an "at home" with Christmas trees for the children on Friday, Dec. 27th.

Belfast Royal Hospital.

From the annual report of the Working Men's Committee I find that, while seven years ago it consisted of thirty members, now there are 120. At that period the working classes subscribed £1563; now, during the past year, a sum of £2403 was realised.

The Battle of the Clubs at Cork.

The question has arisen as to whether it would not be well to form a benefit club to be managed and controlled practically by a committee of the profession. Similar clubs have been successfully established in England, and some time ago the committee of the profession appointed a sub-committee who produced an admirable scheme, showing that very great attention had been paid to the minutest details. The committee approved of the report of the sub-committee and recommended it for adoption. A meeting of the profession was accordingly held on Dec. 30th, and after a prolonged debate it was found that a majority of six were in favour of forming the club, but as, in accordance with the rules, there should be a three-fourths majority to permit of the rescinding of an existing rule the proposal has for the present been rejected.

The Royal University, Ireland.

The senate of the Royal University recently decided to require medical students to pass an examination in clinical medicine and surgery at the end of their third year, and this regulation has caused considerable dissatisfaction. Many medical teachers hold that this is a retrograde movement: that the fifth year of study has been added to the student's curriculum mainly in order that he should have ample time for gaining a thorough practical knowledge after he had satisfied his examiners that he had sufficiently mastered the theoretical branches of the profession. A movement is already on foot in Cork to make representations to the senate of the Royal University on the subject.

Dec. 29th, 1895.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

A New Method of isolating the Enteric Fever Bacillus.

ALTHOUGH the bacillus of enteric fever was discovered several years ago, no method has until recently been devised for easily and quickly recognising it and isolating it from other bacteria. According to Professor Brieger more than 700 articles and memoirs have been published dealing with the matter, but none of them answers the requirements of clinical practice. A very simple and certain method has, however, been lately discovered by Dr. Elsner, assistant physician at Professor Koch's bacteriological institute. After boiling gelatin together with an infusion of potatoes he adds a quantity of soda and filters and sterilises the mixture, which is then put into tubes filled with a one per cent. solution of iodide of potassium. The tubes are then inoculated with the dejecta, and the gelatin is deposited on glass plates in the usual way. The researches of Dr. Elsner have proved that all bacteria perish in the iodide of potassium gelatin except the bacillus of enteric fever and the bacterium coli commune. After twenty-four hours the bacillus of enteric fever is scarcely visible on the gelatin, but the colonies of bacterium coli are already somewhat large at this period. After forty-eight hours the colonies of the enteric fever bacillus become visible as small clear masses like drops of water, whereas those of the bacterium coli are large and of a dark-brown colour. No other bacteria of the dejecta besides the two above-named are to be seen. Dr. Elsner has published twelve cases where he found the bacillus after forty-eight hours in every stage of the illness. The number of the bacilli decreased as soon as the temperature became lower. In one case complicated with thrombosis of both crural veins they were present even after thirty-eight days. If after the cessation of the fever the

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bacilli are still visible in considerable quantity a relapse is probable. Professor Brieger suggests that the dejecta of persons who have to do with enteric fever patients, such as nurses, servants, &c., should be regularly examined. If bacilli are found these persons must be supposed to be in the stage of incubation, and full doses of calomel may be able to prevent the development of the illness. The great importance of Dr. Elsner's discovery from a prophylactic and therapeutic point of view is obvious.

The "Practical Year" of Medical Study.

As I explained in my article in THE LANCET of Sept. 14th, 1895, German students do not receive a sufficient amount of practical training in medicine and surgery. The university clinics and hospitals in the larger towns are overcrowded with students, whilst in the smaller universities the patients are often too few to afford the needful clinical experience. The majority of students, therefore, enter into practice with a good theoretical education, but without the necessary skill in practical matters. For a long time past the leaders of the profession have been of opinion that this state of affairs should be improved, and the Practitioners' Association at two of their annual meetings have asked the Government to consider the question. It would seem natural that additional medical schools should be established in connexion with the larger hospitals which hitherto have not been used for teaching purposes, but this is impossible without a total revolution in the system of medical education, which entirely centres in the universities. As the students are obliged to attend the university hospitals and clinics exclusively, an effective practical training cannot be obtained until the curriculum at the university is completed, and another expedient has, therefore, been proposed. According to the suggestions of the Practitioners' Association the students should be required to spend a so-called "practical year" in one or more hospitals; and this system, which somewhat resembles the "internat" in France, will probably be adopted in the new regulations to be issued by the Federal Council. There is a difference of opinion as to whether this hospital course should come before or after the *Staatsexamen*, but all agree that a full qualification should not be conferred prior to the completion of the compulsory clinical practice. Professor Krabler of Greifswald, who acted as reporter on this question at the meeting of the Practitioners' Association, has published a detailed scheme in the *Deutsche Medicinische Wochenschrift*. According to this plan the young medical men after having passed the *Staatsexamen* would be required to act as *Hilfsaerzte* (assistant medical officers) for one year in public or private hospitals containing more than fifty beds, and a list of these hospitals would be published every year by the Imperial Chancellor. In this list not only the general hospitals but also special hospitals for diseases of the eyes, throat, &c., lunatic asylums, and lying-in hospitals should be included, but hydropathic, orthopædic, and similar establishments would be omitted. The number of the *Hilfsaerzte* is to be fixed for every hospital, and they would, if possible, board in the hospitals at moderate charges; those who have passed the best examination would for this purpose receive an allowance from the Treasury. The chief medical officers of the hospitals would control the work of the young men and give certificates. Professor Eulenburg proposes that an additional oral examination should be passed after the end of the hospital practice before an examining board consisting of university professors, medical officers of health, and practising members of the profession.

Over-pressure in Schools.

Complaints of over-pressure in schools have been made for a long time past, and the development of hygiene together with the increasing interest of the public in sanitary matters has rendered parents more and more nervous. In Germany many subjects are included in the school training which in other countries are taught in the universities; the number of daily lessons is, therefore, usually very great, and the weaker pupils often suffer from the over-exertion. In the *Deutsche Medicinische Wochenschrift* Professor Eulenburg criticises the time-table of a well-known Berlin "gymnasium," where the sixth class has thirty-three lessons weekly. On one day the pupils have six consecutive hours of study with only two intervals of ten and fifteen minutes respectively; there are also afternoon lessons on two days, and the pupils have to go to school twice a day. Dr. Herter of Frankfort complains of similar evils at a "gymnasium" of that town. Dr. Eulenburg points out that according to the researches of Griesbach the brain of an over-exerted child requires several hours of rest till it regains its normal faculties, and Burgerstein has stated that boys of twelve years of age require, as a rule, an interval of several minutes after forty minutes devoted to study; but the opinions of these eminent men seem to have little weight with the school authorities. Both the medical profession and the public have on several occasions asked for the establishment of medical supervision in connexion with the schools, but the school authorities, actuated by *esprit de corps*, have always been opposed to the interference of medical men in what they believe to be their own domain. The facts and opinions above enumerated, however, prove that the coöperation of medical men and school teachers is sometimes very essential.

Dec. 29th, 1895.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Dr. Edgardo Jacopetti.

AMONG the *immortelles* which Italian journalism is showering on the graves of the fallen at Amba-Alagi few are better merited than that dedicated to Dr. Edgardo Jacopetti, lieutenant on the medical staff of the expeditionary force, and killed with Major Toselli and sixteen brother officers in that sanguinary engagement. He was a native of Fivizzano, in the province of Massa-Carrara, and as an army surgeon and officer reflected high credit on the Tuscan school in which he was trained. He was not new to Abyssinian warfare, having been a member of the special expeditionary corps which was sent to the front in 1887-88. He then distinguished himself by his coolness in danger, his professional skill on the field, and the confidence he inspired in the sick and wounded under his care. In June last he was enrolled in the second battalion of native troops, in succession to Lieutenant-Surgeon Virdia. That gallant company died nearly as one man on the day of Amba-Alagi, and, after doing his best and last for the wounded, he also fell sword in hand. He was in his thirty-third year and met a fate similar to that of two other distinguished members of the army medical staff, Captain Nicola Gasparri and Lieutenant Augusto Ferretto, both of whom died a soldier's death on the fatal field of Dogali.

The University Riot.

The recent reverse that has befallen the Italian army at Amba-Alagi has evoked anti-ministerial demonstrations from many of the students who, at a meeting in the Aula Magna for the commemoration of the fallen, interrupted the spokesman of the occasion (Professor Semeraro) with shouts of "Abbasso la politica Africana!" "Abbasso Crispi!" "Evviva Menelik!" This rude outburst proceeded from the "Socialists," who, headed by a student (Cherubini, by name), made the solemn function of the day impossible. A chair was thrown at the ringleader, and in a moment every similar piece of furniture in the hall was broken up and used as a missile, amid the havoc of chandeliers and other ornaments, till a regular pitched battle was fought out between the "Africanists" (those who back up Crispi's colonial policy) and the "Anti-Africanists" (the Socialist group referred to). The latter were at length hustled out of the hall, in a bruised and battered condition, and then their victors formed in procession to the Piazza dei Cinque Cento, there to deposit immortelles on the Dogali monument. The university authorities will have to take stronger measures than hitherto for the summary and final prevention of these scandals.

The Italian Red Cross.

The President of the Croce Rossa Italiana, in view of the late military reverse in Africa, has arranged for the second mountain ambulance lately lying in readiness here to be despatched to the front by the steamer now on its way from Naples to Massowah. Like its predecessor, which left these shores for the seat of war in September last, this ambulance, similarly equipped, is due to the liberality of the sub-committee of the Red Cross at Turin. The same sub-committee, in concert with the central committee, is at present fitting out a third ambulance for a similar destination. A strong organisation has also been formed at Palermo for the provision of money and *matériel*.

The Tiber in Flood.

The torrential downpour of the last few days has swollen

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the tributaries of the Tiber, notably the Paglia and the Anio, to such a height that the lands below the city are submerged, particularly on the levels of S. Paolo fuori le Mura. Within the walls the site and immediate surroundings of the Pantheon are the only parts really flooded. The island, famous in medical history for its Temple of Æsculapius, and lately converted into a peninsula, has been made an island once more; and well would it be for the archæologist, the artist, and, above all, for the sanitarian, if this separation between it and the left bank were not temporary but permanent. The water now careers between the island and the embankment and has made a clean sweep of the miasmatous mud and the frogs that frequented it. Dr. Baccelli, when the Eleventh International Congress sat in Rome, was interviewed by medical archæologists and others interested in the island with a view to the removal of the connexion with the river bank, but nothing has yet been attempted.

The Acqua Acetosa.

Our Accademia Medica is making a laudable endeavour to restore the Acqua Acetosa to its ancient popularity. Professor Colasanti, in whose laboratory a careful analysis has been made by Dr. Feliciani, read a report on the subject to the Accademia in plenary session. The water contains chloride of sodium, chloride of potassium, chloride of lithium, chloride of magnesium, nitrate of potash, and borate of soda. In amount of lithia it is little inferior to the waters of Carlsbad or Uliveto. The spring is in a suburb of Rome.

Dec. 28th, 1895.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Clinical Teaching of Ophthalmology.

AT the opening of the Medical College at Innsbrück Professor Dimmer delivered an address on the clinical teaching of ophthalmology. Clinical instructors should keep in mind that students are not to be trained as specialists but as practical physicians, and particular attention should be given to the examination of the external parts of the eyes, the lids, the lacrymal sac, the mobility of the eyeball, and the use of the ophthalmoscope. At Vienna, where the far-famed Jaeger worked at his well-known Atlas of Ophthalmoscopy, there are a great many students who are not competent to use the ophthalmoscope. The student ought to be able to examine the state of the eye, to specify the spectacles required for a patient, to estimate refraction by means of skiascopy, to ascertain the perception of light in cases of cataract, and to define the field of vision. Eversion of the eyelids, touching of the cornea, sounding of the lacrymal sac, and the removal of foreign bodies from the conjunctiva and the cornea, are operations which ought to be performed by the student on patients; but puncture of the cornea, enucleation of the eyeball, canthoplastic operations, tarsorraphy, and the operations for ectropium and entropium should be practised on the dead body. Sterilisation of eye-washes and antisepsis and asepsis in operations are also of great importance. Complicated operations, such as the extraction of cataract, iridectomy, and the treatment of strabismus, are not to be performed by students, but only by those who have passed some years in an ophthalmic hospital. Teaching ought never to be purely theoretical but should be illustrated by cases exhibited and demonstrated, so that every student may see the important symptoms. Professor Dimmer, therefore, agreed with the opinion of the late Professor Billroth, who considered that fifty students were the maximum number for a clinical class. In referring to the teaching of ophthalmology in other countries he pointed out that in France, Great Britain, Spain, and Denmark there is no special examination in this subject; in Austria lectures are delivered five times a week (ten hours altogether), and the examination consists of a practical and an oral part and lasts for fifteen minutes. Professor Dimmer advocated a practical examination such as is held in Germany, where this examination lasts three days, during which time the student has to investigate the history of the cases and to diagnose their nature. He concluded with Billroth's saying: Teaching is a satisfaction for everyone who has devoted himself to science, but examining is a torture.

The Sexual Relations of the Thyroid Gland.

At the last meeting of the Vienna Medical Club a highly interesting paper was read by Dr. Fischer, in the course of which he remarked that the relations between the thyroid gland and the female sexual organs have often been discussed since attention was directed to the fact that goitre predominated in women and that from 80 to 90 per cent. of the cases occurred in females. Myxœdema, moreover, is met with in women in 86 per cent. of the cases. The same thing is found in Graves's disease, and in respect of sclerodermatic processes the proportion as between women and men is three to one. Swelling of the thyroid gland has been observed in puberty and at the commencement of the menstrual period. Freund found an increase of this gland during pregnancy in forty-five out of fifty cases, and Wölfler has described a case in which during pregnancy the trachea became soft and the goitre increased. Goitres also increase during delivery and decrease again some days afterwards. Graves's disease also, if it develops during pregnancy, improves after delivery. It is doubtful whether the thyroid gland becomes larger during lactation, but in the climacteric period it undergoes atrophy. Goitre and phthisis seem to be incompatible, and phthisis is but rarely observed in the subjects of hypertrophied thyroid gland. Dr. Fischer then referred to the numerous theories as to the etiology of goitre. Morgagni supposed that there was a communication between the thyroid gland and the larynx, and he believed that the trachea is moistened by this gland, and that phonation is thereby facilitated. Some authors suggested that this gland was a regulator of the brain, whereas Freund considered that it was in connexion with the genitals through the sanguineo-vascular system. In the lower animals extirpation of the thyroid gland causes atrophy of the sexual organs, which is due, according to Hofmeister, to shrivelling of the ovarian follicles. Hens with hypertrophied thyroid glands also lay larger eggs than those which have atrophied thyroids. Post-mortem examination of a girl aged eight years who was affected with myxœdema showed that both ovaries were of the size usual at two years of age and that they contained only a few follicles. The symptoms of Graves's disease depend in some degree on the condition of the patient's sexual development.

Anti-streptococcic Serum.

At the last meeting of the Vienna Medical Society Professor Chrobak described three cases in which anti-streptococcic serum had been injected. In the first case, which was one of erysipelas in a lying-in woman, recovery occurred after three days. The second case was that of a woman who showed symptoms of sepsis after an operation for myoma; in two days 30 c.c. of serum were injected, after which her condition improved. In the third case, that of a woman suffering from puerperal fever, 25 c.c. of serum were injected in the course of three days; the fever and rigors continued until after the administration of the last injection, but on the next day the temperature rapidly decreased. Professor Chrobak has not formed a definite opinion as to the value of the injections, but believes them to be harmless.

Death of Professor Teichmann.

The medical school of Cracow has sustained a heavy loss by the death of Professor Teichmann, who passed away at the age of seventy-two years. He was born in 1823, and studied at Dorpat, Heidelberg, and Göttingen, where he obtained his diploma in 1856. He became *privat-docent* in Anatomy and Physiology in 1859, Professor in 1861, and in 1868 he was appointed to the Ordinary Professorship at Cracow. Among his works I may mention those on the lymphatic vessels, published in 1861, and on hæmatin, published in 1853 and 1857, the latter containing the description of the so-called Teichmann's crystals, which even now are employed in Austria as a test for blood. This test, which is one of the most familiar in forensic medicine, was directed by him to be made in the following manner. The substance, which is supposed to contain blood, is to be heated with one drop of glacial acetic acid and a little common salt, and if blood be present rhombic crystals of hæmin (chlor-hæmatin) will be seen under the microscope. Professor Teichmann was also a masterly dissector, and his anatomical preparations are valuable.

Cholera in Galicia.

During last week 15 cases of cholera and 14 deaths have been reported from the districts of Buczacz, Czortkow, Husiatyn, Kamionka, Sokal, and Trembowla, making a total of 394 cases, with 259 deaths, since the outbreak of the disease.

Dec. 15th.

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RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The New Prefect of St. Petersburg.

MAJOR-GENERAL CLAYHILLS, the newly appointed *gradonatchalnik*, or Prefect, of St. Petersburg, is a Scotchman by descent, though a native of the Government of St. Petersburg. He has held for the last seven years the appointment of *Oberpolizeimeister*, or head of the police, in Warsaw, where he is said to have won golden opinions from all sorts of people. In particular, he is said to have done much to improve the sanitary condition of that city, a task which, according to a leading Russian journal, "was one requiring great labour, and, in a town containing a numerous Jewish population, one of great difficulty; but, thanks to the energy of General Clayhills, the town has become notably cleaner, and the Jewish streets are almost unrecognisable." The same authority continues: "In his care for the public health he paid special attention to the purity of articles of food exposed for sale, and energetically put down adulteration of such articles. Thanks to the improved sanitary condition of the town, the mortality and sickness rates have both diminished, and cholera, which has visited Warsaw for some years running, has never spread widely. General Clayhills also dealt successfully with an epidemic of small-pox which occurred some time ago in Warsaw." These are good credentials for the new occupant of a post such as that of Prefect of the Russian capital—a post which carries with it extensive powers and responsibilities as regards sanitation and public health.

An Outbreak of Ergotism.

An epidemic of ergotism has appeared in the government of Perm, in the north-east of Russia. In some districts an average of 17 per cent. of the rye grains are found to be infected with the claviceps fungus. It has been found most difficult to separate satisfactorily the diseased from the healthy grain; but even a greater difficulty has been that of persuading the peasants that the diseased grain and the symptoms of ergotism stand in the relation of cause and effect. Ergotism is popularly called in Russia "*zlaia kortcha*," literally "malignant spasms," probably an indication that the nervous rather than the gangrenous form of the disease is the more common.

The New Medical Faculty in Odessa.

The Ministry of Education has laid before the Imperial Council a proposal to assign next year a sum of 400,000 roubles (about £43,000) to provide a building for the new medical faculty in the Novorossüsk, or New Russian, university in Odessa. The Odessa town council has also offered to raise its grant to the new faculty from 250,000 to 500,000 roubles—that is to say, from about £27,000 to £54,000.

The Cholera Epidemic.

Cholera still lingers in St. Petersburg. Between Dec. 2nd and 15th there were 176 cases of cholera and choleriform diarrhœa, of which 86 proved fatal. In the government of Volhynia, between Nov. 19th and 25th, there occurred 74 cases with forty deaths.

Dec. 16th (Dec. 28th).

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Cholera.

THE infected districts of Lake Menzaleh and the canal running to it from Mansourah are now all free from cholera, and, with the sole exception of Zagazig Town, the disease is now confined to Damietta and the neighbouring district on the Nile. It is interesting to note that directly it struck the Nile at a village called Mitkouli it travelled down stream on the right bank. No villages up stream, and practically none on the left bank of the Nile, have yet been attacked. During the past week there have been only 28 new cases admitted, and the number of deaths has fallen to 16 in hospital and 14 outside. The new cases are, therefore, less numerous and less fatal than in any preceding week. Nothing has occurred in Cairo or among the natives who were temporarily deported to Abbassiyeh from the one infected house. The only spot where cholera seems to be in the least active is at a village in the Gharbiyeh province, nearly opposite Damietta.

The Scavenging of Cairo Streets.

For many years previous to the English occupation of Egypt the Tanzim Department of the Public Works Ministry was responsible, among other things, for the making and repairing of roads, and for the watering, sweeping, and general cleaning of them. The Tanzim, consisting exclusively of French engineers, was purposely not dealt with by those Anglo-Indian irrigationists who came to Egypt in 1883 in order to control the Nile flood and distribute water all over the country for agricultural purposes; however, a few years later the Sanitary Department obtained leave to take over the work of sweeping and watering the streets because of the general inefficiency, and it was soon found that the new chief, an English chemist, carried out the work much more satisfactorily than the trained French engineers. In 1892 Mr. Hooker was called from this work to create a salt department for the Government, and the scavenging was allowed to lapse into the hands of the Tanzim once more. In September, 1894, an English chief was again appointed, under the Public Works Ministry, with satisfactory results. The French engineers still make and repair the roads, while the Englishman and a staff of natives water and scavenge. A rather larger area of Cairo is now being dealt with, and yet £2000 a year has already been saved. In July, 1894, no less than 130,000 tons of water were said to have been used for the streets, whereas in July, 1895, 70,000 tons were employed, and official complaints were made about the unnecessary flooding of the streets. Seven spots outside the town have been chosen for shooting rubbish, and steps are being taken to find farmers who will remove the refuse of the town for their land in properly constructed trains or boats.

Enteric Fever.

Several letters and telegrams have been received here from England during the last week or two, asking if there is more enteric fever in Cairo hotels than usual just now. In consequence of this rumour, which is not now spread for the first time, patients hesitate to come to Egypt, and some London physicians are very naturally diffident about advising them to do so. It may be well, therefore, to state, on the authority of the Sanitary Department, who receive notification of infectious diseases, that there has been no case of enteric fever in the Cairo hotels since February, 1895, when a young English lady is thought to have contracted the disease from the insanitary condition of the Opera House, which has now been overhauled by the sanitary authorities. Between the end of 1894 and February, 1895, there were in addition three enteric cases among the English and American visitors, two coming from Italy, and the third being of doubtful origin.

Cairo, Dec. 26th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Statistics of Mortality from Alcohol.

THE estimated mortality due to the effects of alcohol in this country is about 100,000 annually. Dr. Formad found at the necropsies of the Philadelphia Hospital that among 250 chronic alcoholists nearly 90 per cent. had fatty degeneration of the liver, 60 per cent. had congestion or a dropsical state of the brain, the same number an inflamed or degenerated stomach, while not quite 1 per cent. had normal kidneys. In order to be convinced of the cause of pauperism in the country we have only to examine the statistics of the liquor traffic in the United States. "According to the report of Mr. Mills, the Internal Revenue Commissioner, for the year 1892, the patrons of the saloons paid 609,000,000 dols. for whisky and 617,258,460 dols. for beer, a total of 1,226,259,460 dols., the interest of which for one minute at 6 per cent. per annum is 8515 dols. 68 cents."

Alleged Miraculous Cures.

A tramp named Schlatter, but professing to be Christ, has recently created great excitement among people suffering from nervous diseases in the city of Denver, Colorado. Three of the physicians of that city say that they know of no cures which the alleged healer effected. Another, Dr. C. J. Scott, says that so far as he knew there were no cures of any actual disease. A number of his patients who had diseases of the eyes and ears were "blessed" by Schlatter, but without any apparent result. Dr. Scott, however, recalls one of his own cases, that of a woman who was losing her

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mind. "She was extremely nervous, morose, and could not sleep," but after being "blessed" she recovered entirely and slept well, becoming quite rational. He admits that Schlatter did for her what he could not do, and adds: "The majority of humanity wants something or someone to lean upon. Schlatter's strong mind furnished that something, and many were greatly benefited in mind. He did good, and I am glad he came." The most important letter was from the President of the State Medical Society. He says he knows of several cures for which he is willing to give Schlatter credit. One is that of an aged woman who could not sleep and could get no relief from her physician. After she saw Schlatter she slept well, and has slept well ever since. All the cases of cures were cases of nervousness, and it is his opinion that Schlatter helped about 1 per cent. of all those who came to him. That would be, as he estimates it, fifteen to twenty daily. In his opinion the tramp did no harm, but considerable good, in helping a class of cases that the physicians cannot help.

Bacteriological Specimens in the Mails.

At a recent meeting of the American Public Health Association the following preamble and resolution were offered: "Whereas specimens suitable for bacteriological examination can, when enclosed in proper packages, be transported in the mails without endangering the health of persons who may handle them, and without risk of contaminating other mail matter, and whereas bacteriological examination in cases of tuberculosis and certain other infectious diseases constitutes an invaluable defence against the spread of the pestilential affections by providing an exact method for early and accurate diagnosis, therefore it was resolved that the American Public Health Association respectfully requests the Postmaster-General to so modify the order now in force that specimens of diseased tissues, when properly enclosed in approved mailing packages, may be admitted to the mails for transmission to State and municipal laboratories."

Sanitation of Railway Cars.

Dr. Orvananos of Mexico describes the opposite ideas which prevail in the United States and Mexico with reference to car ventilation, due to the different climatic conditions. In Mexico, where the railways are generally traversing high grounds, the ordinary method of opening a few windows keeps the car comfortable; while he had noticed that in America the travellers generally wished the ventilators opened and the windows closed, the reverse was the case in Mexico. He recommends the prohibition, under severe penalties, of expectorating in any part of the cars except in the cuspidors, of which a sufficient number should be provided, and which should contain a solution of bichloride of mercury of 1 in 1000.

Condensed Food as an Army Ration.

The following experiment was recently made to determine the value of a condensed ration for soldiers. A company of the Seventh Infantry at Fort Logan, near Denver, was detailed and furnished with condensed rations consisting of coffee, soup, bread, and bacon. The coffee and soup were in small tablets, which, when placed in boiling water, were ready for consumption in two minutes. The bread was in small cakes, the weight and hardness of a brick, but when moistened swelled out like a sponge. The bacon was compressed and needed only to be warmed in a frying-pan. The soldiers started out with ten days' rations, but the campaign was brought to an abrupt end after four days of fifteen-mile marches. The food not only did not satisfy the hunger or give strength, but seemed to irritate the stomach. After the first meal two of the enlisted men had to be placed under the surgeon's care. At the end of the second day thirty of the seventy men in the company were ill, and on the fourth day the whole command went into camp, and couriers were sent to town for hard-tack and ordinary coffee and bacon. Some of the soldiers were seriously ill with a stomach complaint and were confined to the hospital for several days.

Dec. 24th.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

"Christian Scientists"?

AT a coroner's inquest on a child aged six years, who had been under the treatment of a "Christian scientist," it appeared that the child had been ill for ten days and had received "mental treatment" during that time. This consisted in the "scientist" sitting near the patient with her eyes closed and silently repeating something to herself; at times the treatment was carried on by the "scientist" when some distance from the patient, then the operator was said "to take him up in thought." No medicine is used. The evidence of the medical men who performed the necropsy was to the effect that the patient died from diphtheria, and the jury brought in a verdict of "manslaughter" against Mrs. Beers, the scientist.

Life Insurance Frauds.

We seldom have to chronicle the fact that a member of the medical profession has become a party to the securing of a life insurance upon a risk which he knew to be non-insurable. A charge of fraud has, however, been preferred against the husband of a woman recently deceased, and it appeared from the medical man's own evidence that he agreed to pass the applicant for seven thousand dollars ($7000) on condition that the husband paid him one thousand dollars when the same became a claim. The answers were filled in by the practitioner who was aware that the applicant was chronically phthisical, and the magistrate committed the husband for trial.

Trinity University.

The Rev. Mr. Welch, the newly elected provost of the college, was installed as Vice-Chancellor with the usual interesting ceremony at the Convocation held on Nov. 13th. The new provost enters upon his duties with the highest recommendations from the "old land." The annual dinner of the medical students was held on Nov. 28th and was attended with more than usual interest. The chief speakers were Dr. Montague, M.P., Sir C. H. Tupper, and the Lieutenant-Governor of the province.

Visit of the British Association in 1897.

The local committee, composed of representatives of the various scientific and literary societies, the corporation, and colleges, reported that aid had been promised to the extent of 22,500 dols., of which the Dominion Government contributes 10,000 dols., the Provincial Government 7500 dols., and the corporation of the city of Toronto 5000 dols.

St. John Ambulance Association Centre.

His Honour, the Lieutenant-Governor, presided at a meeting held at the Military Institute on Nov. 25th to consider the formation of a branch of the above-mentioned association to comprise the province of Ontario, local centres to be formed as opportunity may arise. The work is being promoted by Dr. G. S. Ryerson, M.L.A., Deputy Surgeon-General. Your correspondent some years ago presented the claims of the Association to the Chief of Police of the Toronto force, with the result that many of the badges of the Association are to be seen on the arms of the men and officers.

Death under Chloroform.

"Charles James Fox" died a few days ago at Gravenhurst from an overdose of chloroform. I believe he was at one time a prominent figure in the dental profession in England. He came to this country some fifteen years ago and settled in the southern part of this province.

Toronto, Dec 24th.

Obituary.

GEORGE HUGH KIDD, M.D. EDIN., F.R.C.S. IREL., &c.

A GREAT man, and one universally respected, has fallen out of the ranks of the profession. Dr. Kidd died on Dec. 26th, 1895, at his residence, 58, Merrion-square, Dublin, at the age of seventy-one. It was known for some time past that his health was such as to give his many friends occasion for anxiety, and the news came to them with more grief than surprise. Dr. Kidd was the son of parents of Scotch extraction. He was born in Armagh. He graduated in the University of Edinburgh in 1845, taking a gold medal, of which it is recorded there were in that year four, one more than usual, Dr. Kidd being called first for the honour. His thesis on that occasion was on Vaccination, its protective power, and the proofs of the necessity of revaccination, showing that at that early age he was alive to the tendency of the virtue of the first vaccination to fail.

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It would have been well if that tendency had been more seriously recognised and insisted on by medical men. Much of the misunderstanding on the subject which has given some people occasion to denounce a discovery to which many of them owe their lives would thus have been saved. At a very early age, about twenty-one, he was appointed Demonstrator of Anatomy, and afterwards Lecturer on Anatomy and Physiology, in the Park-street School of Medicine, Dublin, and in 1849 he joined the Peter-street School as a Lecturer on Anatomy, which office he held for nearly ten years. On relinquishing this he entered on private practice. Dr. Kidd's reputation is chiefly in connexion with obstetrics and gynæcology. In this department of work in Dublin he was, in his day, *facile princeps*. He had a large consulting and private practice. In 1876 he was appointed Master of the Coombe Lying-in Hospital, in which his obstetric genius and judgment found full field for their exercise. He held this office for seven years with the greatest distinction and with much advantage to the reputation of the hospital. Other hospitals elected him to office, and the medical and obstetric world heaped office and honours on him. He was elected Fellow of the Royal College of Surgeons in Ireland in 1844, a Member of the Council in 1872, and President in 1876, the same year in which he was elected Master of the Coombe Lying-in Hospital. He was at various times President of the Royal Academy of Medicine, Ireland, of the Dublin Obstetrical Society, and Dublin Pathological Society. The Obstetrical Societies of London and Edinburgh elected him an Honorary Fellow. The Gynæcological Societies of Boston and Berlin elected him a corresponding member. He was consulting obstetric surgeon to the Richmond and Mercer's Hospitals, &c.

Dr. Kidd does not appear to have written much, but his professional judgment, his large experience, and his strong common sense were universally recognised. When the Direct Representation of the profession in the General Medical Council was conceded by the Act of 1886 it was remarkable that the practitioners of Ireland elected him for their representative by a majority of nearly 300 over his next competitor, Dr. Jacob. Increasing deafness impaired of late years his influence in the Council, but his judgment was greatly respected on all questions of medical education.

Dr. Kidd was not made of the stuff which permitted him to suppress his political opinions, even in stormy and unpopular days; but he was so transparently honest and strong in his convictions that those who differed from him did not the less respect him. He leaves a widow and young children to feel acutely their great loss. They will have the consolation of knowing that they do not grieve alone, but have the sympathy of Irishmen of all parties, of his colleagues in Ireland and in the General Medical Council, of the university of which he was so creditable a graduate, and of the profession of which he was an ornament.

JAMES ROUSE, F.R.C.S. ENG.

CONSULTING SURGEON TO ST. GEORGE'S HOSPITAL.

THE death of Mr. James Rouse, which occurred on Tuesday, Dec. 24th, 1895, at his house in Wilton-street, London, S.W., can hardly have come as a surprise to his numerous friends as his health had for several years been very precarious, but it has none the less been a source of great grief to them. In particular has this feeling been manifested by his numerous old pupils, for Mr. Rouse was for generations at St. George's Hospital the students' friend. He knew the men by sight. He never forgot their names, and he was aware of much of their private circumstances, and was ready to be their friend in times of trouble. Mr. Rouse received his medical education at St. George's Hospital, and originally intended to go into general practice. A very genuine love of surgery, however, determined him to alter his plans, take the Fellowship of the Royal College of Surgeons of England, and compete for a position on the staff of his hospital. This he obtained, and, in addition to being surgeon to St. George's Hospital, he was surgeon to the Royal Westminster Ophthalmic Hospital, ophthalmic surgeon to the Eastern Counties Asylum for Idiots, and to the School for the Indigent Blind. Mr. Rouse was a careful and successful operator and a good clinical lecturer. Clear in argument, simple in diction, and familiar in manner, his homely, jocose little discourses in the theatre or at the bedside remained in the memory of his listeners when more elaborate pathological disquisitions and higher flights of rhetorical fancy had slipped away. He was not a great surgeon or an ambitious one; he was not an initiator of any methods of treatment or theories in etiology; but his was a sound, practical and reliable opinion on surgical matters, and he was a safe operator. He filled the public positions that he occupied adequately, and for many years had a large private practice. His pretty little house in Wilton-street contained many beautiful objects of art, pictures, coins, jewels, and medallions, for which things he had the genuine feeling of an artist, as all know who have had the pleasure of being discoursed to by him upon them.

We conclude as we began by saying that in James Rouse many generations of St. George's Hospital have lost a true friend, and one whose memory they will ever keep green.

CHARLES BARTHOLOMEW MOODY, M.R.C.S. ENG., L.S.A., J.P.

MR. MOODY'S death, although deeply lamented by many in Grimsby where he had been in practice for so many years, was not unexpected by his friends, as his health had suffered greatly during the last eighteen months. He was born in Grimsby in 1815 and attended medical classes at the Hull School of Medicine and at University College, London. In 1839 he received the qualifications of M.R.C.S. Eng. and L.S.A., soon afterwards commencing practice in his native town, where he, in course of time, took a prominent part in political and municipal life. He became a town councillor in 1850 and was elected mayor in 1855 and 1856. In addition to having been borough coroner from 1891 to March, 1895, and senior surgeon to the Grimsby and District Hospital, he was at the time of his death, which took place on Dec. 19th, the county coroner for the Caistor Division of Lincolnshire, and the Senior Justice of Peace for the borough of Grimsby.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent medical men are announced:—Dr. Terrillon, *professeur-agrégé*, of Paris.—Dr. Alex. Wilmart, chief of anatomical studies at the Hôpital St. Jean, Brussels.—Dr. Sickenberger, Professor of Chemistry and Pharmacology in the Medical School of Cairo.

Medical News.

UNIVERSITY OF LONDON.—The following candidates passed the B.S. Examination recently:—

EXAMINATION FOR HONOURS—SURGERY.

FIRST CLASS.

Turner, William (Scholarship and Gold Medal), King's College.
Russell, Alfred Ernest (Gold Medal), St. Thomas's Hospital.
†Shaw, Harold Batty, University College.
Hull, Charlotte Elizabeth, Royal Free Hospital.
Hunt, George Bertram, University College.
Sloane, John Stretton, B.Sc., St. Bartholomew's Hospital.
Pugh, William Thomas Gordon, Middlesex Hospital.
Barnard, Harold Leslie, London Hospital.

SECOND CLASS.

Thomas, Thomas Morrell, Guy's Hospital.
Berry, Frances May D., M.D., London School of Medicine and Royal Free Hospital.
Chaning-Pearce, David Arnold, Guy's Hospital.

† Obtained the number of marks qualifying for a gold medal.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the under-mentioned subjects:—

Surgery.—S. B. Blomfield, Westminster Hospital; E. C. Bond, Royal Free Hospital; A. P. Coker, Middlesex Hospital; F. C. Langford, Charing-cross Hospital; A. C. McLean, King's College Hospital; J. G. Owen, Charing-cross Hospital; C. J. Palmer, Birmingham and Liverpool; F. E. McGill Rimer and E. T. V. von Himpe, Royal Free Hospital; S. J. Wareham, Charing-cross Hospital.
Medicine, Forensic Medicine, and Midwifery.—T. Jones, Manchester; A. T. Morgan, Bristol; A. C. Thornton, St. Thomas's Hospital.
Medicine and Forensic Medicine.—P. R. Wallis, University College.
Medicine.—R. Goulden, Manchester; G. G. B. Hein, St. Thomas's Hospital; W. A. Montgomery, St. Thomas's Hospital; J. H. R. Pigeon, Bristol.
Forensic Medicine and Midwifery.—E. R. Bowen, Brooklyn and Bristol.
Forensic Medicine.—H. Clapham, Sheffield; J. Hepple, Leeds.
Midwifery.—C. C., Preston, Manchester.

To Messrs. Blomfield, Coker, Hein, Hepple, Langford, Montgomery, Owen, Palmer, Pigeon, Preston, Wareham, and Miss von Himpe was granted the diploma of the society entitling them to practise medicine, surgery, and midwifery.

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ROYAL COLLEGE OF SURGEONS OF ENGLAND: MEETING OF FELLOWS.—A meeting of Fellows was held on the 2nd inst., when eighty-three Fellows were present, the President, Mr. Christopher Heath, being in the chair. A resolution, moved by Mr. Herbert W. Page and seconded by Mr. Gant, was carried by a large majority, to the effect "that it is desirable to give to the Members of the College direct representation upon the Council." Mr. Clement Lucas moved, and Mr. Norton seconded, a resolution in favour of the admission of women to the diplomas of the College. The resolution was carried, 45 Fellows voting in its favour and 10 voting against it.

ON the 21st of this month the *Guardian* completes its fiftieth year. With the paper of the following day—Wednesday, Jan. 22nd—will be published a special supplement containing a review of the origin and history of the paper. The story of the rise and progress of a successful journal always makes good reading, and to the theologically minded a comparison of the attitude of the Church in 1896 with its attitude in 1846 towards many important social questions will be deeply interesting. A *résumé* of the work of the *Guardian* during half a century will enable us to draw such comparisons.

BRIGHTON POOR-LAW LUNATICS.—In the six months between June 21st last and Dec. 5th no less than 43 patients, 24 males and 19 females, were admitted into the local asylum at the charge of the parish of Brighton. Since he former date 7 males and 15 females (22 patients) have been discharged as cured, and 14 have died (8 males and 6 females). Two patients have been transferred to other unions, and there is one patient in the Hanwell establishment. There has been an addition of 6 patients on the half-year, the present figures being: males, 147; females, 191; total, 338—as against 136, 196, and 332 respectively at the date of the last report.

FOREIGN UNIVERSITY INTELLIGENCE.—*Amsterdam:* Dr. M. Straub has been promoted to the Ordinary Professorship of Ophthalmology.—*Breslau:* Dr. K. Hürthle has been promoted to an Extraordinary Professorship of Physiology.—*Heidelberg:* Dr. G. Aschaffenburg has been recognised as *privat-docent* in Psychiatrics.—*Naples:* Dr. G. Corrado of Cagliari has been appointed Extraordinary Professor of Forensic Medicine. Dr. P. de Michele has been recognised as *privat-docent* in General Pathology; Dr. V. Salvati and Dr. A. Radice as *privat-docenten* in Surgical Pathology; Dr. F. de Grazia as *privat-docent* in Medical Pathology; and Dr. G. Spinelli as *privat-docent* in Gynæcology.—*Rome:* Dr. V. de Semo has been recognised as *privat-docent* in Medical Pathology.—*Vienna:* Dr. H. Schlesinger has been recognised as *privat-docent* in Internal Medicine, and Dr. A. Elschnigg of Gratz as *privat-docent* in Ophthalmology.—*St. Petersburg (Military Medical Academy).*—Dr. T. Pavloff has been recognised as *privat-docent* in Dermatology.

PRESENTATIONS TO MEDICAL MEN.—Mr. H. E. Hoffmeister, M.B., B.C. Camb., L.R.C.P Lond., M.R.C.S., house surgeon to the Stockton Hospital, Stockton-on-Tees, was presented at the hospital, on Tuesday last, by the representatives of the workmen on the general committee of management, on the occasion of his retiring from the post of house surgeon, with an address inscribed on vellum, which testified to his skill, ability, and attention during the two and a half years that he had held the office of house surgeon to the institution.—Mr. John Latchford, M.B., L.R.C.S. Irel., has been presented with a testimonial on his retiring, after seven years' service, from the post of superintendent to the London Medical Mission.—Mr. George W. H. Tawse, M.B., C.M. Aberd., late house surgeon to the Whitehaven and West Cumberland Infirmary, Whitehaven, has been the recipient of a gold watch from members of the committee of the infirmary, the staff, patients, and friends, as a testimony of his devoted and efficient services during his two years' residence there.—Dr. T. C. Hood, on his leaving Sorell, Tasmania, was entertained at a farewell dinner by the magistrates of the district, and also presented by the ladies with a silver card case and cigar case suitably inscribed.—Mr. R. H. Perks, M.D. Brux., F.R.C.S. Eng., late superintendent of the Adelaide Hospital, South Australia, has been the recipient from the nursing staff of the institution of a camera as a mark of esteem.

LONDON POST-GRADUATE COURSE.—Dr. Buzzard has been succeeded in the office of Treasurer of this Course by Dr. J. F. Payne, 78, Wimpole-street, W., to whom all business communications should in future be made.

DIPHTHERIA IN LONDON.—The death-roll from diphtheria in London was again extremely heavy last week, exceeding the decennial average for the last week of the ten years 1885–94 by no fewer than 34 deaths. In the three preceding weeks of December the deaths had numbered 69, 63, and 62 respectively. There were 7 deaths of persons belonging to Camberwell, 6 to Chelsea, 5 each to Islington and Whitechapel, and 4 respectively to Hackney, Greenwich, and Plumstead sanitary areas. The deaths were all, with 4 exceptions, those of young persons aged between one and twenty years. The admissions to hospital last week were 93 in number, as compared with 114, 91, and 104 in earlier weeks. On Saturday last the patients remaining under treatment totalled 705. In the outer ring of the metropolis there were in addition 15 deaths registered from the disease, of which 6 were those of persons belonging to the West Ham district. Thus there were in one week 86 deaths in and around London from this malady, which seems to baffle all the efforts now put forth to curtail its extent of fatality.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADAM, G. R. W., M.B., Ch.M. Edin., has been appointed an Examiner in Obstetrics at the Melbourne University, Victoria, Australia.

BALDWIN, GEORGE P., L.R.C.P., L.R.C.S. Edin., has been appointed Resident Medical Superintendent to the Auckland Hospital, New Zealand.

BELDING, D. T., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer by the East Dereham Urban District Council.

BUCK, L. A., M.R.C.S., has been reappointed Resident Medical Officer for the Workhouse, Bolton.

COOK, JOHN W., M.D. Aberd., M.R.C.S., has been appointed Medical Officer of Health for Walton-on-the-Naze.

COOPER, L. V., L.R.C.P., L.R.C.S. Edin., has been appointed an Honorary Medical Officer of the Hospital for Sick Children, Queensland.

DICK, JAMES A., M.D., M.S. Edin., has been appointed Vaccinator for the District of Sydney and Suburbs, New South Wales.

DUNCAN, S. V., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed *pro tem.* Resident Government Medical Officer, York, Western Australia.

FROST, J. KINGDON, M.R.C.S., L.S.A., D.P.H. Camb., has been reappointed Medical Officer of Health to the Madley District of the Dore Union, Herefordshire.

GARTH, J., L.R.C.P., L.M. Irel., has been reappointed Medical Officer of Health by the Fulwood Urban Council.

GARSTANG, T. W. H., M.R.C.S., has been appointed Medical Officer of Health by the Bucklow Rural District Council.

GILES, H. O'H., M.B., Ch.B. Adel., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Health Officer for Wyndham Shire, Victoria, Australia.

HALE, G. E., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer by the Eton Board of Guardians and Rural District Council.

HOGGAN, BERTRAM B., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Health Officer for Romsey Shire, Victoria, Australia.

HUNTER, W. L., M.D., B.Ch. Dubl., D.P.H. Camb. and Eng. Conj. Board, has been appointed an Inspector under the Food and Drugs Act for Pudsey by the County Council.

LOVEGROVE, T. H., M.R.C.S. Eng., has been appointed Principal Medical Officer and Superintendent of Vaccination, Western Australia, vice A. R. Waylen, retired.

PERROTT, C. I., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer of Health by the Kingswood Urban District Council.

PHILLIPS, G. H., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed an Official Visitor to the Hospital for the Insane at Parramatta, New South Wales, vice W. Brown, resigned.

PIRIE, R. S., L.R.C P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Assistant Medical Officer of the St. Andrew's District, and Medical Officer of Ovenstone Hospital.

RAMSEY, R., M.B., M.S. Edin., has been appointed Resident Medical Officer of the Murchison Goldfield District and Public Vaccinator of the Urban and Suburban Districts of Cue, and the Rural District of Murchison Goldfield, Western Australia.

ROBERTS, A. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Malling Rural Sanitary District, vice H. Butterfield.

ROE, ALFRED J. S., L.R.C.P., L.R.C.S. Irel., has been appointed Resident Surgeon to the Hull and Sculcoates Dispensary.

ROE, ARTHUR LEGGE, L.R.C.P., L.R.C.S. Irel., has been appointed Honorary Ophthalmic Surgeon to the Hull and Sculcoates Dispensary.

SADLER F. J., M.B., B.Ch., Oxon, has been appointed Assistant Medical Officer of Health by the Barnsley Town Council.

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SHARMAN, M., M.B., C.M. Glasg., M.R.C.S., has been reappointed Medical Officer for the Harefield Sanitary District of the Uxbridge Union.

SNOWBALL, WILLIAM, M.B., Ch.B. Melb., L.R.C.S. Edin., has been appointed a Member of the Medical Board of Victoria, Australia, vice Dr. Jonasson, deceased.

SPENCER, W., M.D. Brux., L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Honorary Medical Officer to the Society for the Prevention of Cruelty to Children, also Honorary Physician to the "Sydney Rescue Work Society," New South Wales.

SPICER, SCANES, M.D. Lond., M.R.C.S., has been appointed an Honorary Physician to the Royal Society of Musicians of Great Britain.

STEWART, GEORGE E., M.B., C.M. Edin., has been appointed Assistant House Surgeon to the Scarborough Hospital and Dispensary.

TAYLOR, HUGH, L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Smallburgh Union.

THOMPSON, H. CAMPBELL, M.D. Lond., M.R.C.P., has been appointed Medical Registrar to the Middlesex Hospital.

WALFORD, E., M.D. Durh., M.R.C.S. Eng., D.P.H. Camb., has been reappointed Medical Officer of Health for the Cardiff Port Sanitary District.

WRIGHT, J. F., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Western Bolton Sanitary District of Great Bolton Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights, and attendance.

CHILDREN'S HOSPITAL, Nottingham.—House Surgeon (non-resident) for six months. Salary at the rate of £100 per annum.

COUNTY ASYLUM, Prestwich, near Manchester.—Assistant Medical Officer, unmarried. Salary commences at £100 a year, increasing to £200, with apartments, board, attendance, and washing.

COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer, unmarried. Salary commences at £100 a year, with prospect of an annual rise of £25 up to £200, together with furnished apartments, board, attendance, and washing.

COUNTY ASYLUM, Upton, near Chester.—Junior Assistant Medical Officer. Salary £120 per annum, with board (no liquors), lodging, and washing.

EAST SUFFOLK AND IPSWICH HOSPITAL, Ipswich.—Honorary Ophthalmic Surgeon.

FISHERTON HOUSE ASYLUM.—Assistant Medical Officer, single. Salary £100 per annum, with board, lodging, and washing. Apply Dr. Finch, the Asylum, Salisbury.

GENERAL INFIRMARY AND DISPENSARY, Doncaster.—In-door Dispenser and Assistant. Board, lodging, and washing provided.

HASTINGS, ST. LEONARD'S, AND EAST SUSSEX HOSPITAL, Hastings.—Assistant Physician.

HOSPITAL FOR WOMEN, Soho-square, London, W.—Registrar, for twelve months. Honorarium 25 guineas.

HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer at the Small-pox Hospital Ships in the River Thames at Long Reach, Dartford, Kent. Unmarried. Salary £160 per annum the first year, £180 the second year, and £200 the third and subsequent years of service, with board, lodging, attendance and washing. Applications to the Clerk to the Board, Norfolk House, Norfolk-street, Strand.

PARISH OF ROUSAY AND EGILSHAY.—Resident Medical Officer. Salary £51 sterling per annum. Applications to Inspector of Poor, Rousay, Orkney.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. Board, residence, and washing provided.

ROYAL FREE HOSPITAL, Gray's-inn-road, London.—Assistant Physician for Out-patients.

ROYAL HANTS COUNTY HOSPITAL, Winchester.—House Surgeon. Salary £100 per annum, with board and lodging.

SCOTTISH PRISON SERVICE.—Resident Medical Officer. Salary commences at £250, with a house. Applications to the Secretary of the Prison Commission for Scotland, 6, Rutland-square, Edinburgh.

SHEFFIELD CHILDREN'S HOSPITAL.—House Surgeon. Salary £70, with furnished apartments, rations, washing, fuel, light, and attendance.

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, Welbeck-street, London, W.—Physician.

Births, Marriages, and Deaths.

BIRTHS.

ALLPORT.—On Dec. 24th, at Wilsham, Casewick-road, Norwood, the wife of Alfred Allport, M.R.C.S., of a daughter.

JOLLY.—On Dec. 25th, at Godstone House, Sydenham, the wife of S. Blake Jolly, M.B. Cantab., M.R.C.S., of a daughter.

KENT.—On Dec. 23rd, at 3, Minard-terrace, Partick-hill, Glasgow, the wife of R. T. Kent, M.A. Oxon., F.R.C.S., of a son.

WILKINSON.—On Dec. 26th, at Kirton, Boston, Lincolnshire, the wife of John Wilkinson, M.B., C.M. Edin., of a daughter.

MARRIAGE.

GROSS—HARKER.—On Dec. 28th, at the Parish Church, Blaxhall, Suffolk, Charles Frederick Gross, M.R.C.S., L.R.C.P., son of Arthur Spurling Gross, of Woodbridge, to Dorothy Lucy, younger daughter of the late James Cumming Harker, of Liverpool.

WILKINSON—FOSTER.—On Dec. 28th, at Christ Church, Harrogate, by the Rev. R. W. Fawkes, George Wilkinson, B.A., F.R.C.S., of Harcourt-road, Crookesmoor, Sheffield, to Alice Foster, niece of Heaton Foster, of Hornsea, East Yorkshire.

DEATHS.

CHIPPENDALE.—On Dec. 23rd, at 16, Upper Phillimore-place, Kensington, John Chippendale, Esq., F.R.C.S. Eng., in his 91st year.

HUNT.—On Dec. 27th, 1895, suddenly, at Christchurch, Hants, Bertram Hunt, M.B. Oxon., M.R.C.S., aged thirty-nine.

JACKSON.—On Dec. 29th, at 53, Wilkinson-street, Sheffield, Arthur Jackson, M.R.C.S. Eng., in his 52nd year.

JACKSON.—On Dec. 22nd, at Shepherd's Bush, London, Richard Jackson, M.R.C.S. (Eng.), L.R.C.P. (Lond.), L.S.A. (Lond.), fourth son of the late Richard Jackson, Beechwood House, Fulford-road, York.

KIDD.—On Dec. 26th, at Merrion-square, Dublin, George Hugh Kidd, M.D. Edin., Past President Royal College of Surgeons, Ireland, and Royal Irish Academy of Medicine, aged 71.

ROUSE.—On Dec. 24th, at Wilton-street, Grosvenor-place, James Rouse, F.R.C.S. Eng., late Senior Surgeon of St. George's Hospital, aged 65.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.

BOOKS, ETC., RECEIVED.

BRIGGS, WILLIAM, Wesley-buildings, Toronto.

Consumption: Its Nature, Causes, and Prevention; with an Outline of the Principles of Treatment. By Edward Playter, M.D. 1896. pp. 343.

CHURCHILL, J. & A., New Burlington-street, London, W.

The Physiology of the Carbo-hydrates: An Epicriticism. By F. W. Pavy, M.D., LL.D., F.R.S. 1895. pp. 141. Price 3s. 6d.

HODDER AND STOUGHTON, Paternoster-row, London, E.C.

A Doctor of the Old School. By Ian Maclaren. 1895. pp. 208. Price 9s.

KIMPTON, H., High Holborn, London, W.C.

A Manual of Obstetrics. By A. F. A. King, A.M., M.D. Sixth edition. 1896. pp. 533.

LEA BROTHERS AND Co., Philadelphia, U.S.A.

System of Surgery. Edited by F. S. Dennis, M.D., assisted by John S. Billings, M.D. Vol. III. Illustrated. 1896. pp. 919.

MACDOUGAL, ALEX., Mitchell-street, Glasgow.

A History of the Chronic Degenerative Diseases of the Central Nervous System. By Thos. K. Monro, M.A., M.D. 1895. pp. 82.

PENTLAND, YOUNG J., Edinburgh and London.

The Pathology and Treatment of Venereal Diseases. By Robert W. Taylor, M.D. Illustrated. 1896. pp. 1002.

PUTNAMS' SONS, Bedford-street, London, W.C.

Lectures on Appendicitis and Notes on other subjects. By R. T. Morris, A.M., M.D. Illustrated. 1895. pp. 163. Price 9s.

SAMPSON LOW, MARSTON, AND Co., Fetter-lane, Fleet-street, London, E.C.

Napoleon III. (My Recollections). By Sir William Fraser, Bart. pp. 274.

SAUNDERS, W. B., Walnut-street, Philadelphia, U.S.A.

A Manual of the Practice of Medicine. By George R. Lockwood, M.D. Illustrated. 1896. pp. 935.

SMITH, ELDER AND Co., Waterloo-place, London, S.W.

Dictionary of National Biography. Edited by Sidney Lee. Vol. XLV. Pereira—Pockrich. 1896. pp. 457.

SWAN SONNENSCHEIN AND Co., Paternoster-square, London, E.C.

Public Health in European Capitals. By Thomas M. Legge, M.A., M.D. Oxon., D.P.H. Cantab. 1896. pp. 201. Price 3s. 6d.

WHITTAKER AND Co., White Hart-street, Paternoster-square, London, E.C.

Whittaker's Windsor Peerage, Baronetage, and Knightage for 1896. pp. 736.

"Our Treasures," and How to Keep Them (The Liquor Carnis Company, Aston Clinton, Bucks; London Offices, 28A, Farringdon-street, E.C.)—Latent Gastric Ulcer; by F. H. Alderson, M.D.; reprint from the "Provincial Medical Journal," December, 1895, Leicester; Proceedings of the Incorporated Society for Psychical Research; December, 1895: Part 29, vol. xi. (Kegan Paul, Trench and Co., Charing-cross-road, London, W.C.) price 4s.—Chemists' Vest Pocket Diary and Ready Reference, 1896 (Burroughs, Wellcome, & Co., London, E.C.).—The British Gynæcological Journal; edited by L. Napier, M.D., F.R.S. Edin.; Part 43; November, 1895 (John Bale and Sons, London); price 3s. 6d.—The Thyroid Treatment of Myxœdema and Sporadic Cretinism, with Notes of Twenty-three Cases of Myxœdema and Five Cases of Sporadic Cretinism, treated by Thyroid Extract; by Byrom Bramwell, M.D., F.R.C.P. Edin.; reprint (Young J. Pentland, Edinburgh and London; 1895). Magazines for January, 1896: Chapman's Magazine, Westminster Review, Illustrated English Magazine, Boy's Own Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, Pall Mall Magazine, Contemporary Review.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 2nd, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Dec. 27	30·20	N.E.	38	37	41	39	33	0·11	Raining
" 28	30·35	N.E.	35	34	49	49	33	...	Overcast
" 29	29·92	W.	49	48	52	52	35	0·17	Cloudy
" 30	29·72	S.W.	52	51	60	56	48	0·29	Raining
" 31	29·85	S.W.	52	51	59	54	51	0·06	Overcast
Jan. 1	30·18	S.	46	44	54	51	44	...	Cloudy
" 2	30·17	S.	51	50	52	51	45	0·02	Raining

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

TO ADVERTISERS.

THE great pressure on our advertising space this week has necessitated the holding over of several of our clients' announcements.

THE INDEX TO THE LANCET.

THE Index for the half-year ending Dec. 31st was given in last week's issue, which completed the second volume of the year 1895. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*.

To be obtained on application to the Manager, accompanied by remittance.

CÆSAREAN SECTION PERFORMED BY A CURÉ.

AN ecclesiastic of Olliarques, in France, recently opened the abdomen of a pregnant woman, using an ordinary pocket-knife, in order that he might administer baptism to the infant, which, however, was dead when extracted. Probably this illegal operator believed that the mother's life had likewise ceased when he commenced; but as there seem to be some grave doubts on the point the matter has been referred to the judicial authorities.

MEDICAL OFFICERS OF HEALTH AND NOTIFYING PRACTITIONERS.

IT is inevitable that some friction should occasionally arise between medical officers of health and notifying practitioners. The difficulty in this case is occasioned not so much by a difference of diagnosis as by the procedure and by the tone of the letters and the respective parties, whom we shall designate as A, B, C—letters which imply the practitioners concerned in the order in which they were brought into the case. We shall answer briefly the questions put to us by A.:—(1) The medical officer (B) was not justified in saying that A had given *no* instructions as to isolation and disinfection; (2) the medical officer is not to be blamed for knowing the very wholesome rule of the infirmary—that the house surgeon shall not attend a case of scarlet fever; and (3) the medical officer goes far to explain, and in explaining to excuse, his action in advising the parent to call in another medical man. He erred in not communicating with A, who had notified the case, and conferring in a friendly way on the course to be pursued. The general result of our view of the case is that the letters on both sides are unfortunate in tone and language. A would have done well, instead of writing, to have seen the medical officer of health, and B would have saved all the discord by a personal conference with A when he found reason for dissenting from his diagnosis. We should recommend both parties to reconsider the whole case in conversation and come to a friendly understanding. If B's statement is correct that C was the usual medical attendant it was natural that he should be called in, and we see no object in complicating the controversy by blaming him.

Dr. W. Woodward.—There is a disposition to throw such appointments open to all the members of the profession that care to be appointed. On the supposition that care is taken to exclude unfit persons—in other words, to secure that the persons benefited are well selected—it seems to us that this is the principle most likely to secure the harmony and goodwill of the profession. Where an institution has been worked on a principle of restriction, and is working well, any change should be made tentatively and gradually.

A QUESTION OF ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—As there have been several letters lately in THE LANCET concerning the good feeling between consultants and general practitioners, I should much like your opinion on the following points. A gentleman residing in a suburb of a large town for several years does only consulting work in town and is called in by his medical neighbours in consultation. He starts in the said suburb as a general practitioner without giving notice to his medical neighbours. He holds a hospital appointment in the town which occupies much of his time. In case of any of his patients requiring immediate medical aid and calling the nearest medical man in, ought the latter to observe the ordinary etiquette of the profession and act only as the absentee's substitute?

I am, Sirs, yours truly,

Dec. 30th, 1895. DUBITANS.

*** The inference we are to draw is that the former consultant under that guise got introductions to the patients of his brethren and has later proceeded to attend them as their family practitioner. This can be the only offence he has committed, and it is not clear from our correspondent's letter that he is being actually accused of it. There can be no doubt that such a course, if deliberately planned, is unprofessional and mean; and, without counselling tactics of retaliation, we still feel that the offender has placed himself in a position where he cannot complain if an attitude of strict medical etiquette is not maintained towards him by others. But is "Dubitans" certain that the object of his letter may not have a very satisfactory explanation?—ED. L.

PILOCARPIN OINTMENT IN NEPHRITIS.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of July 6th, 1895, p. 47, there is mention made of experiments with pilocarpin used as an ointment in cases of nephritis. The ointment is to be rubbed into the skin. Will any of your readers, or perhaps the originator of the treatment himself, be good enough to tell me if it is likely to prove useful in a case of two years' standing? The quantity of albumin is about one-ninth, and the patient feels perfectly well. Does the treatment necessitate staying in bed, or does it interfere in any way with the daily routine?

I am, Sirs, yours truly,

Eastbourne, Dec. 31st, 1895. O. H.

SURGEONS AND COÖPERATION WITH HOMŒOPATHS.

A correspondent ("Hon. Secretary") asks, "if sent for by a homœopath to an urgent surgical case, what would be the proper attitude for the surgeon to adopt towards him and his patient?" The question is an old one, and the answer is not difficult. A surgeon would be justified on the score of humanity in giving his immediate surgical assistance in such a case, but he should not agree to continue in attendance with a practitioner who has a peculiar and unrecognised set of medical principles, which, in the surgeon's opinion, might compromise the interests of the patient.

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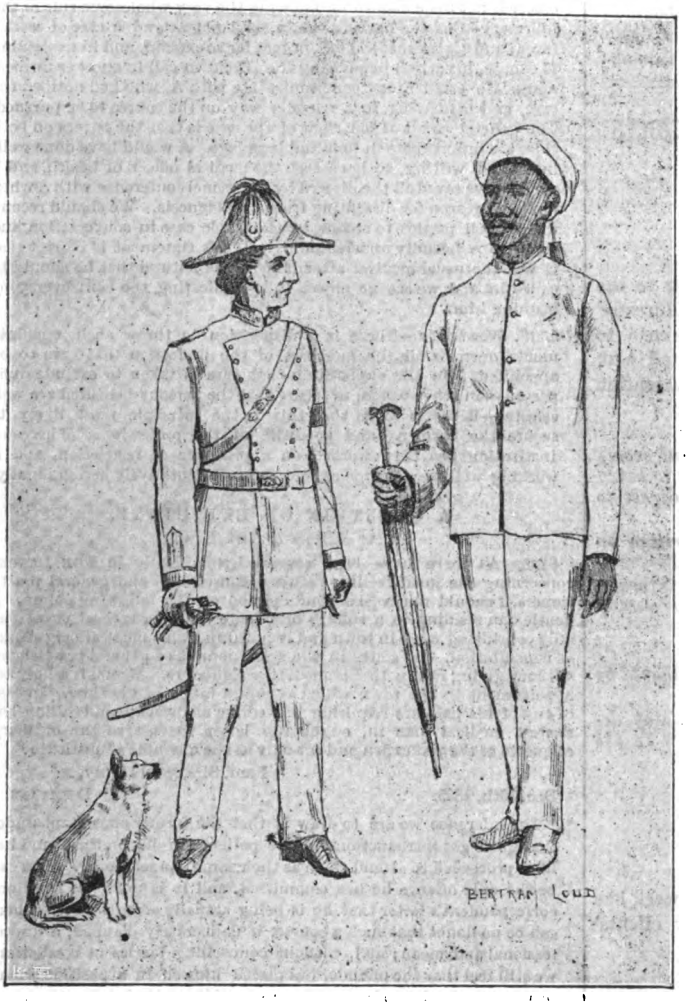
JAMES BARRY, M.D., INSPECTOR-GENERAL OF HOSPITALS, 1862.

THE portrait here given of the notorious lady who figured as a medical officer in the army from 1813 till 1865 is reproduced from the frontispiece by Bertram Loud to Colonel Rogers's reproduced novel, "A Modern Sphinx." In an introductory chapter Colonel Rogers explains the reappearance of his work and quotes portions of the lengthy correspondence carried on in THE LANCET for several weeks lately concerning the personality of this most remarkable physician. The book has been brought out in a costly manner, and we commend its perusal



to all whose interest has been aroused by letters which we published. Only 200 copies are available, which, by-the-bye, are published by subscription, and application for copies must be made direct to the author at the Savage Club, Adelphi, W.C.

One of the Medical Staff.—We are of opinion that E. should be formally elected before acting in the cottage hospital. We are writing in ignorance of the rules of this particular hospital; but if it is administered, like most other hospitals, by a duly elected staff, our contention is obviously sound.

IS GASTRO-INTESTINAL ASEPTICITY IMPOSSIBLE?

To the Editors of THE LANCET.

SIRS,—French authorities have pronounced intestinal asepticity as impossible by all agents known to them. But they have not tried the biniodide of mercury. Dr. Clement Luff, using my prescription for this purpose, cured cent. per cent. of cases of infantile diarrhœa caused by abnormal ferments in the tract in 1889, and reported his cases before the Harveian Society in November. This was reported in the *British Medical Journal* of Nov. 16th that year. Let anyone give one-twelfth of a grain of Messrs. Burroughs and Wellcome's tabloids of "iodic hydrarg." three times a day, and in two or three days the intestinal contents will be aseptic.

I am, Sirs, yours faithfully,

C. R. ILLINGWORTH, M.D., D.P.H.

Ritherdon-road, S.W., Dec. 15th, 1895.

A PLEA FOR THE HOUSEHOLDER.

To the Editors of THE LANCET.

SIRS,—I have for many years past had experience in the principles which should guide in determining the best method of rendering a house sanitary, and, as a late member of the Sanitary Committee of Fulham, I have had full opportunity of becoming acquainted with the manner in which the provisions of the Public Health Acts are carried out. I may say that this experience would not lead me into the error which brought upon the correspondent the well-deserved rebuke of the medical officer of health for Islington. But, as a layman, I should like the interests of both owners and occupiers to be taken into consideration a little more if possible. Let me illustrate my meaning by a quotation from the recently published report of the medical officer of health for this district. On page 24 it is stated: "In a great number of instances, when inquiries were being made as to the probable source of infection, complaints were made of the smells arising from an adjacent open manhole or ventilator; *and there certainly was a larger proportion of cases in the houses near the manholes than elsewhere.* [The italics are mine.] Thus of the 231 cases 96 occurred in houses situated within ten yards of a sewer ventilator, and 64 in houses at a distance of from ten to twenty, and as the distance between these ventilators averages about eighty yards there were more than twice as many cases in houses within twenty yards as there were in an equal number of houses more than twenty yards from a ventilator. It is quite possible that the offensive emanations from these ventilators to which the occupants of adjacent houses are constantly exposed may have such an injurious effect on their general health as to predispose to the disease." Too much stress cannot be laid on the concluding paragraph taken in connexion with the return given on page 22 of the same report, in which it is shown that during the twelve months no fewer than 342 cases of diphtheria and membranous croup were notified. Of this number 108 are reported as having died. Thus there is a death-rate from this cause of above 1·0 per 1000, as compared with 0·6 for the whole of London, with only two exceptions, but the mortality was 31·6 per cent. of the number of cases. I am credibly informed that there is a certain form of tonsillitis now prevalent, in its early stage very much like diphtheria in its symptoms, but in such cases the patient recovers in from three days to a week. It is brought about perhaps by some condition of the air, or through the sewer openings in the streets. Now if these latter cases are notified as diphtheria to avoid the risk of penalty for non-compliance with the Act the machinery of the medical officer of health's office is set in operation and, once started, cannot be stopped. The notification is taken as justification, and an inspector is directly instructed to make a complete survey of the drains, apparatus, fittings, and water-supply. Notice of defect (if any, and there is generally something not up to date) is served, with an intimation of the penalties for not proceeding at once and completing within seven days. Take a house wherein this has been the only case of illness for years (and there are many such), and say that no defect can be found in the drain; but the apparatus is, although serviceable, not of the present approved type. Directly the owner commences to comply with his notice by the substitution of a more modern style the new regulations of the London County Council apply, and in every instance a reconstruction of the sanitary fittings is imperative. If this appears to bear harshly, how much more so where the disease has not been contracted in the house, but through the sewer ventilators, or where the medical attendant's diagnosis is that of diphtheria instead of tonsillitis, and the patient recovers within the period stipulated for completion under the sanitary notice? It is, in many cases, the unnecessary expenses which fall upon the owner that should be avoided, where possible, and my object is to ask whether it would be *infra dig.* for the medical officer of health to be called in to agree with the attendant medical man's diagnosis of all cases of disease engendered by foul smells before being notified?

I am, Sirs, yours obediently,

Charleville-road, W., Dec. 26th, 1895. C. STUART-BARKER.

*** We have pleasure in printing Mr. Stuart-Barker's letter. The medical officer of health cannot be placed in a position to sit in judgment upon the diagnosis of the general practitioner. Some more fitting way than this out of a practical difficulty must be found, but we are not unaware that excessive trouble is given and excessive expense imposed upon the householder occasionally.—ED. L.

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"PROSECUTION FOR SELLING DRUGS OVER THE PRESCRIBED STRENGTH."

WE regret that we were not aware, when commenting upon the cases of prosecution at Birmingham for selling drugs over the prescribed strength in our issue of Dec. 21st, 1895, that the offenders were not qualified chemists. The report which we read, and upon which we based our remarks, certainly did not convey this impression. We gladly make this correction; and, far from intending any injustice to qualified druggists and chemists—as both the *Chemist and Druggist* and the *British and Colonial Druggist* not unreasonably suggest—we thought it proper to add that "the record of offences of this sort on the part of *respectable* chemists and druggists is a very satisfactory one; theirs is a business which requires constant care, and no one better than themselves know it and realise it."

Pro Medico.—The answer entirely depends on the contract with the nurse, which we have not before us. The length of notice seems sufficient, and it would scarcely seem reasonable to deny the managers the right of dismissal if they conscientiously think a nurse unsuited for the place. Mere professional efficiency is not the only qualification of a nurse for working smoothly with those who employ her. The caprice or injustice would have to be very obvious to make a ground of action.

Medicus.—The question is essentially a legal one, but our correspondent seems to have a most valid case and ground of complaint. We are not aware of any privilege possessed by the chairman of a board of guardians to utter in the presence of reporters unfounded remarks calculated to injure an absent medical officer. The medical officer should demand an apology and withdrawal.

THE PATHOGENESIS OF CANCER: A CORRECTION.

To the Editors of THE LANCET.

SIRS,—In your abstract (THE LANCET, Dec. 21st, 1895) of my communication on this subject to the Manchester Medical Society there occurs a small, but important, misprint, which I shall feel obliged if you will rectify. I am represented by the "printer's devil" as having said that "the process by which cancers and other neoplasms arose might be regarded as a kind of abnormal generation." The error is in the last word of this sentence, which should be *gemmation*, not "generation." It is strange to see how unkindly the "printer's devil" takes to unfamiliar words and despitefully uses them.

I am, Sirs, yours truly,

Preston, Dec. 21st, 1895. W. ROGER WILLIAMS.

JOHN ABERNETHY HICKS.

To the Editors of THE LANCET.

SIRS,—On page 1657 of THE LANCET of Dec. 28th, 1895, I notice that, in alluding to the death of my father, John Abernethy Hicks, you mention that his family had practised medicine at Emsworth, Hants, and neighbourhood, for 150 years. This is perfectly correct, but I wish to take the liberty of drawing your attention to the mistake in spelling the name as "Wicks," whereas it ought to be "Hicks." Apologising for troubling you,—

I am, Sirs, yours faithfully,

JNO. ABERNETHY HICKS, M.R.C.S., L.R.C.P.

Bexhill-on-Sea, Dec. 29th, 1894.

THE CORONER AND THE INFLUENZA.

To the Editors of THE LANCET.

SIRS,—By this post I send you copies of the *East Anglian Daily Times* containing an account of proceedings of an inquest held by the borough coroner of Ipswich regarding an outbreak of diphtheria in that town. It seemed to me so irregular that a coroner should hold such an inquiry that I had the curiosity to attend the adjourned inquest, and, from remarks he then made, I got the impression that the coroner was not very sure of his ground. The cause of the child's death was undoubtedly diphtheria, and I believe such was certified by the medical attendant. Surely the proper person to conduct such an inquiry should have been a medical inspector of the Local Government Board?

I am, Sirs, yours faithfully,

JNO. W. COOK, M.D.,

Medical Officer of Health to the Tendring Rural

Colchester, Dec. 16th, 1895. District Council.

*** We had watched the proceedings of the inquest at Ipswich with some interest. The case is quite exceptional. The child was known to have died from diphtheria, and the only excuse for an inquest seems to have been either to review the diagnosis, which was utterly unnecessary, or to enter into an etiological investigation as to whether the disease had been brought about by faulty sanitary conditions owing to neglect of the town council. Inquiry by a coroner under either of these conditions seems to have been a very useless procedure; even if the jury had found owners of property or the sanitary authority guilty, the matter could not have been pressed further; and the mere holding of a coroner's inquest naturally prevented the proper form of inquiry, if any was needed, by the Medical Department of the Local Government Board.—Ed. L.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic 10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

WEDNESDAY.—LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—4.30 P.M. Annual General Meeting. Cases, Specimens, &c., by the President, Dr. Barclay Baron, Dr. J. W. Bond, Dr. Bronnor, Dr. Couper Cripps, Dr. William Hill, Dr. David Newman, Mr. C. A. Parker, Dr. Scanes Spicer, Dr. St. Clair Thomson, and Dr. Herbert Tilley. 8 P.M. Annual Dinner (Café Royal).

HUNTERIAN SOCIETY.—8.30 P.M. Dr. J. H. Sequeira: Chronic Pharyngeal Affections and their Relation to Diphtheria.—Dr. Fortescue Fox: Localised Rheumatoid Arthritis.—Mr. Percy Warner: Some Notes of a case of Typhlitis.

SOUTH-WEST LONDON MEDICAL SOCIETY (Windmill House, Clapham-common).—8.30 P.M. Mr. W. G. Dickinson: Professional Unionism. A Discussion will follow.

THURSDAY.—HARVEIAN SOCIETY.—Mr. Edmund Owen: Children's Spines—Healthy, Unhealthy, and Otherwise.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Mr. Fredk. Edge (Wolverhampton): Notes on a case of a Para-utero Vaginal Fibroid Tumour treated by Removal of the Appendages and Dissection out of the Growth.—Mr. Bowreman Jessett: The Difficulty of Diagnosing Early Carcinoma of the Body of the Uterus (with specimen).

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Great Northern Central Hospital, Holloway).—8.30 P.M. Specimens and Clinical Cases. Dr. Arthur Wilson: Case of Perforating Ulcer of the Stomach. Dr. C. H. Beevor: Case of Arsenical Neuritis. And other cases.

FRIDAY.—CLINICAL SOCIETY OF LONDON.—Dr. David Newman: Intermittent Hydro-Nephrosis and Transient Albuminuria in cases of Movable Kidney.—Dr. Lee Dickinson: Cases of Spontaneous Thrombosis of the Cerebral Veins and Sinuses in Chlorosis.—Dr. S. Ringer and Dr. A. G. Phear: A case of Addison's Disease, treated with Supra-Renal Extract (with an abstract of previously recorded cases).—Dr. Hale White: Two cases of Pneumo-Thorax in the course of Typhoid Fever, and both due to straining at stool.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

TUESDAY.—ROYAL INSTITUTION.—3 P.M. Professor John Gray McKendrick: Sound, Hearing, and Speech (experimentally illustrated). And on Thursday at the same hour.

During the week marked copies of the following newspapers have been received:—*Wellington Journal and Shrewsbury News, Shifnal, Oakengates, Ironbridge and Madeley Advertiser, Glasgow Record, Times of India, Pioneer Mail, Scotsman, Family Doctor, City Press, Sanitary Record, Macclesfield Chronicle, Carnarvon Herald, Westminster Gazette, Rochdale Observer, Morning Leader, East Anglian Daily Times, Cork Constitution, Manchester Guardian, Newcastle Chronicle, North Star, Birmingham Gazette, Sheffield Independent, Eastern Morning News, Aldershot Gazette, West Middlesex Standard, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Liverpool Daily Post, Builder, Bristol Mercury, Architect, Standard, Yorkshire Post, Local Government Journal, Leeds Mercury, Gazette and News (Blackpool), Blackpool Herald, Nottingham Express, Goole Times, Cornish Telegraph, Maidstone Journal, Bedford Advertiser, Local Government Chronicle, Eastbourne Gazette, Essex County Standard, Herald Standard (Melbourne), Australian Medical Gazette, Glasgow Baillie, Liverpool Courier, Hereford Times, Rangoon Times, North China Herald, West Kent Advertiser, Alnwick Gazette, The Cambrian (Swansea), The Lancashire Daily Post, Reading Mercury, Mining Journal, Morning, Surrey Advertiser, &c., &c.*

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Communications, Letters, &c., have been received from—

A.—Dr. J. Althaus, Lond.; Mr. D. Ainley, Halifax; Messrs. Armour and Co., Lond.; Messrs. T. and M. Armstrong, Lond.; Messrs. E. Austin and Sons, Clifton; Alpha, Lond.

B.—Dr. D. Bower, Bedford; Dr. S. Bernhein, Paris; Mr. G. Buxey, Southampton; Mr. A. E. Barker, Lond.; Mr. H. Browne, Amesbury; Mr. G. R. Butler, Lond.; Mr. E. J. Blake, Headford, Ireland; Mr. C. Birchall, Liverpool; Messrs. Blondeau et Cie., Lond.; Messrs. Burroughs, Wellcome, & Co., Lond.; Messrs. Burgoyne, Burbidges, and Co., Lond.; Brit. Gynæcol. Soc., Lond., Hon. Sec. of; B.,Tredegar.

C.—Dr. Cunningham, Lond.; Mr. W. H. B. Crockwell, Whalley Range; Mr. R. Cuffe, Woodhall Spa; Messrs. Crossley, Moir, and Co., Lond.; Messrs. Cooper and Co, Lond.; Messrs. J. and A. Churchill, Lond.; Cortland Wagon Co., Lond.; *Chemical News*, Lond.; Chester County Asylum, Clerk of.

D.—Mr. M.G. Daigleish, Newcastle-on-Tyne; Mr. E. T. Davies, Liverpool; Mr. T. H. Dickson, Lond.; Mr. E. Davies, Lond.; Messrs. W. Dawson and Sons, Lond.; Doncaster Gen. Infirmary, Hon. Sec. of; Daleth, Lond.

E.—Dr. G. A. Eustache, Patras, Greece; Messrs. Eason and Son., Dublin; East Suffolk and Ipswich Hosp., Sec. of.

F.—Mr. W. C. Finch, Salisbury; Mr. F. B. Fisher, Dorchester; Mr. H. Formby, Preston, Brighton.

G.—Dr. H. L. Gordon, Lond.; Prof. George Fleming, Combe Martin; Mr. O. F. Gerhardt, Lond.; Mr. A. J. P. Gipps, Plymouth; Mr. A. Goodman, Taunton; Gt. Yarmouth Hosp., Sec. of.

H.—Dr. G. Herschell, Lond.; Dr. W. S. Hedley, Brighton; Mr. J. Heywood, Manchester; Mr. J. R. Hammond, Deal; Mr. A. O. Haslewood, Buxton; Messrs. Haasenstein and Vogler, Geneva; Messrs. Hirschfield Bros., Lond.; Hastings Hosp., Sec. of; Home Hosp., Bournemouth; Harveian Soc., Lond., Hon. Sec. of; Hull Borough Asylum, Steward of; Hosp. for Women, Soho-sq., Sec. of.

J.—Dr. J. R. James, Pentre; Mr. J. J. Jackson, Garston; Mr. J. C. James, Glasgow; Mr. F. H. Jacob, Westbury; Mr. M. H. Judge, Lond.; Jeyes' Sanitary Compounds Co., Lond.

K.—Mr. R. Kimpton, London; Messrs. Krohne and Sesemann.

L.—Dr. J. F. Little, Lond.; Dr. S. W. Latta, Trenton, N. Jersey; Mr. E. A. Lightburn, Lond.; Mr. C. S. Langley, Thurlow; Lower Phillimore-place, No. 31.

M.—Dr. H. W. G. Macleod, Lond.; Dr. R. L. Meade-King, Taunton; Mr. W. S. Mayne, Ivybridge; Mr. J. M. Mangan, Ennis; Mr. H. C. McBryan, Box; Mr. E. A. Millar, Lond.; Messrs. G. Mason and Co., Lond.; Messrs. Maple and Co., Lond.; Messrs. Manlove, Alliot, and Co., Nottingham; Messrs. J. Maythorn and Son, Biggleswade; Moss Litter and Peat Industries, Lond.; Missouri Pacific Railway Co., Manager of; Manchester Royal Infirmary, Sec. of; Medical Society of Victoria, Melbourne, Sec. of.

N.—Mr. Newman, Barmouth; Nottingham Children's Hospital, Sec. of; National Provident Institution, Lond., Sec. of.

O.—Messrs. Orridge and Co., Lond.; Messrs. Oliver and Boyd, Edinburgh; Orleans Parish Medical Society, New Orleans.

P.—Dr. A Pechl, St. Petersburg; Lieut.-General B. H. Pottinger, Teignmouth; Mr. Y. J. Pentland, Edinburgh; Mr. G. Pernet, Lond.; Mr. Norman Porritt, Huddersfield; Messrs. Parke, Davis, and Co., Lond.; Messrs. Pawson and Brarlsford, Sheffield; Prestwich County Asylum, Supt. of; Prison Commission of Scotland, Edinburgh, Sec. of.

R.—Dr. J. Robertson, Lond.; Col. E. Rogers, Lond.; Señores Romo y Füssel, Madrid; Messrs. Roger and Chernoviz, Paris; Messrs. J. Richardson and Co., Leicester; Rose Manufacturing Co., Philadelphia, U. S. A.; Roy. Hants County Hosp., Winchester, Sec. of.

S.—Dr. W. H. Sutherland, Lond.; Dr. W. H. Spencer, Southsea; Dr. H. Snow, Lond.; Surg-Capt. H. A. Smith, Canterbury; Mr. Salt, Birmingham; Mr. W. B. Saunders, Philadelphia; Mr. G. J Smith, Liverpool; Mr. R. E. Squibbs, Chigwell Row; Mr. J. C. Smith, Chelmsford; Messrs. G. Street and Co., Lond.; Sanitas Co., Lond.; Sheffield Children's Hosp., Sec. of; St. John Ambulance Association, Sec. of.

T.—Torquay Med. Soc., Hon. Sec. of; Tullus, Lond.; Tasma, Lond.; Typhoid, Lond.

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ABSTRACT OF AN

Address

ON THE

ISOLATION OF FEVER PATIENTS.

Delivered before the Combined Sections of Medicine and Public Health of the Royal Academy of Medicine of Ireland on Nov. 15th, 1895,

BY SIR CHARLES A. CAMERON, F.R.C.S. IREL.,

PROFESSOR OF HYGIENE, ROYAL COLLEGE OF SURGEONS IN IRELAND; CHIEF MEDICAL OFFICER OF HEALTH, DUBLIN.

IT is admitted that some infective diseases, such as small-pox, scarlet fever, and typhus fever, are propagated through the medium of infected air. The *materies morbi* of these maladies consist of solid bodies, which are capable of being blown about in the atmosphere; and if persons reside close to the place where a small-pox or typhus fever patient is located the air itself may waft the poison of the disease directly from the sick to the sound. The combined efforts of medical and non-medical men in the departments of preventive medicine and public hygiene have largely reduced the death-rate on both sides of the Channel, and, as might be expected, these efforts have produced a greater effect as regards zymotic diseases than in the case of other maladies. In the period 1876-80 the zymotic death-rate in the large English and Welsh towns was 3·8 per 1000 persons living, whilst the death-rate from all other causes was 21 per 1000. In the following decade the zymotic death-rate declined to 3·1 per 1000, being 18·4 per cent. less than in the previous five years, whilst the death-rate from all other causes fell to 19·85, or 5·5 per cent. less than in the previous five years. In the four years ended in 1894 the zymotic death-rate was 2·66, and the death-rate from all other causes 18·31, showing a decline of 14·2 per cent. of the former and 7·7 per cent. of the latter as compared with the previous ten years. In Dublin the greater decrease in the zymotic death-rate as compared with the decrease in the general mortality is still more striking. In the ten years ended in 1890 the zymotic death-rate was 44·05 per cent. less than in the previous ten years, whilst the decrease in the number of deaths from all causes was only 15·59 per cent. In the five years ended in 1880 the zymotic death-rate was 5·1 per 1000 persons living, whilst the death-rate from all other causes was 27·5. In the four years ended in 1894 the zymotic death-rate was 2·55, or 50 per cent. less than in the five years 1876-80, whilst the death-rate from all other causes was 23·37, or 15 per cent. less.

The English medical officers of health have rendered great service to the public by their persistent efforts to secure properly isolated hospitals exclusively for infectious cases. In 1891 Dr. Thorne Thorne, now medical officer of the English Local Government Board, called attention to the remarkable increase in the provision by sanitary authorities of hospitals for fever patients. From 1879 to 1891 £450,000 had been expended in the erection of these hospitals, and it was estimated that there were at least 400 of them in existence. The corporation of Belfast have just resolved to provide a hospital of the kind outside their city at an expense of £70,000. Dublin has a reputation as a great seat of medical education, and its physicians have done much to enlarge the boundaries of the domain of medicine; but I do not think that we can boast of any superiority in our hospital system. It must be admitted that the number of hospitals in relation to population is far greater than in probably any city in the world, but the great defect is the treatment of the highly contagious fevers in the general hospitals, for in addition to two special fever hospitals there are fever departments in six general hospitals and one private hospital. I cannot understand how anyone claiming to be a sanitarian can approve of the treatment of the highly contagious fevers at nine different points in a comparatively small city such as Dublin, and I trust that the day will come when our general hospitals will, like those on the other side of the Channel, refuse to admit cases of small-pox, scarlet fever, typhus fever, and perhaps measles. Cork-street Hospital is the best place we have in Dublin for fever cases, as it receives no other kind and has still some open space surrounding it. We have in the Hardwicke Hospital a second fever hospital. It is quite unsuited for the reception of small-pox cases, and even as a hospital for scarlet fever and typhus fever it cannot for a moment be compared with the vast majority of similar hospitals in England and Scotland. I am aware that many physicians believe that there is sufficient reason for having fever wards in general hospitals, but I challenge them to cite a single writer on hospital management, or on public hygiene, in support of their belief. To a certain extent the authorities of the Dublin general hospitals acknowledge the desirability of isolating fever patients, as some of them have removed their fever wards to detached buildings, which are, however, too close to the main buildings. They are under the control of the general hospital administration; the same physicians and students who attend the wards in which non-infectious cases are treated visit the fever wards, and it is not to be expected that the nurses in the detached building keep apart from those who attend in the main building. In the ideal hospital for infectious maladies the physician's clothes are changed before he leaves it; so, also, are those of the pupils, officers, nurses, and attendants. They wash the portions of their bodies exposed to the infected air. The visitor is covered with an ample cloak and is told not to enter a public conveyance immediately after leaving the hospital. The goods for the hospital are received at the porter's lodge. The hospital is surrounded by spacious grounds and is not nearer than 150ft. from the public road. The dejecta of the patients are destroyed by fire or sterilised by high-pressure steam. Is the fever department of a Dublin hospital placed under these conditions? The recent epidemic of small-pox showed up our weakness as regards isolation hospitals. Cork-street and the Hardwicke Hospitals proved insufficient to accommodate the patients, and it was found necessary to remove the less acute cases to huts situated within the precincts of the workhouse. On Jan. 7th, 1895, there were 122 small-pox cases in the Hardwicke Hospital, 153 in Cork-street Hospital, and 61 in the workhouse sheds—total 324. Cork-street Hospital and the Hardwicke Hospital are quite close to public thoroughfares. What is the opinion of eminent authorities as regards the situation of a small-pox hospital? Dr. Priestley, medical officer of health of Leicester, demonstrated in 1893 that the Leicester Small-pox Hospital, though 620 ft. distant from the nearest house, spread the disease, and he recommended that the hospital should be removed "as far away as possible from the town and its inhabitants." Dr. C. E. Matthews, superintendent of the small-pox hospital at Gore Farm, Dartford, considers that 1000 ft. are the limits of the aerial convection of small-pox, but this estimate has been questioned. Mr. Stafford, medical inspector of the Irish Local Government Board, has published in the last annual report of the Board very striking English statistics, showing that small-pox hospitals spread the disease unless they are thoroughly isolated and well managed. Mr. Wynter Blyth, in his work on "Public Health," quotes with approval the summary made by Dr. Thorne Thorne of the opinions of eminent physicians and epidemiologists, such as Dr. Bristowe, as to the means of preventing contagion. He says: "The first principle to be laid down is the absolute necessity of buildings set apart for small-pox, scarlet and other infectious fevers. A sanitary authority not providing facilities for isolation has failed to fulfil one of the great purposes for which it was instituted. The second principle is that the construction of such hospitals is best carried out with deliberation in non-epidemic times, experience having demonstrated that those which have been hastily run up to meet sudden emergency have provided accommodation of a most indifferent kind, have failed to meet the permanent want of a district, and the cost has been, in relation to usefulness, large. The third principle is that small-pox hospitals should be at least a mile from inhabited dwellings." Dr. John W. Mason, medical officer of health of Hull and physician to the local fever hospital, one of the ablest sanitarians in England, says that the number of patients in a fever hospital should not exceed twenty per acre. What general hospital in Dublin gives an acre to twenty of its fever patients? He states that each zymotic disease should be treated in a building aerially distinct from every other.

It has been said that the establishment of special hospitals for fever would greatly interfere with medical education in Dublin, and it seems to be taken for granted that the scheme

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for establishing isolation hospitals contemplates putting them many miles outside the city. No such intention was in the minds of the promoters of the scheme. The hospitals were to be outside the city, but close to it, and with ample space surrounding them. To my mind the present hospital system in Dublin is unfavourable to the study of fever. The cases are treated in nine hospitals, and, with the exception of the special hospitals, there cannot be very many cases in any one of the hospitals. The proper thing would be for the pupil, in his fifth year, to devote himself to the study of fever in a large special hospital such as Cork-street Hospital, containing, perhaps, ten times the number of patients treated in the general hospital he attends. It seems to me highly desirable that, whilst occupied in the study of the contagious fevers, the pupil should keep apart from a general hospital.

THE FATE OF MICRO-ORGANISMS IN INSPIRED AIR.[1]

BY ST. CLAIR THOMSON, M.D. LOND., M.R.C.P. LOND.,
AND
R. T. HEWLETT, M.D. LOND., M.R.C.P. LOND.

(From the Bacteriological Department of the British Institute of Preventive Medicine.)

IN a communication we recently had the honour of reading before the Royal Medical and Chirurgical Society[2] on "Micro-organisms in the Healthy Nose" we calculated that 1500 organisms are inhaled into the nose every hour. This was the lowest estimate, and we quoted experiments to show that it must be a common event—at least, in our average London atmosphere—for 14,000 organisms to pass into the nasal cavities during one hour's tranquil respiration. The fate of the thousands of microbes which thus enter the human body is a question of great pathological interest, and this increases when it is remembered that the expired air is practically quite free from germs. A study of the subject should therefore be instructive in showing how the human economy deals with the hosts of organisms which are continually invading it through the air we are always breathing. The fact that inspired organisms do not, as a rule, reach the air cells was first pointed out by Lister. He observed that "in simple fracture of the ribs, if the lung be punctured by a fragment driven inwards upon it, the blood effused into the pleural cavity from the wound in the highly vascular organ, though freely mixed with air which enters the pleura through the same orifice, undergoes no decomposition, as is clearly implied by the absence of any symptoms of pleurisy in such cases. The air is sometimes pumped into the pleural cavity in such abundance that, making its way through the wound in the pleura costalis, it inflates the cellular tissue of the whole body; yet this occasions no alarm to the surgeon, unless the openings in the parietal pleura become insufficient to permit free egress for the air, which then becomes pent up in the serous cavity and, distending it far beyond its natural dimensions, encroaches so seriously on the other lung as to embarrass or even abolish its functions." In a post-mortem examination on such a case ten days after the receipt of the injury Lister found the enormously distended pleura free from effusion and perfectly smooth and healthy. This observation was explained by the atmosphere being filtered of germs by the air passages, "one of whose functions it is to arrest inhaled particles of dust and prevent them from entering the air cells.[3] Later Tyndall showed by his experiments with a ray of light in a dark chamber that expired air—or, more exactly, the last portion of an expiration—is optically pure—i.e., that respiration has freed it from the particles of suspended matter with which it is laden.[4] In 1882 Gunning of Amsterdam showed that expired air contains no microbes capable of provoking putrefaction in sterile liquids through which it has been passed,[5] and in 1887 Strauss and Dubreuil independently arrived at a similar conclusion.[6] They spent thirty minutes in expiring from 200 to 300 litres of air into tubes, in the bottom of which was a layer of sterilised alkaline bouillon. The greater number of these tubes remained sterile; a few showed growths of microbes and moulds, doubtless due to accidents of manipulation. Grancher has made many experiments with the expired air of phthisical patients and has never found in it the tubercle bacillus or its spores. Charrin, Karth, Cadéac, and Mallet have made analogous experiments with negative results. In a further series of confirmatory experiments on this subject Strauss[7] showed that on an average of 809 bacteria and spores inhaled only one single germ is expired. Now, as the air is practically freed from all germs by the respiratory act, we have to consider where and how the thousands of organisms are arrested in the air passages. The experiments of Hildebrandt[8] would tend to prove that the air is entirely freed from all germs before reaching the trachea. In controlling this we have examined the mucus from the trachea of all animals recently killed in the laboratory, neglecting, of course, any that had suffered from affections of the respiratory tract. The opportunities are too few to be recorded numerically, but up to the present we have always found this mucus to be quite sterile. The above shows that the fate of micro-organisms must be sought for principally in the upper air-passages. We therefore commenced with the nasal fossæ, and our experiments are published in the paper already referred to.[9] The result we arrived at was that "the mucous membrane of the healthy nose only exceptionally shows any micro-organisms whatsoever. The interior of the great majority of normal nasal cavities is perfectly aseptic. On the other hand, the vestibules of the nares, the vibrissæ lining them, and all crusts formed there are generally swarming with bacteria." These two facts seem to demonstrate that the vibrissæ act as a filter and that a large number of microbes meet their fate in the moist meshes of the hair which fringes the vestibule. Not only does this arrangement arrest the ingress of germs, but others which have penetrated into the nose are rapidly ejected by the action of the ciliated epithelium.

To obtain an idea of how rapid a movement might be imparted by ciliary action we performed the following experiment. A frog was pithed and the lower jaw cut away, exposing the dorsal wall of the pharynx, which in this animal is covered with ciliated epithelium. On this a particle of wet cork was placed, and it was most striking to observe the rapidity with which it was conveyed along to the œsophagus. We found that it travelled at the rate of 25 mm. (one inch) per minute. In the normal frog the rate is probably more rapid, as ciliated epithelium thus exposed is soon damaged. It is difficult to give an analogous demonstration in the human subject, as a foreign body of any tangible size, even powdered magnesia, is apt to act as an irritant and produce a free secretion of watery mucus, which rapidly washes it down into the vibrissæ. With regard to the micro-organisms which may be deposited in the Schneiderian membrane, we carried out the following series of experiments on four different occasions. Cultivations were made from the vibrissæ and from the mucous lining of the nose of one of us who acted as the subject. The cultures from the vibrissæ invariably showed yellow and white colonies in abundance, while those from the mucous membrane were almost invariably quite sterile. This served to show that there was no red growth of the Bacillus prodigiosus, the organism we decided to experiment with. A pure culture of this organism had been prepared, and a sterilised loopful was deposited on a distinct point on the septum, well within the vestibule. Cultivations made from the spot immediately, or within five minutes, showed an abundant confluent growth. When taken after fifteen minutes' interval the cultures on agar showed already a diminished growth. After thirty minutes the growth had markedly decreased; at the end of one hour it had diminished by 75 per cent. and consisted of a considerable number of discrete colonies; frequently no trace of the loopful of the bacillus prodigiosus could be

[1] A paper read in the Section of Pathology at the annual meeting of the British Medical Association held in London in August, 1895.
[2] See Transactions, vol. lxxviii., 1895.
[3] Brit. Med. Jour., July 18th, 1868.
[4] Philosophical Transactions of the Royal Society, vol. clxvi., Part 1, 1876, p. 27.
[5] "Werden mit der Expirationsluft Bacterien aus dem Körper entführt?"—Klinische Monatsblätter für Augenheilkunde, 1882.
[6] Sur l'Absence de Microbes dans l'Air expiré: Académie des Sciences, Séance du 5 Décembre, and La Semaine Médicale, 1887, No. 49, p. 493.
[7] Annales de l'Institut Pasteur, 1888, No. 4.
[8] Experimentelle Untersuchungen über das Eindringen pathogener Mikroorganismen von den Luftwegen und der Lunge aus.—Beiträge zur pathologischen Anatomie und Physiologie, Ziegler und Nauwerck, Band ii., 1888, p. 421.
[9] Micro-organisms in the Healthy Nose, &c.

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detected after eighty minutes from the time it had been deposited, and after two hours had elapsed in no case did we get any growth whatever when cultivations were made from the spot inoculated. We would note that this observation had reference to a loopful of pure culture, large enough to be detected as a distinct red point on the mucous membrane, and therefore containing myriads of organisms. What became of them all we are at present not prepared to say. During the two to three hours that the nose was kept under observation cultivations were continually being made from around the spot, but never once did they show any B. prodigiosus. We carefully examined the opposite wall of the nasal cavity and only once found a red growth amongst the vibrissæ. Wurtz and Lermoyez[10] hold that the nasal mucus itself exerts a bactericidal influence on all, or nearly all, pathogenic agents. So far we have been unable to corroborate their researches; but this may be due to our want of success in obtaining an appreciable quantity of sterile mucus. To collect this secretion it is necessary to introduce a sterilised cotton-wool plug into the nasal cavity and leave it there for some time. We have found it practically impossible to do this without contaminating the tampon with the vibrissæ at the orifice. Now, as we have shown, these are never free from germs, and the nasal mucus with which they come in contact was in no case sufficiently germicidal to prevent their free growth when sown on gelatin plates. In some cases we left the nasal mucus in a sterilised glass for from one to sixteen hours at room temperature, during which period it had abundant time to exert its destructive action on the germs which had adhered to it when passing out along the vibrissæ. Nevertheless, there was always a free growth of yellow and white colonies when gelatin plate cultivations were made from it. Wurtz and Lermoyez have only published their researches on the action of nasal mucus upon the anthrax bacillus; but still they hold that the same germicidal effect is exerted in different degrees of intensity on other microbes.

Although we have been unable to obtain any proof of bactericidal qualities in nasal mucus, we have satisfied ourselves that it is possessed of the important property of exerting an inhibitory action on the growth of micro-organisms. This is shown by what we have said above and by the following experiment. A loopful of a fluid culture of the B. prodigiosus was mixed with a small quantity of nasal mucus. From this gelatin plate cultivations were prepared, some immediately and others at various intervals up to thirty-six hours; on each occasion the same quantity of the mixture was used for inoculating the plates. The number of colonies of the B. prodigiosus which developed in various plates was practically identical, showing that no increase in the number of organisms had taken place, and also that no germicidal action had been exerted during even many hours' exposure to the mucus.

We have made a great number and variety of experiments in order to test the bacterial condition of the air before and after passing through the nose. For a long time the conflicting and contradictory results showed us that there was some error in our methods. These were based on the plan adopted by Bloch for testing the warming and moistening influence of the nose. Finally, and only lately, we succeeded in approximating closely to the normal condition of affairs by designing the following method. A sterilised glass cannula, shaped like the tube of a post-nasal syringe, was introduced into the post-nasal space of one of us. The end of this glass tubing, projecting through the mouth, was directly connected with a glass tube passing down through a rubber cork to the bottom of a large-sized test tube. Fifteen c.c. of liquefied sterile nutrient gelatin had been poured into this tube, the bottom of which was narrowed so that quite an inch of the glass tubing passed below the surface of the liquid. Another piece of glass tubing passed up through the rubber cork and was connected with a mouthpiece, through which inspirations were made regularly by the other observer so as to imitate normal breathing. In this way the air passed freely along both nasal cavities of one observer, entered the glass tubing, and bubbled through the layer of gelatin. Ten respirations were thus taken and an Esmarch roll cultivation was made. In an analogous amount of laboratory air we found twenty-nine moulds and nine bacterial colonies; whereas after passing through the nose the air contained only two moulds and no bacteria. On another occasion we found in nine litres of laboratory air six moulds and four bacterial colonies, while the same quantity of air after passing through the nose exhibited one mould and no bacteria. We see, therefore, that practically all, or nearly all, the micro-organisms of the air are arrested before reaching the naso-pharynx; probably a majority are stopped by the vibrissæ at the very entrance of the nose and those which do penetrate as far as the mucous membrane are rapidly eliminated. The nasal mucus is an unsuitable soil for the growth of organisms, and hence is an important factor in that it does not further their multiplication. The removal of the intruding organisms from the Schneiderian membrane is probably in the main due to the action of the ciliated epithelium, assisted by the trickling of mucus and the lachrymal secretion. Phagocytosis may share in the work of removal, though to a small extent, for we have only once found phagocytic cells containing bacteria.

[10] Le Pouvoir Bactéricide du Mucus Nasal: Annales des Maladies de l'Oreille &c., 1893.

GLEANINGS FROM SURGICAL PRACTICE.

By THOMAS BRYANT, M.Ch., F.R.C.S. Eng. & Irel.,
CONSULTING SURGEON TO GUY'S HOSPITAL; PAST PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, ETC.

IV.[1]—The Treatment of Abdominal Injuries without External Wounds.

It must be confessed that the treatment of intra-abdominal injuries without external wounds at the present period is not quite satisfactory, since it is as uncertain in its methods as is the diagnosis of the nature of the injury itself. With a clear diagnosis of the nature of any case, whether abdominal or otherwise, a surgeon has no real difficulty in laying down the lines upon which his treatment should be based. With an uncertain diagnosis all active treatment is withheld as being dangerous or unnecessary, and consequently time, which is always valuable, is liable to be lost. In intra-abdominal injuries the surgeon, therefore, too often stands beside his patient with an undecided mind. He may suspect, more or less shrewdly, in any individual case that a visceral injury has been sustained; he may be alive to the fact that if this suspicion be true it is by surgical interference, and by it alone, that life is to be saved; he may also be equally sure that if success is to be secured his surgical measures must be promptly applied; and yet he hesitates, and he does so because he knows that, however severe may be the primary symptoms, there is a possibility of no such visceral injury having been brought about, or that if present it is of such a serious nature as to be beyond human skill. If the force which has produced the injury has been of such a character as to have probably produced some crush of a solid viscus, or rupture of a hollow one, the desire to give relief by surgical means is naturally stimulated, and that desire to act is only restrained by the knowledge that, however probable the character of the injury may be, its exact nature is not to be diagnosed with certainty by any symptoms which may have immediately followed the accident by which it was caused, whether the symptoms happened to be of a severe or of a trivial character. And if the force which has produced the injury appears to have been somewhat insignificant, and consequently not likely to have caused any serious intra-abdominal mischief, such mischief is nevertheless neither improbable nor impossible when grave general symptoms immediately followed its receipt. Indeed, it is always to be recognised that the presence of severe general symptoms, such as collapse and vomiting, as immediate consequences of an abdominal injury, are consistent both with the presence and absence of grave mischief; and also that the mildness or absence of these general symptoms is quite compatible with serious and fatal complications; all treatment of abdominal injuries must of necessity be therefore careful, watchful, and expectant.

The patient is always to be gently placed in bed and all roughness in removing his clothes and moving his body carefully guarded against. His legs should be raised to a slightly flexed position by means of a pillow put beneath the knees, and his shoulders should also be elevated above the level of

[1] Nos. I., II., and III. were published in THE LANCET of Nov. 2nd and 9th, and Dec. 7th, 1895, respectively.

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the buttocks, the abdominal muscles in this position being relaxed. All external indications of injury should likewise be noticed. The body should be made warm by blankets, and hot bottles applied to the feet; but unless the collapse threatens to be fatal it should be disregarded, for if a solid or other viscus has been crushed the collapse has a beneficial influence in helping the coagulation of the blood in the ruptured vessels and so preventing hæmorrhage and thus warding off death. When death is threatened by the collapse a stimulant should be used, but not by the mouth. A subcutaneous injection of a drachm of ether or brandy is the most expeditious method of its administration, or, when this is inapplicable, a tablespoonful of brandy thrown into the rectum diluted with the same quantity of warm milk, beef-tea or water is nearly as good. When vomiting takes place the nature of the material brought up should always be carefully inspected; if mixed with blood, which has not been swallowed, a symptom of significance has been given to the surgeon, which he must keep in mind. The condition of the bladder should, under all circumstances, have a watchful care, and for diagnostic purposes a soft rubber catheter should be passed at an early period of the case; and if urine be drawn off, and it is natural in character, there is good reason to hope that neither the bladder nor the kidneys have been injured; although a second or third observation of the urine is necessary before a positive opinion as to the absence of injury to the kidney can be rightly formed, since the urine first drawn off may have been what had been secreted before the receipt of the accident, and blood from the injured kidney may not have had time or space to travel down the ureter.

With respect to pain, too much attention must not be paid to it in the early hours of the case, for it can only be assuaged by opium in one of its forms, and this drug tends seriously to mask symptoms. Under these circumstances the good it may do is neutralised by the harm associated with it by interfering with the formation of a diagnosis upon which possibly the life of the patient may hang. When, however, pain is severe and of a killing tendency—for pain does kill—a small subcutaneous injection of morphia may be used, or a morphia suppository or some laudanum may be introduced into the rectum with a nutrient enema; for it should always be understood that in no case of abdominal injury should food or fluid be introduced into the stomach during the period of watching for symptoms with diagnostic intentions. Where it is evident that nourishment is called for, such should be given by the rectum in the form of four- or five-ounce enemata of warm beef-tea or milk and egg, into which a stimulant or sedative can be poured as occasion may require. To give ice to the patient to suck is an injurious practice, although the patient's mouth may frequently be sponged out with soda-water or water, and the lips kept moist. In the way just described the first few hours after the receipt of the injury should be seriously spent, the object of the surgeon being to watch and note symptoms as indications for either active or passive treatment. Should collapse fail to pass away or be intensified, it is more than probable that serious hæmorrhage has taken place from the crushing of one of the more solid viscera, such as the liver or spleen, which must soon end in death. Should vomiting and pain be intensified, the collapse will probably diminish, and the suspicion may be rightly raised that some portion of the intestinal canal has been injured, if not ruptured, and if blood be mixed with the vomit this suspicion should be strengthened; under these circumstances the thought of operative interference should at once come to the front.

Should the general symptoms which have been named gradually diminish in intensity, and no fresh ones appear, the hope that no serious mishap has taken place in any of the intra-abdominal organs may reasonably be entertained and the treatment of the case be laid down upon such a basis. It must, however, still be directed on most cautious principles. Rest in the horizontal position should be carefully maintained and all movements restrained. Rectal alimentation should be kept up for several days and the stomach be left alone; nothing, indeed, should be introduced into it until the surgeon is fairly satisfied that it has not been injured, and that the bowel below will not be hurt by peristaltic movements. The first food introduced may be a thin animal broth, but not milk, since the former can be completely absorbed, and the latter, so far as the intestine is concerned, should be regarded as a solid diet. Spoonfuls of water may at this time also be given during the hours of testing and watching. If the bowels have not acted, and indications are present, suggesting that an action is wanted, a glycerine enema, or one of half a pint or so of oil and gruel, may be a help. Aperient medicine must not be given, for the muscular action of straining to help a stool is very apt to be detrimental. In several of the cases I have recorded it was, indeed, fatal. In the cases which tend towards recovery one-grain doses of opium may be given to an adult every six or eight hours, for this drug not only relieves pain, but assists, by checking peristalsis, in maintaining rest to the injured peritoneum and viscera, and helps materially to arrest inflammatory action. Indeed, in all cases of abdominal injury in which peritonitis appears and operative measures seem to be inapplicable or have been rejected, opium should be given, for, although in one sense it does harm by checking repair, in another sense, by helping to maintain rest of the constantly moving and possibly injured intestines, it assists all reparative processes and at the same time relieves pain. Opium, however, in any of its forms should be given with caution and the smallest dose of the drug administered that will fulfil the objects sought.

In three out of every four cases of abdominal injury which occur in practice the treatment I have laid down is applicable; but in no case, however trivial it may appear, can it be said with any safety that convalescence is established under fourteen or twenty-one days; in most cases an extra week of cautious treatment should be enforced. When symptoms of peritonitis appear soon after the injury or at a later period extra precautions should be insisted on. The four following cases of recovery after abdominal injury will help to illustrate the principles of treatment which I have described and are in themselves interesting. In the first two cases I believe the stomach had been injured—possibly its mucous coat had been torn and separated; in the third case I believe the jejunum had been bruised, but not torn, or there would probably have been some blood mixed with the vomit; and in the fourth case the colon was the probable seat of injury.

CASE 35.—*Injury to the stomach; recovery.*—A girl aged fifteen years, having been knocked down by a two-horse van and injured by the two side-wheels of the van passing over her abdomen, was admitted into Guy's Hospital in May, 1887, in a collapsed and almost pulseless condition. Her respiration was chiefly thoracic, and the left rectus abdominis muscle was rigid. As the collapse passed off she vomited and brought up blood mixed with the vomit. For sixteen hours the vomiting was persistent, and the vomit always contained blood; it then ceased, and in two months the girl left the hospital convalescent. She was kept in bed, and fed for about two weeks by nutrient enemata and suppositories, and subsequently by milk in small quantities and beef-tea; solids were not given for some weeks.

CASE 36. *Injury to the stomach; recovery.*—A boy aged nine years was brought in 1884 to Guy's Hospital after having been run over by the wheel of an empty butcher's van before he had breakfasted. He tried to stand after the accident, but fell, and was carried to the hospital. On his way he vomited much blood, as proved by the condition of his clothes. There were no indications of external mischief. His urine passed naturally and was healthy. As the collapse passed off he several times vomited dark coffee-ground fluid which clearly contained blood. He was fed by nutrient enemata and suppositories, and given a little opium to relieve pain, under which treatment he steadily convalesced.

CASE 37. *Injury to the abdomen from a diffused force; probably bruising of the small intestine high up; recovery.*—A girl aged five years, after the hind wheel of an empty van had passed over her back and the lower part of her thorax, was admitted into Guy's Hospital under my care in 1886. She was much collapsed on admission, and there was external evidence of injury on her loins. She was said to have vomited directly after the accident, but not blood, and for five days after her admission the vomiting continued, but only some time after food, this fact being suggestive that it was the upper part of the jejunum which had been injured, probably by bruising. A good recovery took place.

CASE 38. *Contusion of the abdomen; probably injury of the colon; hæmorrhage from the bowel for fifteen days; recovery.*—A man aged thirty-nine years was admitted into Guy's Hospital under my care on March 12th, 1878. Five days previously, when climbing over a fence in the dark, he had fallen down an embankment twenty-five feet high into an earth cutting. He was stunned for a time by

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the fall, and when he recovered his senses he felt a pain in his abdomen as well as in his right wrist and shoulder. He got up and walked home, a distance of nearly a mile, and went to bed, taking a purge before doing so. Twelve hours later he had a motion, when he passed a quantity of dark, not red, blood. He went on with his aperient medicine for five days, every day passing blood, but in diminishing quantities. He also had abdominal pain. On his admission a soft swelling was found to be present over the sacrum, which extended upwards towards the last right rib and outwards over the great trochanter; there were also others over the tibia and wrist. These were all clearly blood swellings. The abdomen was swollen and very tender. There were no indications of hæmorrhoids. When his bowels acted blood was still found to be mixed with his fæces. He was much blanched and feeble from loss of blood. He was put upon milk diet and kept in bed, and in about fifteen days after his admission all blood had disappeared from his motions. The abdominal pain ceased, and he was soon able to leave the hospital.

At Guy's Hospital, during eight consecutive years terminating twelve years ago, 71 cases of abdominal injuries were admitted. In 45 cases, or in about two-thirds of the whole number, beyond a passing collapse of variable degrees of severity and some tenderness over the injured part, no indications of any internal mischief showed themselves. In 10 cases, or in one-seventh of the whole number of cases, symptoms of peritonitis followed the accident, as evidenced by extensive tenderness over the injured part, which was increased by movement; thoracic respiration, resulting from the indisposition of the abdominal muscles to act and the pain caused during that action by pressure on the inflamed peritoneum; nausea; and in some cases vomiting. In these cases it is fair to presume that some internal injury had been sustained which was reparable. In 17 cases, or in about one-fourth of the whole number of cases, rupture of a viscus took place, which was followed by death. This record is not, however, satisfactory to the modern surgeon, who, with his improved methods and precautions, believes—and, I maintain, believes rightly—that better results are to be achieved. He asks himself therefore (1) in which instances surgical interference is likely to prove beneficial; (2) under what circumstances is he justified in interfering; and (3) what are the best means to enable him to carry out his views.

1. To answer the first question: In which case is surgical interference likely to prove beneficial? the surgeon must go to the post-mortem records of a hospital for the material to yield him an answer; and when he finds these cases, such as I have found and recorded in these papers, in which a rupture of one loop, or of more loops, of intestine was the result of injury and the cause of death, he rightly thinks that if this form of injury had been recognised during life and dealt with boldly and at once on its receipt a fair proportion of these fatal cases would have been added to the list of successful cases which modern surgeons by recent methods have already been able to record. He, moreover, does not despair of achieving some success where he finds rupture of such a solid viscus as the liver, spleen, or kidneys—for modern experience justifies the hope. Death also from ruptured veins, whether mesenteric or otherwise, he knows is not beyond his reach.

2. The second question consequently at once requires an answer: Under what circumstances is the surgeon justified in making an exploratory incision into the abdominal cavity for diagnostic and remedial purposes? And to the consideration of this difficult question I now pass. I have already dwelt upon the general symptoms of intra-abdominal injuries, and pointed out how, after the application of a feeble force, such as is not likely to have produced mischief, severe general symptoms may follow; and also how, after the application of a potent force, the general symptoms following the injury may be so slight as to induce the surgeon to believe that no serious intra-abdominal injury can have taken place. To support these truths I have also recorded examples in which patients have walked into hospital after the receipt of a fatal injury, and would have walked out again had they been allowed, when beneath their abdominal parietes a fatal rupture of a solid or hollow viscus had been sustained. I have likewise pointed out, and supported the view by the experience of Guy's Hospital, that two-thirds of all cases of abominal injury tend towards recovery, and that in those the primary symptoms which may have immediately followed the accident, however grave or trivial they may have been, sooner or later passed away, and the cases went on to convalescence, unless the injury to a viscus or to the peritoneum had been of such a nature as to excite some local or general symptoms of peritonitis within a day or so of its occurrence. When, however, in any individual case any one of the general symptoms, and particularly that of collapse, persists or becomes more marked, or when for a time the symptoms seem to have ameliorated and in a few hours again become grave, the conclusion that serious intra-abdominal injury has been sustained is not only reasonable but right, and more particularly when the force which is supposed to have brought about the injury was of such a nature as to have been likely to have caused the mischief. Under these circumstances it is also probable that a solid viscus has been lacerated. If, also, under like circumstances, vomiting persists, or, having left, returns and is obstinate, serious trouble is suggested; if, also, blood appears in the renewed vomit and was absent in the primary, and its presence continues, rupture of the small intestine seems probable, and the rupture is probably jejunal.

Rupture of the liver or spleen, as a general rule, kills by hæmorrhage, and when the laceration is severe and the hæmorrhage is copious the patient rarely recovers from the collapse which immediately follows the accident, or if he rallies for a few minutes or but a little it is only to relapse into a deeper collapse which ends in death. Under these circumstances the surgeon has no opportunity to test his powers, and no justification for interference. When the rupture is limited in extent, and the shock of the accident or the force which produced the rupture is of a crushing nature, hæmorrhage being consequently limited at the time, death from collapse need not take place, and if the treatment is judicious and movements are prevented repair may proceed even to a cure; but under other circumstances local peritonitis may be set up which may terminate favourably in rare cases, although in the majority of cases in another way. In such instances, with the first appearances of symptoms which suggest peritonitis—such as distension of the abdomen and local pain, with a return of vomiting or its aggravation—a surgeon would be quite justified in making an abdominal exploration, and I hold it should be done, for by such means a moderate mass of crushed liver may be removed and future hæmorrhage prevented by some antiseptic plug. An injured spleen may be dealt with either by removal or by the same means as have been described as being applicable to an injured liver; the abdominal cavity may be cleansed from blood, and the patient thereby placed in a position in which repair is possible—that is, if from age, disease, or loss of blood the patient is not rendered incapable of bringing about repair from want of power.

Crushed kidney rarely requires surgical interference, for no organ repairs so well and satisfactorily as the kidney after injury, and it is only in exceptional instances that the surgeon's interference is applicable. But this subject does not come under consideration on the present occasion. The typical case for surgical interference is, however, that of ruptured intestine, and athough its diagnosis is never certain it may be considered highly probable after the receipt of a diffused injury to the abdomen or a severe local injury, particularly if, as an immediate result of the accident, there is but little collapse and where vomiting soon becomes a prominent and persistent symptom, with lasting local pain and great thirst, and with or without abdominal enlargement. On reviewing the notes of the nineteen cases of intestinal rupture which I have recorded, these views are strongly supported, for it is interesting to read that the absence of serious primary collapse was very general; that vomiting of a persistent character was frequent, and vomiting of blood not rare; that local pain of a severe character was also common, and intense thirst a marked symptom, more particularly when the rupture was high up in the canal; and likewise that early abdominal distension was a symptom of importance, and that when present it was an indication for action rather than the reverse.

3. With the presence of these symptoms, therefore, in any case of abdominal injury brought about by forces which are likely to have produced such a rupture, and particularly if they have persisted for eight or ten hours and collapse has not been present, or, if present at first, has passed away, I should hold any practitioner free from blame if he suggested and caused to be carried out what is called a laparotomy—

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that is, an exploratory central abdominal incision, with the view of searching for and uniting a ruptured bowel if found to be present, or of arresting bleeding and giving a chance of life to a young subject or strong middle-aged man. But this measure, to prove successful, must be undertaken early—that is, not later than twenty-four hours after the receipt of the injury, and earlier if possible—for it seems that death within thirty-six or forty-eight hours of the accident is the rule, whilst some die earlier and a few later; but it is clear that the earlier the operation is performed the greater may be the chances of success. In old or feeble subjects such a measure is, however, out of court, but in young people and healthy subjects it ought to be undertaken.

CURRENT FROM THE MAIN.

BY W. S. HEDLEY, M.D. EDIN.,
MEDICAL OFFICER IN CHARGE OF THE ELECTRO-THERAPEUTIC DEPARTMENT OF THE LONDON HOSPITAL.

(Concluded from p. 1572 of Vol. II., 1895.)

1. *Continuous currents:* (*a*) *Physical characters.*—Although the current produced by the electro-motive force of the continuous current dynamo is unbroken and always flowing in one direction, it cannot be said to be absolutely uniform in strength. That is to say, the current obtained, for example, from a single dynamo having a commutator of only a few sections is undoubtedly a "pulsatory" current. But such are not the conditions that exist in dealing with continuous currents from modern central lighting stations. In the latter case a number of dynamos, usually running at different speeds and having commutators of numerous sections, are used "in parallel" with accumulators of large capacity. The current emanating from such a source cannot be called "pulsatory." Its line of electro-motive force with the now universal "constant potential" system may be regarded as practically straight.[1]

(*b*) *Chemical effects.*—It is a law of physics that electrolytic action is directly proportional to the quantity (coulombs) of electricity passed, irrespectively of electro-motive force or of any other condition. With a varying current there is an apparent anomaly. In this case instruments depending for their action upon thermal or magnetic forces do not read "true ampères." Are central station continuous currents sufficiently varying to share this anomaly? In other words, does a given reading of the milliampère meter represent the same amount of electricity whether the source of supply be a Leclanché battery or a continuous current electric light circuit? I have carefully tested this point by means of a Gaiffe's coulombmeter with a given current for a given time from these two sources respectively, and find that within the range of experimental accuracy (within 2 per cent.) the results are the same.[2] That is to say, from either source equal intensities, as indicated by the galvanometer, do an equal amount of electrolytic work in an equal time.

(*c*) *Physiological effects.*—With an unvarying current physiological effects appear to depend solely upon current—that is to say, equal intensities give equal effects, irrespectively of the relative amount of electro-motive force and resistance in the circuit. With varying currents these effects are influenced by the maximum current, and also by the rate of change of current value—i.e., by the suddenness with which the change is made. Approaching the vexed question as to whether with the lighting circuit (of, say, 100 volts) passed through a controlling resistance pain is greater than when the current is drawn from a battery of low voltage, the answer will depend upon *how* the resistance is placed. I hold that there is a difference between applying, say, 10 m.a. at 115 volts through a resistance placed *in series* with a patient and applying 10 m.a. with only just sufficient electro-motive force to overcome the resistance of the patient's body; and this will hold good whether the 10 m.a. be obtained from Leclanché batteries or from any other source. The reasons are as follow: (1) that at any break in the circuit the full voltage of supply is obtained, and (2) that upon completing circuit there is a much reduced electro-motive force across that portion of the circuit which was previously broken; therefore it follows that between the moment of completing the circuit and the establishment of steady "value" of electro-motive force there must have been a time rate of change, since no work can be done instantaneously. Now consider step by step what would appear to be the sequence of events in this case. On first closing the circuit there will be at that instant no current; following quickly there is to be expected a current rush, probably in excess of the normal, and this rush of current would probably steady itself (together with the electro-motive force) by oscillations of short period.[3] It is noticeable that with a dynamo current used through a resistance "in series" with the patient greater pain accompanies and a greater skin reddening follows the application than when a continuous current battery is used, and that both effects are decreased by pressing upon the electrode: in other words, by making a better electrical contact. In looking for an explanation of this it is to be remembered that an imperfect contact may have a high electro-motive force across it, and that the heat generated in any circuit or part of a circuit is in proportion to the watts absorbed. This may give rise to considerable local heating.[4] With high potential currents the available electro-motive force is greater, therefore the possible heating effect may be comparatively great. This may help to account for reddening and pain. The importance of a good contact (well warmed, well wetted, and carefully adjusted electrodes) is known to all who use such currents on the living body, especially with imperfect apparatus. And this leads directly to an infinitely important point, one which it is the chief object of this paper to insist upon—viz., that it is only by using an instrument constructed on the principle explained in THE LANCET of May 4th, 1895, that all these risks and difficulties are to be avoided. It is by means of this arrangement that a central station continuous current can easily be obtained of only the electro-motive force necessary for the purpose required. If this be the case (it is mathematically certain and practically demonstrable) it is obvious that many of the points just discussed need never arise in practice.

2. *Alternating currents.*—Those lighting circuits which are of an alternating kind may be described as currents not strictly sinusoidal, but partaking of the sinusoidal character and having alternations at the rate of about 5000 to 6000 a minute. It need not here be repeated that a strictly sinusoidal current takes its name from the fact that it "follows the law of sines as regards its variation in time." It is a current which gradually attains its positive and negative maxima and shows no lost time and no actual interruptions. Its potential rises and falls with perfect regularity. It is represented graphically by a "curve of sines," and may be contrasted with the sudden and "dissymmetrical" changes of potential shown by the pointed and irregular curve of a coil's alternations. The alternating light current differs from the sinusoidal chiefly in the comparative irregularity of its curves, an irregularity depending upon the construction of the dynamo, the "capacity" and "self-induction" of the circuit, and other causes. The faradaic current differs from both the foregoing in the fact that its positive and negative maxima are very suddenly attained and are unequal in extent; the current is therefore a "dissymmetrical" one. From these physical differences arises a dissimilarity in physiological effects. Inasmuch as the excitant action of an electrical current bears a direct ratio to the suddenness of the fall of potential it follows that the sinusoidal current will be better tolerated than the more brusque

[1] There are possible sources of variation of the dynamo current owing (1) to what is known as the "hunting" of the engine, a kind of see-saw movement of its governors; and (2) to the "regulation" necessary to maintain "constant potential" under varying loads.

[2] It is well to remember that when a wire rolled round a drum is used as a resistance the galvanometer may be influenced by its too great proximity owing to mutual induction.

[3] To explain this the analogy of the water-pipe will be found useful. A small water-pipe with a stopcock at its middle connects at each end with a water vessel or tank. Both vessels are partly filled with water, but one at a higher level and at considerably greater pressure than the other. If the stopcock be suddenly opened there may be expected (1) a sudden rush of water in the direction of the vessel of low pressure; (2) a rebound as it cushions against the otherwise stationary water, followed by oscillations within the pipe; and (3) a gradual and steady flow until both vessels are equal in height and pressure. If the modern electrical theory of wave motion in or of ether be accepted it is not difficult to adapt this analogy to the circumstances of the case in question.

[4] According to the C^2R law that the watts absorbed and heat generated in any part of a circuit are equal to the square of the current multiplied by the resistance.

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alternations of the coil. Also on this account it is equally evident that the latter for certain purposes can never be altogether supplanted by the currents of smoother curves. On the other hand, where effects on general nutrition rather than on muscular contraction are sought the latter currents present decided advantages. It has been shown by d'Arsonval that in a person subjected to alternating currents of a sinusoidal character, although the current be scarcely felt and excite no muscular contraction, the nutritive exchanges undergo an augmentation of from 40 to 50 per cent., the "respiratory capacity" being almost doubled. These effects are probably owing (1) to the large amount of electrical energy that can in this way be borne by the body, and (2) to an influence on nutrition due to the decompositions and recompositions that must ensue on the passage of an alternating current through the tissues. Now the alternating currents of commerce, partaking as they do of the sinusoidal character, make it possible to pass large amounts of energy through the body, whilst at the same time their comparatively sudden falls of potential determine a certain amount of muscular contraction. They therefore present a means of increasing the nutritive exchanges (1) by a direct action in virtue of their sinusoidal type, and (2) by an indirect action in virtue of the muscular contractions they induce.[5] Applied chiefly through the medium of the water-bath, this alternating lighting current is daily employed in practice. It seems to act as a general tonic and to stimulate the nutritive exchanges. Its employment has been followed by good results in chloro-anæmia, rickets, muscular atrophies of myopathic origin, obesity, gout, sciatica, and rheumatism, the latter in its articular as well as in its muscular manifestations. This current is easily handled for medical purposes, and its use is now by no means uncommon. Certain observers, among whom Gautier and Larat were the first, have carefully recorded and tabulated their experiences.

There now only remain to be dealt with the details of the control apparatus or "reducer of potential." For these I am indebted to the kindness and skill of Mr. Quin, electrician to the Brighton Corporation, to whom I had made known the difficulties and requirements of the case. He was good enough to place at my disposal the following drawings and descriptive particulars of a simple and efficient apparatus adapted to meet the varied demands of direct electrical treatment.[6] It is based upon the principle of the variable shunt already recommended and described by me,[7] but it presents some novel features: (1) The resistance is not altered step by step, but gradually throughout its whole range; (2) the switch and resistance are so interlocked that it is impossible to open or close the main circuit until the potential across the shunt circuit is *nil;* (3) it has a very wide range; and (4) it has an adjustable stop so that any range from zero to the limit may be obtained. It will at once be seen that this apparatus forms a convenient means of obtaining continuous current for the purpose named. In common with batteries it has the advantage that the pressure across the patient's circuit is only that absolutely necessary for the purpose in hand, whilst it is without many of the disadvantages inseparable from batteries—their uncertainty, polarisation, cost, and the ever-recurring trouble of recharging. Its use is not recommended upon transformed systems without the intervention of a good transformer.

Figs. 1 and 2 are the plan and elevation respectively;

FIG. 1.

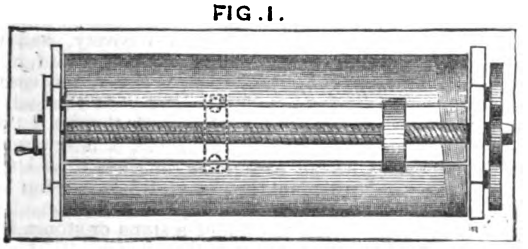
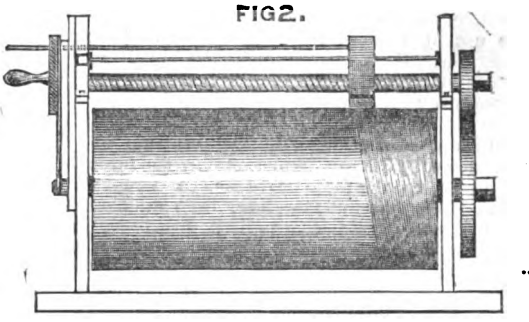


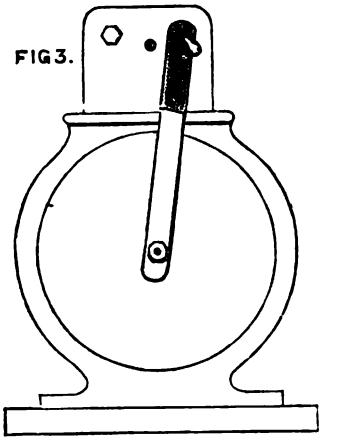
Fig. 3 is the end elevation showing the interlocking arrangement; and Fig. 4 is a diagrammatic sketch of the connexions. It will be seen that the resistance wire (which should be of platinoid or other high resistance metal) is wound upon a drum of rather large diameter, the wire being laid in a groove cut in the drum. Different sections of wire are used on the various portions of the drum, according to the demand for current in the therapeutic circuit. The total resistance of this wire is about 1000 ohms. The drum is mounted on a spindle and is capable of being revolved by means of a crank handle applied to the square end of

FIG 2.



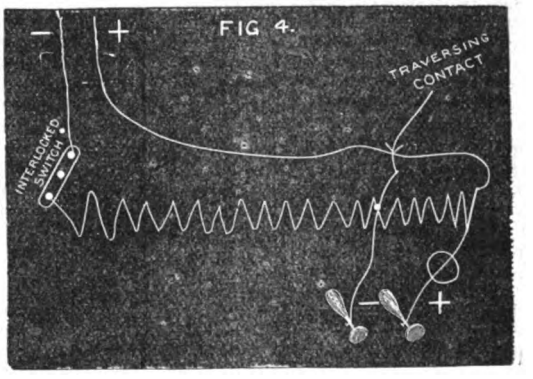
its own spindle or through gear, if the handle is applied to the square end of the top spindle. The drum spindle, if carried right through, should be fitted with an insulated coupling piece, as at each end it forms one terminal of the resistance wire. The top spindle (geared to the drum spindle) is threaded along its length,

FIG 3.



forming an endless screw. It is insulated from the end on which the switch is fixed, and also from the traversing contact which it drives. Two guide-bars for the contact are provided, which are insulated at the geared end and in contact with the top portion only of the switch end. Attached to the sliding contact is a metal bar, which is

FIG 4.



shown projecting through the switch end and the ebonite base of the switch. This bar forms the locking arrangement, and it will be seen that, unless the traversing contact is quite "home" and the bar thereby withdrawn, the switch cannot pass this point, and therefore cannot

[5] Revue Internationale d'Électrothérapie, p. 289, 1895.
[6] This apparatus will also actuate the coil, but cautery and the charging of accumulators will be separately considered.
[7] THE LANCET, May 4th, 1895.

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be placed either "on" or "off." An ebonite blocking-piece is fixed to the radial arm of the switch to prevent electrical contact between the switch and bar. While this instrument forms a ready means of utilising lighting currents (when not transformed) there still remain to be provided for those occasions when currents of sinusoidal or allied forms are required. These occasions are, as already stated, of fast increasing frequency in modern practice. Currents of this order may readily be obtained by the use of a small motor driving an alternating current-generator. Even if the supply be an alternating one this arrangement might be preferable to simply using the current through a transformer, inasmuch as both the electro-motive force and "frequency" of the useful circuit could thus be accurately controlled. By the insertion of "resistance," "capacity," or "self-induction" in the circuit the shape of the electro-motive force curve also can be regulated.[8]

The ideal system, therefore, from an electro-therapeutic point of view would seem to be a direct continuous current supply with a traversing interlocked shunt rheostat for the purposes of direct application, together with a motor-driven alternator and arrangements for varying speed, field excitation, and the insertion of "capacity," "self-induction," or "resistance" periodically or continuously into the circuit. With these arrangements and with the safety devices previously recommended any form of current can be obtained with a wide range of electro-motive force and periodicity ("frequency"), and at the same time with an absolute absence of risk. The time ought to be approaching when electricity will be prescribed and administered not only in measured units of intensity, density, and time, but with definite ideas of the shape of the electro-motive force curve and of the therapeutic indications that a given curve may be expected to fulfil.

(Since the above was written it has become evident that a change is imminent in the official definition of "low pressure." The committee of experts appointed to advise the Board of Trade on this point recommend that "when the conditions of the supply are such that the pressure may at any time exceed 500 volts if continuous, or 250 volts if alternating . . . . the supply shall be deemed a "high-pressure' supply." The limit of low pressure is thus raised to the figures named. It is further provided that "the pressure of a supply delivered to any consumer shall not exceed 250 volts at any pair of terminals." Thus, on the multiple wire system a 500 volt shock would be obtainable across the outer mains. If the neutral wire be not earthed it becomes in the highest degree probable that the negative pole will get to earth by electrolysis; in such a case a 500 volt shock could be got from the positive pole to earth. If this higher standard of voltage be adopted it would appear (1) that, in the interests of safety, the earthing of the neutral pole ought to be not only "allowed" for one class of main, but insisted upon for every class; (2) that, regarded from the standpoint of the present paper, it is evident that, for medical employment, the safeguards already recommended[9]—viz., the placing of the patient on the neutral pole and his effective insulation from earth—would become absolutely imperative; (3) that a still higher resistance (between the mains) would become necessary in the sliding shunt rheostat[10]; and (4) that with "the neutral" earthed and the above precautions taken safety is secured even with the increased voltage. In connexion with this report other questions of medical interest arise. Of these, one of the most important is the relative danger to life of continuous and alternating currents. The committee seem to consider that the latter are just twice as dangerous as the former. It would be interesting to know the nature of the evidence on which this opinion is based. The question has already been referred to in THE LANCET and cannot be entered upon now, but certainly it is one about which the last word has not yet been said.)

Brighton.

[8] The method of accomplishing this is not difficult, but its details might be considered to be too technical for the pages of THE LANCET.

[9] THE LANCET, Dec. 21st, 1895, p. 1571.

[10] This could easily be done by using an eight candle-power (or smaller) lamp in series with it, taking care that full incandescence is attained under working conditions.

MEDICAL MAGISTRATE.—Mr. M. B. Mackenzie, B.A., M.D. R.U.I., of Lisburn, has been appointed to the Commission of the Peace for County Antrim.

CASES ILLUSTRATING THE SURGERY OF THE KIDNEY.

BY J. KNOWSLEY THORNTON, M.B., C.M. EDIN.,
CONSULTING SURGEON TO THE SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, AND TO THE NEW HOSPITAL FOR WOMEN, AND TO THE GROSVENOR HOSPITAL FOR WOMEN.

(*Concluded from p. 1493 of Vol. II., 1895.*)

THE present communication brings the record of my cases to an end; the series of papers which commenced in January, 1895, gives a complete picture of my work in renal surgery, with its successes and its failures, from its commencement to the present time, and I trust that it may be useful, not only to those who are working in the same field, but also to the great body of practitioners who have to advise their patients for or against surgical interference when diseases which seem to demand the surgeon's aid arise. I have always myself derived more benefit from the carefully recorded cases of others than from the most brilliant theoretical dissertations, however thoughtful and suggestive they may have been, and I venture to think that the present series is all the more valuable because, having experimentally and practically arrived at a definite opinion as to how this branch of surgery can be best adapted to the benefit of the patient, I have in all but a very few of the early cases consistently followed the path I have marked out. When a similarly complete record of the work of any surgeon who prefers the loin incision is before the profession it will not be difficult to decide which method gives the best results in the ordinary run of cases. At present no such record is available for comparison—there are merely isolated reports of cases, and these nearly always the successful ones, which without the faithful record of the concurrent failures are of little practical value.

CASE 30.—This is a reappearance on the scene of Case 20[1] for a second operation. In a very few months after the first operation the patient, a young man aged twenty-five years, began to have hæmaturia after any extra exertion, and, later, pain in the loin became very constant and troublesome, this being also made worse by extra exertion, errors in diet, and exposure to cold. I felt convinced that either a fragment of the broken calculus or one of the minute ones, like those previously removed, must have escaped the washing out and drainage, and I advised another exploration; but he very naturally shrank from it, till increasing pain and hæmorrhage forced him to consent. I operated on Oct. 24th, 1895, cutting out the abdominal scar entirely—my invariable practice when I have to perform a second operation. He again took the chloroform very badly, giving us great anxiety several times during the operation. The trouble we had from this at the first operation undoubtedly led to a less thorough examination of the kidney than it would otherwise have received, and I overlooked a calculus in one of the calyces in the upper part of the kidney. This was a large barrel-shaped stone, with smooth surface except at the two ends, which were covered with rough and sharp points. It was about the size and shape of an ordinary nutmeg and was projecting from the calyx into the pelvis of the kidney. Doubtless the hæmorrhages were caused by the dilatation, and the pain chiefly by the blocked secretion distending the calyx behind the stone. He made a smooth recovery, and was just leaving the nursing home as I penned this record, about seven weeks after the operation. This is the second case in which I have overlooked a stone or stones in the calyces when removing a stone from the pelvis, and, though I think it is an accident which is very excusable, it is one which should not occur with an abdominal incision to aid one; and these two cases will doubtless be useful in causing both myself and others to make a thorough examination of the whole kidney, even after removal of a stone or stones from the pelvis or other parts of the organ, sufficient to account for the symptoms for which the operation was undertaken.

CASE 31.—The patient was an exceedingly tuberculous-looking young woman aged twenty-six years, who had been more or less of an invalid for several years, with symptoms of right renal calculus, the attacks of pain having of late become severe and frequent. The urine contained a great deal of pus, and, though the symptoms decidedly

[1] See THE LANCET, Oct. 26th, 1895.

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pointed to calculus, I could not help fearing that we might find a tuberculous kidney. Examinations of the urine for bacilli gave negative results. I operated on Nov. 16th, 1895, and on introducing my finger into the abdominal cavity I quickly felt what I believed to be a small calculus just at the junction of the ureter and pelvis of the right kidney. She was in an exceedingly feeble condition and just at the moment became so alarmingly collapsed that I lost touch with it, and while hunting about for it came upon another, much larger, rough calculus in the pelvis of the kidney. This I removed without much difficulty, pushing it gradually out of the kidney by pressure from the peritoneum, and guiding it on the tip of my right index-finger introduced through the small loin incision into the pelvis of the kidney. I often find this plan preferable to the use of scoop or forceps; one is much less likely to break the stone—a very important matter. Having thoroughly examined the kidney, I proceeded to search for the small body I had first felt, and came upon another large, irregular, hard body which I at first thought was a stone in the ureter, but on more careful examination I found that it was a calcareous gland lying alongside of the ureter. I dissected it out, and then found and removed the small body I had felt before; it was also a calcareous gland, and a further search revealed the presence of a chain of them all down the side of the ureter. The patient had several times been in such a collapsed condition that Dr. Callender, who gave the chloroform with great care and skill, was afraid we should not get her off the table alive, and I thought it wise not to prolong the operation by attempting to remove all the diseased glands. I therefore closed the abdominal incision and placed a rubber tube beside the kidney in the loin wound. She rallied very slowly from the chloroform, and was very weak for some days, but has since been rapidly gaining strength, being much better than before the operation, both wounds having healed in rather under four weeks.

This case completes the series of ordinary nephro-lithotomies, but there are two other cases in which stones were removed from the ureter and kidney respectively, though under such complicated conditions that I do not think they can fairly be classed with ordinary cases of nephro-lithotomy, and I therefore place them in a separate class by themselves.

The first case was that of a single woman aged twenty-seven years, who was sent to me in July, 1888, by Mr. Prince, then practising at Sawston in Cambridgeshire. She had suffered from symptoms of renal calculus from the age of seven to seventeen years, when she passed a calculus and was quite well for some years, but there was always a white, powdery sediment in her urine. At Christmas, 1887, she had a sudden attack of renal colic, and the attacks recurred at intervals of ten or twelve days till she was admitted into the Samaritan Free Hospital under my care. On examination the only abnormality I could detect was a very tender swelling, about the size of a walnut, close to the entrance of the right ureter into the bladder. This I decided to explore, and on opening the abdomen on July 11th, 1888, I found a small adherent ovarian cyst filling the right side of the pelvis. This I removed, and then under it I found the swelling felt per vaginam, which was evidently a dilatation of the ureter containing calculi. I dilated the urethra and after much trouble extracted two oval calculi and a quantity of phosphatic fragments by incising the mouth of the right ureter partly by a guarded bistoury and partly by small blunt-pointed scissors. On proceeding to wash out the bladder some of the lotion and some phosphatic matter passed into the peritoneum. I sutured the opening with fine silk and carefully washed out both the bladder and the peritoneum, placing a Sims's self-retaining catheter in the former and a glass tube in the latter, with the usual sponge dressing. The right ureter was sacculated and greatly dilated, and the kidney was represented by a thin-walled bag. The left kidney was normal. On waking from the chloroform the patient displayed acute maniacal symptoms of a religious kind (she was always a poor, weak-minded girl), and the fright and shock of the operation seemed to quite upset her mental balance. The pelvis and bladder both drained well, and the abdominal incision healed, but she became more and more violent, pulling off the dressings and meddling with the tube; then the wound began to open again, the discharge became more urinous, and on the twelfth day sudden suppression set in, and she died on the thirteenth day. There was never any fever after the operation, but the pulse was quick all through, and I think her condition was undoubtedly aggravated by the absorption of urine in the pelvis; her mental condition, however, never gave her a fair chance. In any future case of a similar accident I shall make an opening from beside the wounded ureter into the vagina and drain into it, carefully suturing two layers of parietal peritoneum over the site of the injury, and at the same time remove the sacculated kidney and ureter. The urine draining from the kidney kept the deep wound from healing.

The second case was that of a widow aged fifty-one years, who was admitted into the Samaritan Free Hospital in July, 1889. She was the mother of eleven children, with a history of twenty years' suffering from right renal colic, accompanied by frequent hæmaturia. The hæmorrhage had ceased for fifteen years, but for some years there had been much pus in the urine. I found a large movable right kidney and a very tender ureter. On July 23rd I removed this kidney by abdominal incision and found a stone either in the ureter or in a dilated and prolapsed renal pelvis—I could not satisfy myself which—of the opposite kidney; this I removed by lumbar incision. The right kidney, unfortunately, ruptured during removal, and there was a considerable escape of its contents into the sac, from which I had enucleated it, but not into the peritoneum. This accident, I have no doubt, helped to bring about the fatal ending. The temperature ran up to 102·2° F. very shortly after the operation, but fell again quickly, and for the next two days the condition was altogether satisfactory, plenty of good urine passing into the bladder, besides what drained from the loin wound into the dressings. On the morning of the third day bronchitis set in, and two days later pneumonia, and she died on the sixth day. Though there was no sign of septicity in the discharge from the glass tube draining the sac, the discharge continued longer than it usually does, and I have little doubt that a septic condition the result of the accidental fouling of the sac was the real cause of death. The result was disappointing, as she promised very well for the first two days, considering the highly formidable double operation.

In November of the same year I operated upon a single woman aged thirty-two years at the Samaritan Free Hospital, and found a small stone in the pelvis of a remarkably high and small right kidney, but after prolonged efforts altogether failed to extract it, and left it, hoping that it would slip away beside or through the drainage-tube. The patient had several relapses, with increase of discharge from the loin wound in the course of a slow convalescence, but the stone was never found. She eventually got quite well, and when last heard of had had no return of renal symptoms. The only way in which I could possibly have got this stone away was by resection of a rib, my fingers being too short to guide any instrument up to the stone. This I did not think justifiable, as I felt pretty sure that this small stone would with the flow of urine find its way out into the wound, and I should think it did, though it was not found.

In June, 1888, in consultation with the late Mr. Coulson, I opened the left kidney of a young woman who was invalided and had markedly all the symptoms of calculus, including smart hæmorrhages on exertion. So confident was I that I cut into the kidney from the loin, though I could feel no stone from the peritoneum. A most careful search failed to detect anything wrong with the kidney. I drained it for a time, and then let it close up, and within a year she walked ten miles without fatigue or trouble. Such cases are very difficult to understand.

In June, 1890, I explored the kidney of a young married man with all the symptoms of calculus. He had already had an exploration through the loin performed by a leading London surgeon without result, and I failed to find anything wrong with either kidney. He recovered, but with his symptoms unrelieved.

In November, 1890, in consultation with Sir Andrew Clark, I explored the right kidney of a married woman of middle age, who was reduced almost to death's door by constant suppuration and consequent fever. I found no stone, but prolonged drainage restored her to very fair health. She continues to wear a rubber tube in the loin, but there is no discharge from the kidney through it, only she feels safer with it in.

Earlier in the same year I operated upon a married woman thirty-seven years of age, who had long suffered

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with symptoms of calculus, and who had been sent by Mr. Crew of Higham Ferrars, but found only a large suppurating kidney, which healed with careful drainage, and she is now in good health. In the same year I explored the kidney of an elderly woman in very broken-down health with Mr. Robert Priestley. I could find nothing to account for the suppuration, and the patient gradually sank, apparently from the shock of the operation. This is the only fatal case I have had in simple incision and drainage of the kidney.

I have performed abdominal section in six other cases besides the above where there was a suspicion of calculus. In three I failed to find anything wrong; two of the patients got quite well and lost their symptoms, and one still has pain and occasional hæmorrhage and clamours for a further exploration. In one of the others I found a perirenal abscess which discharged itself into the pelvis of the kidney from my handling, and the patient got quite well. In the other two—one that of a man and the other that of a young woman—I found suppurating kidneys with inadequate ureters, but such unhealthy organs on the opposite side that I feared to perform nephrectomy. Both are wearing rubber tubes in the kidney and a suitable receiver strapped to the side. Both enjoy very fair health so long as they keep the tube clear and clean, but at once get into serious trouble if the tube blocks or slips out, the symptoms being rapid distension of the kidney, with great pain, high fever, and constant desire to pass urine. All these symptoms at once subside on the reintroduction of the tube, but the renal region remains tender for some days. I have two young married women wearing tubes in their kidneys after attempts being made to cure hydronephrosis by incision and drainage. One has worn her tube since 1887, and the other since 1888, and both get into trouble similar to that of the above cases if the tube comes out. All four of these patients prefer to go on as they are, rather than risk nephrectomy, so that the wearing of a renal tube and urinal cannot be such a seriously disagreeable condition as one would imagine.

Besides the above cases I have twice opened through the loin very large suppurating sacs communicating with the pelvis of the kidney—once in a middle-aged married woman, who only lived a few weeks after the incision, dying from some lung complication when I was not in attendance, and the other time in a fine, strong man, who had received a violent blow over the left kidney in a yachting accident a year before I saw him. When I saw him his urine was half pus, and he had a yellow, parchment-like skin and was much emaciated, with œdematous feet and legs and an enormous swelling in his left loin. This I opened freely and drained, and he soon regained his usual good health.

One other curious case completes the record of my experience in renal surgery. A single woman twenty-nine years of age was admitted under my care in the Samaritan Free Hospital in 1885. There was a large fluctuating swelling in the left side of the abdomen, which, from the relation of the colon to it, was evidently renal or in the situation of the kidney. The left ureter could be felt per vaginam, being large and hard. She had been suffering from attacks of renal colic and hæmaturia for two years, and from childhood had suffered from attacks of pain in the left renal region about once in a year. There had also been at times similar attacks in the right side. Just before her admission the attacks had become very frequent and severe. The urine was of low specific gravity, pale, clear, and slightly albuminous. The deposit consisted of uric acid crystals, blood-cells, and a great quantity of small, round, epithelial cells. On Oct. 24th, 1885, I explored, and found the left ureter to be enlarged and tense; the right ureter was normal; the right kidney was small, but cystic and atrophic, its lower part being a mere thin-walled sac. The left kidney was hydronephrotic. I tapped it and emptied it, and then made a most careful examination of both kidneys and ureters, but could find no stone or anything to account for the cystic condition. I therefore closed the abdomen. The patient made a smooth recovery and returned home fairly well, but died in a few months with vomiting and gradual wasting away. This is one of the obscure cases, which remains as much a mystery after exploration as it was before.

The first four cases in which I opened and drained the kidney—the first nearly twenty years ago—were recorded in a paper published in the *Medical Times and Gazette* of May 6th, 1882, and I need not further refer to them. The total number of patients operated upon is 115, of whom 98 recovered and 17 died, which gives a mortality of about 14½ per cent. When one examines the cases in classes the following results are found:—Abdominal nephrectomy, 49 cases, 10 deaths; nephro-lithotomy, 31 cases, 4 deaths; incision and drainage of suppurating kidneys, 12 cases, 1 death; incision and drainage for hydronephrosis, 2 cases, no deaths; mere explorations without incising kidney, 4 cases, no deaths; cases in which the kidney was opened, but the stone not removed or not found, 2 cases, no deaths; unclassed, 3 cases, 2 deaths; and nephrorrhaphy, 12 cases, no deaths.

In conclusion, I may point out that in many of the cases recorded I have purposely omitted the name of the private medical attendant, and occasionally other details which would be likely to be recognised by the reader. It is often difficult, in reporting a series of cases, to give the essentials from a scientific standpoint and at the same time to avoid local colouring which may make the case too easily recognisable to the chance lay reader.

Montagu-square, W.

A SPECIAL MILK FOR INFANTS (CREAM MILK).

BY EDMUND CAUTLEY, M.D. CANTAB.,
PHYSICIAN TO THE BELGRAVE HOSPITAL FOR CHILDREN.

IT is a well-established fact that the natural food for an infant is human milk, and that if, for any reason, human milk is not available, cow's milk is the cheapest and best substitute. Unfortunately, cow's milk differs in composition very largely from human milk, and the preparation of a mixture of cow's milk suitable for the infant involves considerable trouble on the part of the medical adviser in giving careful directions, and on the part of the mother or nurse in carrying out these directions. Needless to say, the result is by no means always satisfactory. The object of the present paper is to bring before the profession the advantages of a special preparation of cow's milk suitable for infants and ready for immediate use.

The mode of preparation is based upon the average composition of human milk and the average composition of cow's milk as obtained in London from one of the dairy companies. The mixed milk of a large dairy company is taken as a standard for the reason that its composition is much less variable than the milk of any one cow. Human milk is a sterile alkaline fluid varying largely in its composition. Leeds obtained the following results from the analysis of the milk of about sixty women of different ages and nationalities and at different periods of lactation:—

Human Milk: Leeds' Analysis (weight in grammes per 100 grammes of milk).

—	Maximum.	Minimum.	Average.
Proteids	4·86 p. c.	0·85 p. c.	2·0 p. c.
Fats	7·00 ,,	2·00 ,,	4·0 ,,
Lactose	7·90 ,,	5·40 ,,	7·0 ,,
Ash	0·37 ,,	0·13 ,,	0·2 ,,

Other observers give somewhat different results, tabulated below for comparison:—

Human Milk: Average Analysis (weight in grammes per 100 grammes of milk).

—	Leeds: Results obtained from 60 women.	Luff: Results from the analysis made for Cheadle of the milk of 12 women.	Meigs: Results obtained from 43 women.	Rotch: Mean analysis from the results of many other observers.
Proteids ...	2·0 p. c.	2·35 p. c.	1·046 p. c.	1·0—2·0 p. c.
Fats	4·0 ,,	2·41 ,,	4·283 ,,	3·0—4·0 ,,
Lactose ...	7·0 ,,	6·39 ,,	7·407 ,,	7·0 ,,
Ash	0·2 ,,	0·34 ,,	0·101 ,,	0·2 ,,

Cow's milk by the time it reaches the consumer is acid and crowded with micro-organisms. It commonly contains

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particles of various foreign bodies, such as epidermal scales, dust, manure, &c., and sometimes preservative agents. During last winter I analysed eight specimens of cow's milk, obtained from one of the dairy companies, according to these methods. The ash was estimated gravimetrically; the fats by Schmidt's process; and the lactose by Fehling's method, this proving more satisfactory than either Pavy's or Knapp's method. The proteids were calculated by estimating, by Kjeldahl's process, the amount of nitrogen in the precipitates obtained—(*a*) by adding tannic acid—total proteids; (*b*) by adding acetic acid—caseinogen; and (*c*) by adding tannic acid to the filtrate obtained from (*b*)—lact-albumin.

Mean of Eight Analyses of Cow's Milk.

Water			87·0 per cent.
Solids			13·0 ,,
Proteids	Caseinogen ... 2·6	...	4·06 ,,
	Lact-albumin 1·4		
Fats			3·70 ,,
Lactose			4·48 ,,
Ash			0·76 ,,

These results agree very closely with those obtained by other observers. Thus Leeds gives the following as the result of numerous analyses:—

Analysis of Cow's Milk: Leeds.

—	Maximum.	Minimum.	Average.
Proteids	6·0 p. c.	3·0 p. c.	3·76 p. c.
Fats	6·0 ,,	3·0 ,,	3·75 ,,
Lactose	5·5 ,,	3·5 ,,	4·42 ,,
Ash	0·9 ,,	0·6 ,,	0·68 ,,

Taking the results of my own analyses of cow's milk and Leeds' analyses of human milk as a basis, I suggested to Mr. Richmond, the analyst of the Aylesbury Dairy Company, at the last meeting of the British Medical Association, that the company should prepare a special milk for infants according to the following process. Taking an equal quantity of mixed cow's milk and a 10 per cent. solution of lactose, the whole is passed through a separator so arranged that the two outgoing streams are equal. It is thus divided into two equal parts, one of which contains practically the whole of the cream and may be termed *cream milk*, while the other contains practically no cream and may be termed *skimmed milk*. The composition of these two fluids would therefore be as follows:—

—	Cow's milk.	Separated milk.	
		Cream milk.	Skim milk.
Proteids	4·0 p. c.	2·0 p. c.	2·0 p. c.
Fats	3·7 ,,	3·5 ,,	0·2 ,,
Lactose	4·4 ,,	7·2 ,,	7·2 ,,
Ash	0·7 ,,	0·35 ,,	0·35 ,,

The Aylesbury Dairy Company kindly undertook to prepare the milk of the following quality, and supplied it for trial to the Belgrave Hospital for Children.

—	Cream milk.	Human milk.
Total solids	13·11 p. c.	13·20 p. c.
Proteids	1·82 ,,	2·00 ,,
Fats	4·02 ,,	4·00 ,,
Lactose	6·88 ,,	7·00 ,,
Ash	0·39 ,,	0·20 ,,

It will be seen from the above table how closely the prepared milk resembles human milk in composition. The milk is well taken and digested by infants, but it was found that the percentage of fat was higher than some of them could digest. The amount of fat has since been reduced to 3·7 per cent. with excellent results. It is supplied in air-tight bottles, and is previously Pasteurised at a temperature of 160° F. It is also rendered faintly alkaline.

The advantages of a milk-supply of this nature are numerous and obvious. 1. By the process of separation a large number of deleterious substances which accidentally contaminate milk, such as particles of manure, epidermal scales from the hands of the milker or the udder, hairs, dust, &c., are removed. Needless to say, such constituents are very liable to be injurious to an infant. 2. By the process of Pasteurisation the countless organisms present in milk are destroyed. It has been shown that a temperature of 160° destroys the bacilli of tubercle, typhoid fever, diphtheria, and many others. The liability of the transmission of disease to the infant by the milk-supply is consequently abolished. 3. A substitute for human milk is supplied ready for use, and the trouble involved in the methods at present adopted is abolished. That this trouble is no slight one is well illustrated by reference to the artificial substitute which Rotch recommends:—

Rotch's Mixture.

Cream (centrifugal cream, 20 per cent. fat, diluted ¼ or ⅓)	2 oz.
Milk	1 ,,
Lime water (diluted ¾)	2 ,,
Milk sugar solution (lactose 3⅜ dr., water to 3 oz.)	3 ,,

This is even more complicated than the mixture which I commonly recommend:—

Cream (20 per cent. fat), 10 parts, e.g.,	1 oz.
Milk, 30 parts ... ... ,,	3 ,,
Water, 30 parts ... ... ,,	3 ,,
Lime water, 10 parts ... ... ,,	1 ,,
Milk sugar, 4 parts ... ... ,,	3 dr.

Both these mixtures involve considerable care in the preparation and the buying of four different articles. If the nurse and mother are careless or stupid it is impossible to rely on the directions being properly carried out. Besides this, cream is liable to be acid and not to mix well with the milk. 4. The milk can be diluted without altering the relative proportions of the different solid constituents to each other. No matter how much water is added, the solid constituents have the same relative ratio to each other as in human milk. Hence if a child be weakly or atrophic, or if the digestive functions are impaired, the milk may be given in a diluted form without depriving it of any one constituent rather than another, and an increased quantity may be given.

With regard to its disadvantages, the analysis shows that the total amount of proteid is practically the same as in human milk, but it must not be forgotten that the proportion of caseinogen to lact-albumin in the former is as two to one, and in the latter as one to two. Consequently, the curd produced is not as fine as in the case of human milk. Comparative tests with acetic acid give these results:—(*a*) Ordinary milk: large coherent curd. (*b*) Ordinary milk, 1 part *plus* water 1 part: small flocculent curd. (*c*) Special milk: curd rather finer than *b*. (*d*) Special milk, 2 parts *plus* water 1 part: curd finer than *c*. (*e*) Special milk, 1 part *plus* water 1 part: curd finer than *e*. (*f*) Special milk, 1 part *plus* water 2 parts: practically uncurdled. Thus the curd produced by acetic acid is a little finer than in the case of ordinary cow's milk diluted with an equal quantity of water; but considerable dilution is required in order to produce similar results to those obtained by adding acetic acid to human milk:—

Effects of Dilution of the Cream Milk.

—	Parts.	Parts.	Parts.	Parts.
Milk	Undiluted	3	2	1
Water...	—	1	1	1
Proteids	1·82 p. c.	1·36 p. c.	1·21 p. c.	0·91 p. c.
Fats	3·70 ,,	2·78 ,,	2·46 ,,	1·85 ,,
Lactose	6·88 ,,	5·16 ,,	4·59 ,,	3·44 ,,
Ash...	0·39 ,,	0·29 ,,	0·26 ,,	0·19 ,,

It is obvious that dilution with 1 part of water to 3 parts of milk renders the fluid only equal in quality to a moderate specimen of human milk. It is equally obvious, on the other hand, that, even diluted with 1 part of water to 2 parts of milk, it is richer in fat than the average diluted cow's milk given to infants. As a general rule, a hand-fed infant is overfed as regards quantity and underfed as regards quality. The child especially suffers from a deficiency of fat. Fed on this special milk diluted the infant will not suffer from any deficiency of any one constituent, provided that the quantity given be increased. Some infants can only digest a milk containing a very small amount of proteid; in such a case the difficulty can be easily met

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by diluting this milk and giving more of it at a time or more frequent feeds. Another disadvantage is that, as a result of heating the milk to 160°, it is largely deprived of its anti-scorbutic properties. This is far outweighed by the advantage of destroying the micro-organisms present. In towns it is absolutely impossible to feed an infant on unboiled milk or un-Pasteurised milk without grave risks, and even in the country it is not safe, unless the cows are known to be perfectly healthy and the milk is obtained quite fresh. As a rule, the milk which reaches the consumer in London is twelve hours old. Centrifugalisation is not sufficient to render the milk non-injurious. I tried this special milk on several infants without having it Pasteurised, and it almost invariably caused vomiting. The higher the temperature to which the milk is exposed, and the longer the exposure, the greater the loss of its anti-scorbutic properties. Exposure to 160° for fifteen minutes probably does not lessen these properties more than boiling.

Directions for feeding.—It is estimated that a woman in full milk secretes from 700 to 800 c.c. per diem. Calculating from the lower estimate this means seven feeds each consisting of 100 c.c. = 3½ oz. A healthy infant five or six months of age will take this amount readily. It is usual in artificial feeding to calculate the amount of each feed from the weight of the child at birth, giving a hundredth part of the weight in grammes and allowing an additional gramme for each day during the first month. An infant weighing 3000 grammes (= 6½ lb.) would require therefore—

During the	first	week	30	grammes	= about	1 oz.
,,	,, second	,,	37	,,	= ,,	1¼ ,,
,,	,, third	,,	44	,,	= ,,	1½ ,,
,,	,, fourth	,,	51	,,	= ,,	1¾ ,,

During the second month the amount may be increased gradually by a quarter of an ounce a week, the total amounting to 3 oz. by the end of the ninth week. From the age of nine weeks to six months from 3 to 4 oz. are sufficient for a feed, and from six to nine months from 5 to 6 oz. are enough. After the second month six or seven feeds may be given in the twenty-four hours at intervals of three hours. With this special milk I find that this is very liberal feeding and rather more than the average child requires. When the child is first put upon this milk it is advisable to give it diluted for a few days in order to gradually accustom the stomach to the change in diet. This is especially necessary in the case of children under three months of age, on account of the difference in the relative proportion of proteids from those of human milk.

Financial considerations.—The Aylesbury Dairy Company have undertaken to supply this milk, and guarantee the quality, at the rate of 6*d*. a pint. At first sight this seems expensive for the consumer; but considering that it requires special preparation, Pasteurisation, and delivery in vacuum-stoppered bottles the charge is by no means high. To judge whether the expense is too great we must compare it with the cost of the supply of a mixture as at present ordered, such as Rotch's or the one I recommend. Both these substitutes require a considerable amount of cream. Ordinary cream, containing about 15 per cent. of fat, costs on an average 1*s*. 6*d*. per pint; cream containing 20 per cent. of fat costs on an average 2*s*. per pint. The cost of a supply of this special milk for an infant taking seven feeds per diem of 4 oz. each will be 9*d*. daily. The cost of an infant taking a similar amount of Rotch's mixture would be 9*d*. for the cream alone. The cost of an infant taking a similar amount of the mixture I recommend would be 6*d*. for the cream, seeing that a less quantity than a quarter of a pint could hardly be bought at once. It is clear, therefore, that an infant can be fed on this special milk at a cost less than that of the mixture Rotch recommends, and slightly, if at all, greater than that of other substitutes which provide the proper amount of fat. In addition to this, the carbohydrate is supplied in the same form as it is present in human milk—viz., as lactose; the necessity of buying and adding lime water is avoided; and the trouble of providing a suitable food for an infant is reduced to a minimum. Of course, the expense is greater than is involved in feeding an infant on weak dilutions of milk and water, with the addition of sugar and an occasional teaspoonful of cream; but it is needless to point out that infants so fed almost invariably become rachitic.

In conclusion, I wish to emphasise the advantages pertaining to the use of this milk: 1. The child receives a food containing all the necessary ingredients in proper proportions. 2. There is no deficiency of fat in the food. 3. The food is devoid of micro-organisms, and the danger of the development of tuberculosis and other diseases spread by milk is avoided. 4. The most unintelligent mother or nurse can give the food properly, the preparation consisting merely of warming the food. 5. The dangers arising from the careless use of dirty saucepans and from the use of acid, or otherwise altered or contaminated, milk are avoided. 6. The difficulty and trouble in obtaining a good supply of milk and cream of *constant* quality are avoided. 7. The medical attendant's time and trouble involved in writing out careful directions for each case are very much diminished. 8. The children thrive remarkably well upon this milk.

Upper Brook-street, W.

CANCER OF THE BREAST.

BY CHARLES E. JENNINGS, M.D., M.S. DURH. F.R.C.S. ENG.,
LATE ASSISTANT SURGEON TO THE CANCER HOSPITAL, BROMPTON.

I VENTURE to offer some remarks on the diagnosis, prognosis, and treatment of cancer of the breast, and for that purpose now present a series of the first 100 cases of diseases of the breast observed by me some years ago in hospital practice. My notes show the diagnosis or description recorded in a few minutes as regards each case upon first seeing the patient. Each patient applied to me under the belief that she was suffering from cancer; but of the 100 cases now referred to I diagnosed 54 as malignant, 44 as benign, and 2 remained unclassified either as malignant or benign. Of the 100 patients only 13 gave a history, of any reliability, of cancer in their families, and of these 13 patients only 6 were diagnosed as suffering from malignant disease, but one of the two unclassified ones rendered a history of malignant disease in her family. Therefore, exactly 1 in 9 of the patients who were suffering from cancer yielded a history of heredity so called, and nearly 1 in 7 of the patients who were not suffering from cancer yielded a family history of that disease. I would specially direct attention to this feature, because, though it would appear now as evolved from only a consideration of 100 cases, yet this observation coincides with my general experience, and I am satisfied that nothing can be better calculated to produce an error in diagnosis than the attachment of importance to any history, either positive or negative, which may be offered in any case upon the point in question. Of the 13 patients in my list who gave a reliable history of cancer I now give the case numbers and the relative or relatives in each case affected. First, of the malignant cases: Case 2, aunt; Case 23, cousin; Case 24, cousin; Case 26, aunt; Case 47, brother and grandmother; and Case 79, aunt. Secondly, of the benign cases: Case 3, history doubtful; Case 14, cousin; Case 45, sister; Case 46, grandmother; Case 81, mother; and Case 90, aunt. Thirdly, of the unclassified cases: Case 35, mother.

In my opinion the diagnosis of cancer should be based almost entirely upon the physical characters of the breast, assisted in some instances by a consideration of the age of the patient and of conditions which may antecedently to the time of examination have created a lesion in the organ under examination. Both breasts and both axillæ, for the purposes of comparison, should always be examined. I have epitomised my notes of the hundred cases as follows[1]:—

1. S., 41. Scirrhus of the left breast and axillary glands.
2. M., 75. Scirrhus of the left breast, ribs, and axillary glands; duration four years.
3. S., 35. Chronic mammary induration and adenoma a quarter the size of a walnut.
4. M., 34. Scirrhus of the left breast and axillary glands; duration from five to six months.
5. M., 32. Adenoma half the size of a walnut in the left breast.
6. M., 49. Carcinoma of both breasts of two and a half years' duration; under medical treatment during preceding five weeks.
7. M., 46. Chronic induration of the breast and cyst; duration from two to three months.
8. M., 63. Carcinoma of both breasts; duration eight months.
9. M., 42. Adenoma the size of half a walnut in the right breast.
10. M., 64. Scirrhus of the right breast and axillary glands; duration about three years.
11. S., 11. Precocious development of the right breast.

[1] "S." means single, "M." married, and the numerals following the capitals indicate the ages of the patients.

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12. M., 47. Scirrhus of the right breast and axillary glands; duration seven months.
13. M., 45. Carcinoma of the right breast; duration four months.
14. S., 23. Neuralgia of the right breast.
15. M., 31. Adenomata of the left breast; duration five years.
16. M., 41. Infiltration of the left breast; commencing malignant disease.
17. S., 18. Chronic infiltration of the left breast; benign.
18. M., 43. Scirrhus of the left breast; duration from four to five months.
19. S., 41. Node on the fourth right rib; duration five months.
20. S., 2½. Capillary nævus of the left breast.
21. M., 51. Scirrhus of the right breast; duration ten months.
22. M., 48. Scirrhus (?) of the right breast; slight discharge of blood from the nipple. There were some enlarged glands in the axilla.
23. M., 68. Scirrhus of the left breast.
24. M., 67. Scirrhus of the left breast; duration two years.
25. S., 26. Chronic infiltration of the right breast.
26. M., 56. Scirrhus (?) of the right breast; duration twelve days.
27. M., 45. Carcinoma of the right breast; duration six months.
28. S., 17. Abscess of a breast; duration twelve months.
29. M., 45. Infiltration of the left breast; probably benign; duration one month.
30. M., 38. Enlarged glands connected with the left breast; duration three months.
31. S., 18. Strumous abscess of the right breast; duration eight months. Also lupus on the left cheek; duration four months.
32. M., 40. Recurrence; right breast had been operated upon for cancer four months previously at Portsmouth.
33. M., 57. Scirrhus of the left breast and axillary glands; duration thirty years.
34. M., 55. Small superficial abscess of the breast.
35. M., 41. Left breast; small, hard, circumscribed infiltration beneath the areola, and discharge of pus from the nipple.
36. S., 18. Benign infiltration of the left breast.
37. M., 47. Recurrent scirrhus; left breast operated upon two years previously at another hospital.
38. M., 41. Benign infiltration of the left breast.
39. M., 33. Mammary abscess; duration five weeks.
40. S., 30. Injury to the right nipple caused by a blow three weeks previously.
41. M., 61. Scirrhus of the left breast and axillary glands; duration eleven years.
42. M., 31. Abscess of a breast.
43. M., 61. Recurrent cancer of the breast; primary growth removed at another hospital.
44. M., 47. Recurrent scirrhus (the size of a walnut) of the left breast; operated upon sixteen months previously elsewhere.
45. M., 39. Induration of the left mamma; some retained milk which could be expressed on pressure.
46. M., 32. Hyperæmia and slight infiltration of the left breast.
47. M., 66. Scirrhus of the right breast; duration eighteen months.
48. M., 58. Scirrhus of the right breast; duration twelve months.
49. M., 58. Scirrhus of the left breast; secondary growth on the neck; duration ten years.
50. M., 40. Scirrhus of the left breast; growth the size of a walnut beneath the nipple.
51. M., 39. Scirrhus of the left breast; duration twelve months.
52. M., 46. Chronic infiltration of both breasts; benign.
53. M., 49. Benign tumour of the left breast.
54. M., 45. Secondary (recurrent?) cancer of the left breast.
55. M., 44. Tumour of the right breast size of a Tangerine orange; duration two months.
56. M., 54. Scirrhus of the left breast and axillary glands.
57. M., 42. Fear of cancer created by a blow on the breast.
58. M., 36. Tumour of the right breast.
59. M., 22. Congestion and infiltration of the left breast.
60. M., 21. Inflammation of the right breast resulting in abscess.
61. S., 21. Globular elastic tumour size of an orange in the right axilla.
62. M., 34. Induration of the left breast; benign.
63. S., 11. Hyperæsthesia of the right breast.
64. M., 42. Scirrhus of the left breast; nipple retracted; eczema of the nipple; duration four years.
65. S., 51. Scirrhus of the right breast; duration six months.
66. M., 53. Scirrhus (the size of a large orange) of the right breast; duration five months.
67. M., 62. Infiltration of the right breast, probably scirrhus; duration one month.
68. M., 43. Scirrhus of the left breast; duration fourteen months.
69. M., 37. Induration of both breasts; enlarged glands in the left axilla.
70. M., 38. Infiltration of the left breast; enlarged axillary glands; duration two months.
71. S., 42. Probably early scirrhus of the left breast; duration five months.
72. M., 29. Adenoma of left breast.
73. M., 44. Tumour the size of a walnut, probably scirrhus, in upper peripheral portion of the left breast.
74. M., 52. Advanced scirrhus of the left breast.
75. M., 38. Scirrhus of the left breast.
76. M., 54. Induration of nodules of the right breast (scirrhus?).
77. M., 44. Small, well-defined scirrhus in the left breast; the axillary glands were enlarged.
78. M., 45. Ill-defined tumour in the left breast.
79. M., 42. There is a red rash over the mammary region; the patient had been operated upon elsewhere six months previously for cancer.
80. M., 38. Operated upon three months previously for cancer; there was now a small granulating wound in the mammary region.
81. M., 36. Adenoma of the left breast; duration two years.
82. S., 51. Scirrhus of the right breast and axilla.
83. M., 67. Ulcerated scirrhus of the left breast; the glands in the axilla were the size of a small apple; duration two years.
84. M., 30. Chronic induration of the right breast; benign.
85. S., 40. Large pendulous breasts; tumour the size of a small Tangerine orange in the right axilla, beneath the borders of the pectoralis major.
86. S., 13. Mastitis.
87. M., 42. Infiltration of the left breast (simple? malignant?); duration twelve months; the glands in the axilla were not enlarged.
88. M., 47. Chronic infiltration of both breasts; benign.
89. S., 47. Adenoma the size of a nut in the left breast; duration twenty years.
90. M., 49. Enlarged glands in the right axilla; tumour removed from axilla eight months previously elsewhere.
91. M., 40. Scirrhus of the right breast.
92. S., 42. Advanced scirrhus of both breasts.
93. M., 46. Sarcoma of the right pectoral fold; enlarged glands in the axilla.
94. M., 45. Eczema of the left nipple.
95. M., 45. Chronic engorgement and infiltration of the left breast.
96. M., 41 Recurrent scirrhus of the left breast; operated upon previously at Exeter.
97. M., 48. Very large cancerous infiltration of the entire right breast.
98. M., 65. Scirrhus of the right breast; organ mobile; the glands in the axilla were slightly enlarged; duration two years.
99. S., 52. Cystic sarcoma of the left breast; too advanced for operation; duration six months.
100. M. Scirrhus of the right breast; the glands in the axilla were enlarged; the patient was about four months pregnant.

Thus the cases of 100 patients, applying for advice under the belief that they were suffering from cancer or malignant disease, were immediately diagnosed as follows: Malignant cases, 54; benign cases, 44; and unclassified cases, 2. The 54 cases of malignant disease are distinguished as under:—

1. Cases of cancer not distinguished as sarcoma and carcinoma	7
2. Cases of carcinoma not necessarily scirrhous	3
3. Cases of sarcoma	2
4. Cases of scirrhus	37
5. Cases of chronic infiltration becoming malignant (patients all over thirty)	5

The forty-four cases in which the diagnosis of cancer was rejected are distinguished as under:—

1. Benign chronic infiltration (four patients under and nine patients over thirty)	13
2. Injury	1
3. Fear	1
4. Eczema of the nipple	1
5. Mastitis	1
6. Cyst	1
7. Precocious development	1
8. Node	1
9. Neuralgia or hyperæsthesia	2
10 Abscess	6
11. Nævus	1
12. Adenoma	7
13. Non-malignant tumours and enlarged glands	8

The two unclassified cases were Nos. 35 and 87. The respective ages of the seven patients affected with cancer (not distinguished as carcinoma or sarcoma) were as under:—Case 80, 38; Case 32, 40; Case 79, 42; Case 13, 45; Case 54, 45; Case 97, 48; and Case 43, 61. The respective ages of the three patients affected with carcinoma (not necessarily scirrhous) were as follows:—Case 27, 45; Case 6, 49; and Case 8, 63. The respective ages of the thirty-seven patients affected with scirrhus were:—Case 4, 34; Case 24, 37; Case 75, 38; Case 51, 39; Case 100, probably under 40; Case 50, 40; Case 91, 40; Case 1, 41; Case 96, 41; Case 64, 42; Case 71, 42; Case 92, 42; Case 18, 43; Case 68, 43; Case 73, 44; Case 77, 44; Case 12, 47; Case 37, 47; Case 44, 47; Case 22, 48; Case 21, 51; Case 65, 51; Case 82, 51; Case 74, 52; Case 66, 53; Case 56, 54; Case 33, 57; Case 48, 58; Case 49, 58; Case 41, 61; Case 67, 62; Case 10, 64; Case 98, 65; Case 47, 66; Case 83, 67; Case 23, 68; and Case 2, 75. Of these, therefore, the youngest was aged 34 and the oldest 75. There were 15 between 35 and 45; 10 between 45 and 55; 7 between 55 and 65; and 3 between 65 and 75 years of age. The respective ages of the two patients affected with sarcoma were: Case 93, 46; and Case 99, 52. The respective ages of the five patients affected with chronic infiltration in which malignant disease had probably begun were: Case 69, 37; Case 70, 38; Case 16, 41; Case 76, 54; and Case 26, 55.

A cursory perusal of the foregoing list of cases is sufficient to demonstrate that the recognition of cancer occurring in the breast is often very easy and sometimes very difficult. The points upon which a differential diagnosis should be based are found in the text-books and in other medical and surgical literature. Scirrhus, as being by far the most common variety of cancer which attacks the breast, is that which merits most attention. A solitary neoplasm of the size of a hen's egg, not deeply embedded in abundant mammary tissue, and accompanied or unaccompanied by glandular implication, will not present difficulty; but there is a large group of scirrhous cases in which the disease has arisen out of antecedent infiltration of years' duration, and is appearing most insidiously at various points scattered throughout the unhealthy organ. There may be some retraction of the

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nipple, and cord-like processes may be felt buried in the mammary tissue. The consistency of the breast varies in different individuals, and its objective quality also varies with the degree of adipose tissue superjacent. Both breasts may present characters strongly suspicious of incipient scirrhus, but if both organs were removed the microscope might fail to detect evidence of scirrhus in either. An exploratory incision may be made and a fragment of suspected tissue removed and examined microscopically; but, though the result be negative, cancer may still exist in other parts of the organ. If surgeons feel unable to say definitely whether in any case cancer exists or is absent, I really think the responsibility of choosing the course to be pursued should, after full explanation, be left entirely to the patient.

"Cancer of the breast rarely occurs in a woman under forty," remarked the late Sir William Gull to me one day; "now, the breasts are no good to any woman over forty. If every woman at forty were to have her breasts removed cancer of the breast would be almost unknown. When the breast has been removed the organ is non-existent and cancer cannot attack it." All this is true and strict logic; but where are the candidates for Sir William Gull's prophylactic treatment? *Certa pro incertis non relinquenda.* It is now generally admitted that, if taken in time, cancer of the breast can usually be eradicated completely by excision of the organ. That is a certain method of treatment, but, though attended by little danger, most repugnant to the patient. A woman will desire to try every known treatment, no matter by whom recommended, before submitting to the loss of a breast and to a cutting operation. Can cancer of the breast be cured by electricity or even arrested for more than a short period, and is this method devoid of danger?

As to the duration of cancer from its commencement to its termination by the death of the patient—when its course is uninterrupted by art—the period of duration varies considerably, not only by reason of the variety, but also to some extent by circumstances the nature of which is not yet understood. In the preceding list the statements as to the duration of the disease before my interviews with the patients mean nothing more than their own ideas, sometimes approximately correct and sometimes very wide of the mark. In many of the cases the duration of the disease before it had attained the magnitude presented to me has been considerably understated. A scirrhous neoplasm will take at least months from its earliest origin before it can attain dimensions appreciable to the surgeon's finger, and longer still before it can evoke symptoms recognisable by the patient. The duration of the antecedent precancerous period may be stated by years. Case 33 is important and exceptional. It is that of a woman fifty-seven years of age, who gave a definite statement that she had "had a lump since a girl seventeen years old, when she had a blow" on the left breast. Yet after a lapse of thirty years the disease was not too far advanced for operation. Compare this case with Case 66, and let it not be inferred, when scirrhus first appears, that a delay of thirty years before resorting to operation is advisable. The procrastination which occurred in Case 33 (where the disease ran an abnormally slow course) only shows more eloquently than words can express it how much the use of the knife is dreaded. The case, however, illustrates the undoubted fact that scirrhus may run a very long course before it causes death, and that a scirrhous neoplasm may attain considerable dimensions before it creates distressing symptoms or injury to the general health. In view of these circumstances, whilst it is true that operations of magnitude are now successfully and constantly performed upon octogenarians, yet when women of very advanced life become affected with scirrhus of the breast it may be quite an open question whether removal of the organ should be undertaken or the patient be permitted to be released by death, though unrelieved by surgery. A partial excision of the breast skirting the scirrhus is to be strongly deprecated, as such an operation is sure to be followed by recurrence. It is with some reluctance I add—because I believe it is already recognised by the profession—that the prognosis of scirrhus of the breast, if the case be treated by early and liberal excision of the gland and complete removal of all infected tissues, lymphatic and otherwise, is most favourable, and that the percentage of recurrences should be exceedingly small. It should, therefore, be remembered that, except in the case of cancer of small dimensions, no attempt should be made to limit the width of the preliminary incisions, in order that the cutaneous margins may be approximated and the wound completely closed. If this course be adopted too little of the infected integument will probably be removed and recurrence follow. The oval should usually be wide—too wide for its margins to be approximated—the intervening gap being allowed to close by granulation, and cicatrisation promoted by skin-grafting. The view is now probably acceptable that even where the disease is so far advanced as to necessitate the removal of considerable portions of the pectoral muscles, besides complete clearance of the axillary space, yet the danger to life from such an operation is small and the prospect of non-recurrence considerable.

Seymour-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

REMOVAL OF THE WHOLE EPIPLOON FROM THE SAC OF A STRANGULATED HERNIA; RECOVERY.

BY W. J. COLLINS, M.S. LOND., F.R.C.S. ENG.,
FELLOW OF THE UNIVERSITY OF LONDON.

A MAN aged thirty-eight was admitted under my care into the London Temperance Hospital on April 24th, 1895. Although otherwise a healthy man, he had suffered from a reducible right inguinal hernia for eighteen months, for which he had worn a truss. Two days before his admission, when walking home after a heavy meal, the truss suddenly broke and the hernia came down with a rush. He was unable to effect reduction, began to vomit, and experienced great abdominal pain. On admission he was found to be suffering from frequent green vomiting; no motion had been passed for two days, and his temperature was 98·8° F. The abdomen exhibited partial distension and an accentuated "mesenteric" line; the right side of the scrotum was distended to its maximum capacity by a dull, slightly elastic, irreducible swelling ten inches in circumference, without impulse, and passing into and distending the external ring. He was placed under chloroform, and, taxis being unavailing, I exposed and opened the hernial sac. A little fluid escaped, and I was confronted with an enormous mass of omentum in fringe-like laminæ occupying more than seven-eighths of the sac. At the upper part, and concealed by the omentum, there was a knuckle of deeply congested and slightly shaggy small intestine. After examination this was reduced. To reduce the omentum was a task that might give pause to Sisyphus; moreover, inspection showed that in parts there was evidence of bruising, which militated against the attempt. To deal with such a mass piecemeal appeared to me to be less satisfactory than to treat it *en masse* as a pedicle, so I tied it securely with the largest-sized silk and cut off what appeared to be practically the whole, or nearly the whole, epiploon. I thought it well to fix the pedicle in the ring by a few sutures. I then dusted on iodoform and sutured the wound without drainage, dressing with cyanide gauze. On the 29th the wound was dressed for the first time. The temperature had not risen above 100°; there was no sickness, and flatus was passed. The wound was doing well, with the exception of a little pus around one of the upper suture holes. By May 1st some eczema had appeared around the wound, and also some swelling about the scrotum; the patient's general condition, however, was excellent. On the 7th the bowels were acting, and the wound was healing, excepting at the upper end; and on the 14th the deep suture came away, the wound closing up. On May 20th the patient was discharged with a firm cicatrix, he being quite well.

When seen in August last the patient was in good health, and there was no hernial protrusion. An examination of the removed omentum showed it to be practically the whole epiploon. Its central cavity was easily demonstrable.

Albert-terrace, N.W.

NOTE ON A CASE OF PLACENTA PRÆVIA.

BY R. A. BAYLISS, L.R.C.P. LOND., M.R.C.S. ENG.

ABOUT midnight on June 16th, 1895, I was called to visit a married woman, the messenger (her husband) informing me that she was "flooding badly" after having been in labour

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some hours. On my arrival, shortly after 1 A.M., at the house, which was distant about six miles, I found the patient, a pale but well-nourished woman, in active labour, the pains being frequent and strong. The nurse in attendance stated that to all intents and purposes the labour had gone on normally until about two hours previously, when profuse hæmorrhage had occurred. Since that time the pains, though coming on at short intervals, were ineffectual in bringing about the birth of the child. She showed me an ordinary chamber utensil very nearly full of blood, and said that she had emptied away a like quantity. On examination the os was found to be fully dilated and distended anteriorly by a tense bag of membranes, while posteriorly a spongy mass could be felt, which was evidently the placenta. There appeared to be no definite presentation, but the finger, passed high up, revealed the presence of portions of the limbs of the child in the vicinity of the os. The patient seemed to be in great distress, tossing herself about on the bed, and her pulse was rapid and feeble. After rupturing the membranes I introduced the hand (previously antiseptically anointed) into the uterus, with some little difficulty seized the left foot, which I brought down into the vagina, and eventually delivered her of a stillborn premature child. The placenta was expressed with ease, the uterus contracted well, and there was no subsequent hæmorrhage. At the expiration of twenty-four hours she had a moderate rise of temperature. The uterine cavity was therefore douched with a 1 in 4000 solution of perchloride of mercury, and on the following day the temperature was normal. A day or two later she had a troublesome attack of diarrhœa, which, however, was effectually controlled. After this time, though very anæmic, she gradually gained strength and about two months later went to a seaside convalescent home.

The chief point of interest in this case seems to me to be due to the fact that the membranes remained intact for so long a time, thus acting, as it were, like a hydrostatic plug to the os and thereby preventing more serious and possibly fatal hæmorrhage.

Spondon, Derbyshire.

PERFORATION OF THE AORTA BY A BONY OUTGROWTH FROM THE SIXTH RIB.

By E. A. LIGHTBURNE, L.R.C.P., L.R.C.S. EDIN.

A REMARKABLE and uncommon cause of death was disclosed at a post-mortem examination made by me recently on the body of a boy aged twelve years, who had died very suddenly without any previous illness. All the organs were perfectly healthy with the exception of a small portion of the left lung lying over the neck of the sixth rib on the left side. Further examination showed that a bony outgrowth from two to three inches in length sprang from the anterior surface of the sixth rib at a point between the neck and the tuberosity. This spicule had penetrated the lung and the thoracic aorta, causing almost instant death by hæmorrhage into the left pleura. The outgrowth was very firmly attached to the rib and had the appearance of having been there since birth. At the spot where the lung had been pierced there was hardening of the tissue, but no sign of abscess.

Bow-road, E.

NOTE ON A CASE OF HEAVY FŒTUS.

By D. J. F. BENNETT, M.B. IREL.

MR. W. WOODWARD'S interesting clinical note in THE LANCET of Dec. 14th, 1895, reminds me of a case I attended in August, 1893. I was then acting as locum tenens for my friend, Mr. C. J. McFarlane of Stoke Newington, and remember the case distinctly, but did not at the time think it worth reporting, as others were on record where the child had been much heavier. The labour was proceeding very slowly, and I applied the forceps, but removed them after some time, as the perineum seemed to be in danger of giving way. Things remained *in statu quo*, however, and I found it necessary to reapply the instrument. The shoulders gave some trouble, and it was only with difficulty I could get my finger within the axilla. It was a male child, and was, unfortunately, stillborn. I had it carefully weighed and found it to be just over 14 lb.; I regret not having taken the length. The perineum was in no way lacerated, and the mother made a very good recovery. She was a slight woman, about 5 ft. 4 in. in height and about twenty-seven years of age; it was her third pregnancy. The father was aged about thirty-three and well over six feet in height. Many of the readers of THE LANCET will be aware that, according to the statistics of over 8000 cases given in Smellie's "Midwifery," the greatest weight of a new-born child was 13¼ lb.

Hillingdon-street, S.E.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

COLONIAL HOSPITAL, GIBRALTAR.

A SUCCESSFUL CASE OF TREPHINING OF THE SKULL FOR TRAUMATIC EPILEPSY AND HEMIPLEGIA; REMARKS.

(Under the care of Dr. WILLIAM TURNER.)

IN cases of traumatic epilepsy the results of operation have been decidedly encouraging, and in many instances entire relief has been afforded. Mr. Chiene says[1] that he has only seen good arise from operation in cases of distinctly traumatic origin, particularly in those in which the injury involved motor areas near the fissure of Rolando. He considers that future improvements will be mainly in the technique of the operation and in more extensive removal of bone. The sufferers from traumatic epilepsy can lose nothing in the present day by submitting to an exploratory operation, for the procedure is perfectly safe with modern precautions, will not make the patient worse, and may cure. Recurrence of the epilepsy after operation,[2] when a portion of brain has required removal, is in some instances, no doubt, due to the cicatrix, which is again produced, but from the conditions present the scarring is likely to be much less marked than that following the injury itself. Putting together the statistics of Laurient, Agnew, and Starr, we find a record of 201 cases of epilepsy treated by trephining, the large majority being evidently traumatic. Of these, 71 are said to have been cured, 63 improved, 41 not improved, 2 were worse after operation, and 14 died. In the remainder the result was doubtful. We cannot enter into a consideration of the various sequelæ to injury which may cause epilepsy, they are numerous. The following is an example of successful operation where an unusual condition was present.

The patient was a seaman aged thirty-nine years, a native of Las Palmas (Grand Canary). He was admitted to hospital complaining of partial motor paralysis and numbness in the left half of his body, face, and in his left limbs, of severe headache, constant drowsiness, defective eyesight and memory, and impairment of speech; epileptiform convulsions occurred frequently. As regards his history, four years previously, when in Cuba, he was struck on the head by a large iron crane-hook and was insensible for seven days, having sustained an extensive depressed fracture across the vertex of his skull. On being restored to consciousness he was told that during these seven days he had had frequent severe convulsions, his body having been maintained for lengthened periods in a state of tonic spasm. The convulsions subsequently recurred at intervals and were of the following nature. The spasm commenced in the left forearm, quickly extending up to the shoulder and down the side to the left leg. It then attacked first the left and then the right side of the face, when the patient fell to the ground insensible. This sequence of events was accurately observed in each of the attacks. The patient could foretell the onset of an attack several minutes before its occurrence, which generally allowed him time to summon assistance. The frequency and severity of the fits steadily diminished for a

[1] Edinburgh Medical Journal, 1894.
[2] Erichsen: Science and Art of Surgery, tenth edition, vol. i., p. 782.

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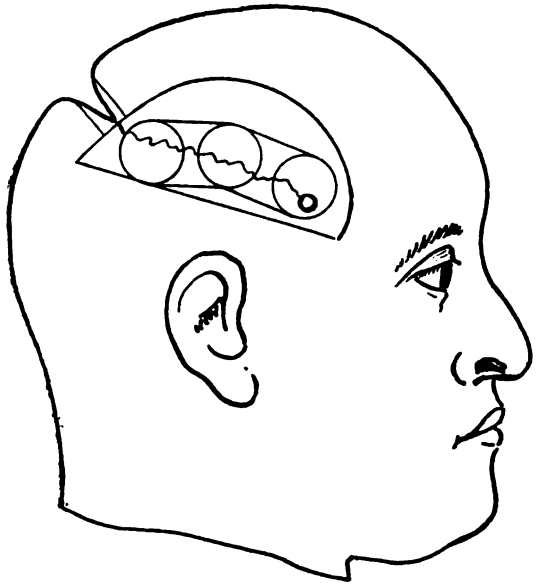
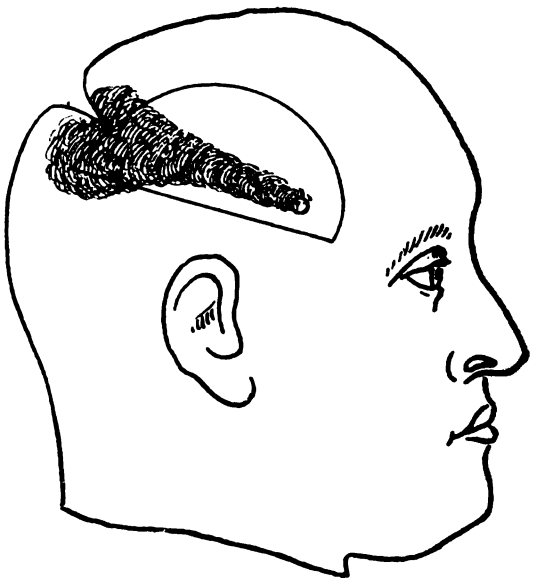
time. At first they recurred twice daily, or oftener, with complete unconsciousness; but for the previous six months the patient had been attacked about every eight days with clonic convulsions in the parts above mentioned, preceded by noise in his head, but without complete loss of consciousness or his falling to the ground. The loss of power in his left limbs at the time of his admission to hospital was very marked indeed. His gait was shuffling, and the grasp of his left hand was less strong than that of his right by at least two-thirds. His mental faculties were greatly blunted, being suggestive of a form of dementia; indeed, he was said to have made an attempt on his own life during a recent voyage. On examination of the head there was found at the vertex of the skull a deep transverse furrow admitting the tips of three fingers to a depth of half an inch. It extended horizontally across the head a little above the lambdoidal suture, five inches above the occipital protuberance. It was two inches and a half in extent, and was almost symmetrically placed as regarded the two sides of the head. The scalp was inverted over its margins, and hair grew deeply in the cleft. At or near the inferior angle of the right parietal bone a small discharging sinus was discovered. A probe passed into this sinus took a direction backwards, upwards, and to the left, inside the cavity of the skull, towards the depression at the vertex, penetrating a distance of four inches. Evidence of dead bone was thereby elicited.

FIG. 1.



Examination of the body showed that the muscles of the left arm and leg and of the left side of the face were decidedly more flabby than those on the right side. The circumference of the left calf was a quarter of an inch less than that of the right, and the same was the case as regarded the arms. The reflexes were equal on the two sides and were apparently normal. The palate was normal in appearance, but the tongue was protruded a little to the left. There was defective movement in the muscles of the left angle of the mouth, causing a hissing in speech. Hearing, taste, and smell were apparently normal. Vision was slightly hypermetropic, and the patient stated that he was unable to read, because he could only see single letters, not a whole word at a time. At his urgent request operation was resorted to. The whole head having been shaved and carefully prepared beforehand, a crescentic incision was made in the scalp commencing one inch in front of, and one inch below the level of, the sinus opening (see Fig. 1). It was carried upwards over the parietal region, and, curving round, terminated within three inches of the occipital protuberance. It crossed the line of depression in the bone at right angles close to its right extremity. The flap so marked out having been reflected downwards over the ear, a fissure in the parietal bone was discovered extending diagonally across it from the right extremity of the depression to the position of the sinus opening near the anterior inferior angle of that bone. Two other incisions in the scalp, at right angles from the crescentic one, were now made along the edges of the depression (see Fig. 1), and the scalp was so lifted, upwards and downwards, as to expose freely the whole of the depression in the bone. The periosteum was next reflected from both sides of the fissure. Three trephine openings were made with a one-inch trephine in the parietal bone along the course of the fissure, and the portions of bone intervening between these openings were cut away with saw and pliers (see Fig. 1). It is estimated that four and a half square inches of the bone were in this way removed, freely exposing to view the entire track of the subjacent sinus. The latter was found to terminate posteriorly in a large abscess cavity containing a loose sequestrum of some size of the inner table of the skull. In addition to the sequestrum the cavity contained a quantity of soft muco-purulent material. These were carefully cleared away, and the interior of the cavity and of the sinus track freely scraped with a Volkmann's spoon. The dura mater was not opened as no evidence of suppuration beneath it presented itself. The abscess cavity (see Fig. 2) was thoroughly washed out with sublimate solution and the periosteum was stitched over with fine catgut, none of the pieces of bone removed having been replaced. A rubber drainage-tube was inserted into the cavity, where the sequestrum had previously lain, and the scalp flaps were

FIG. 2.



accurately stitched up with silk. The after-progress of the case was entirely satisfactory. From the second day onwards the patient experienced complete relief. On the sixteenth day after operation he was allowed to sit up, and he then declared that he had equal strength in both arms and legs, that he was free from headache, and that he had had no return of the epileptiform attacks. He was in excellent spirits, presenting a totally different aspect from the torpid demeanour he exhibited on his admission, and he expressed himself as being deeply grateful for the relief afforded him by the operation. He was discharged from the hospital two months after the operation, having been employed in useful work in the wards for some time previously. Before leaving he assured Dr. Turner that he had completely regained his original vigour and inclination for work. His vision was good and he could read well. His speech was no longer aphasic, the grasp of both hands was equally strong, his gait was free from defect, numbness had disappeared, his intelligence was sharp beyond the average of his class, and there had been no recurrence of the convulsive attacks. He returned to Las Palmas in order to resume his active duties as a sailor.

Remarks by Dr. TURNER.—Cases similar in nature to the one under consideration will present themselves from time to time in the practice of most maritime hospitals—cases, I mean, pre-eminently of seamen who have sustained injury to

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the head in the exercise of their calling, and who have subsequently become epileptic, and so unfitted for further employment at sea. Hitherto I have not ventured to interfere surgically for the radical relief of such conditions, but have for the most part contented myself with the employment of medicinal remedies for their amelioration, or have passed them on with a recommendation to the care of a recognised specialist in this department of surgery. In the present case, however, operation was urgently called for. The patient had no means of obtaining the services of a specialist, and he declared that his life was well-nigh intolerable in consequence of his affliction, his disabled condition rendering him totally unfit to earn a livelihood in any capacity. Under such circumstances no surgeon acquainted with the modern development of cranial and cerebral surgery, as practised at the hands of such operators as Horsley and Macewen, and having at his disposal the means for maintaining wounds in an aseptic condition, would feel justified in withholding his hand and denying his patient the chance of possibly permanent relief by operation. It is impossible as yet to predict whether an absolute cure can be claimed in this case. A long period must elapse (five years according to Horsley) before it can be said that a recurrence of epilepsy may not take place in such cases. Yet the focus of disease has been removed, and it may at least be hoped that the secondary changes which must have been set up in the brain cortex during the four years of existence of the irritant may also to a great extent be restored to a healthy state. The case was one in which, apart from the expressed desire of the patient, operative interference was eminently justified. The conditions were such that no question remained as to the localisation of the lesion within the skull. The site of the lesion also was to all appearance easily accessible, and the area effected, though extensive, was most probably limited to parts readily exposed by the trephine. One disturbing element was the possibility that the longitudinal sinus might be injured in the attempt to remove the whole of the depressed bone, for the fact that the convulsions affected in their course the right as well as the left side of the face lent probability to the suspicion that the irritant cause might lie partly in the right and partly in the left hemisphere, and so involve the longitudinal sinus running between them. Wounds of the longitudinal sinus, however, as I have found from experience of several cases, are less serious, and the attendant hæmorrhage less difficult to control than *a priori* one would be led to expect. There was also in this case the possibility that abscess formation might be discovered affecting the brain substance either in the form of diffuse purulent infiltration of the cortex (disseminated abscess) or as an encysted accumulation of pus. Each of these contingencies had to be borne in mind in deciding as to the risks and method of operation. As matters turned out, however, the abscess cavity was found to be limited to the right side of the head, reaching so close to the middle line as to expose, but not to involve, the longitudinal sinus, and, so far as was ascertained, did not in any way, except by pressure, involve the substance of the brain. Referring to the literature of trephining for traumatic epilepsy, one finds that great diversity of opinion exists amongst writers as to the advisability of operative interference and as to the results to be anticipated from such operations. Keen of Philadelphia states[3] that in cases of traumatic epilepsy the results of operation have been on the whole very encouraging. He estimates that in perhaps 25 per cent., more or less, the result will be a practical cure. Hayes Agnew[4] records fifty-seven cases of trephining for traumatic epilepsy. Of these forty-one recovered from the operation, thirty-two of these experiencing temporary relief, and nine obtaining no benefit. He concludes that trephining for traumatic epilepsy promises only palliation at best. In a paper on the Surgical Treatment of Epilepsy by Gerster and Sachs of New York,[5] a detailed account is given of ten operations for the relief of epilepsy, with the result that not a single cure was claimed. They maintain that if operation is undertaken in cases which have run a course of many years, removal of the initial disease will have little effect on the general sclerosis which will have been established, and which keeps up, as it were, the epileptic habit. They recommend "that the only way to cure epilepsy is to prevent its development by prompt interference to remove the focus of disease before secondary changes have been set up." The question of chief practical importance which a case such as the above suggests for discussion, and on which I venture to offer some remarks, is—When, under what circumstances, and in what varieties of fracture of the skull is operative interference called for, and under what conditions may an expectant line of treatment with propriety be adopted? In no department of surgery has the introduction of the aseptic treatment of wounds more widely influenced our practice than in this, and thus it will be found that the rules so ably formulated and taught in former years are no longer suitable to guide the surgeon. In considering this subject it is necessary not only to bear in mind the different varieties of fracture of the skull which are met with—the simple, the compound, the comminuted, the punctured, the linear, and the depressed—but also to note their position in relation to important intracranial blood-vessels and nerve centres of the brain cortex—whether the fracture is recent or of old standing, whether single or multiple, whether or not accompanied by brain symptoms, and, most important of all, to observe what the nature and severity of these symptoms may be. 1. All authorities are agreed that linear fractures or fissures of the skull, whether simple or compound, if unaccompanied by symptoms of irritation or compression of the brain, should not be interfered with primarily, but call forthwith for operative treatment if these or inflammatory symptoms should subsequently supervene. 2. With reference to depressed fractures unaccompanied by symptoms the practice of the present day appears to be distinctly at variance with that of former times. The old rule was that simple fractures of the skull with depression and without symptoms should be left alone, and even where comminution of the bone coexisted with depression, provided there were no symptoms, non-interference was the policy adhered to. The dictum of Hayes Agnew[6] probably expresses the view of most operating surgeons of the present day—namely, "that *all* fractures of the skull attended with depression, however slight, and entirely independent of symptoms, should, in view of the late after effects, be submitted to the trephine." This rule does not, of course, include those not uncommon cases of spoon-shaped depression in the skulls of young children, where the bones are merely bent after the fashion of greenstick fractures in the long bones, and are so pliant that in the majority of cases they recover their original shape within a very short time without the aid of any treatment. 3. In cases of compound depressed fracture without symptoms the rule to operate admits of no compromise, and many of the older surgeons were as rigid observers of it as modern operators. In cases undoubtedly of this nature patients have been known to recover spontaneously without any ill-effect remaining; indeed, I have notes of a case of punctured and depressed fracture of the vertex which came under my notice some ten years ago, where brain matter escaped freely from the wound, and where the probe was passed for some distance into the brain in search of foreign substances, and yet the patient recovered perfectly without any operation having been resorted to, and is still in good health. But the risk of subsequent mischief—epilepsy, insanity, pyæmia, &c.—being developed even at remote periods in these cases, with the mental unrest thereby occasioned to the individual for the remainder of his natural life, renders the immediate operation of trephining strongly to be insisted on. 4. Every case of fracture of the skull accompanied by brain symptoms, paralytic or irritative, has to be dealt with on its own merits, and it would be impossible to lay down any definite rules for the management of such cases. Generally speaking, if the symptoms are not severe and show evidence of yielding, the case is treated on the same principles as those already indicated for fractures unaccompanied by symptoms. If, however, symptoms of pressure or irritation show no disposition to yield after trial of the expectant plan, or if they tend to increase in severity, then, even apart from the character of the fracture, and all other considerations being set aside, it is the surgeon's duty, if he can reach it, to expose by trephine or otherwise and to remove if possible the irritant cause from which these symptoms appear to originate. A thorough knowledge of localisation of the different brain centres (so far as they are known) here becomes indispensable, for it will sometimes happen that the very existence of a fracture is revealed mainly by reference to the symptoms, and a guide to the exact seat of fracture will be furnished by those

[3] Medical News, Nov. 1st, 1890.
[4] New York Medical Record, Sept. 26th, 1891.
[5] American Journal of the Medical Sciences, November, 1892.
[6] Loc. cit.

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symptoms. 5. There is yet another class of cases to which I would call attention—namely, those in which there is a history of severe injury to the head, and where there are marked and definite symptoms of compression of certain motor areas of the brain, but where no fracture of the skull can be demonstrated. In such cases obviously one of two conditions exists: either a fracture of the skull implicating the motor area has taken place, although it cannot be detected, or a hæmorrhage has occurred in or near the motor area or tract. The history of the case may or may not assist the surgeon in arriving at a correct diagnosis, but the point of importance to him is—How are such cases to be dealt with? If the pressure be due to blood-clot, and there is no evidence of the extravasation extending, then the expectant method will be applicable for a time; but if the symptoms point to a gradual increase of extravasation I see no reason why a trephining operation should not be resorted to in the hope of securing the injured vessel and relieving pressure. If, on the other hand, an undetected fracture should be the cause of the symptoms, and amelioration of these does not speedily set in, trephining over the indicated motor area will be not only permissible, but will in all probability be followed by the happiest results.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Accessory Tumour of the Thyroid Gland.—Rupture of Splenic Artery into Stomach.—Gummata of Brain.—Interstitial Hernia.—Lichen Scrophulosorum.

AN ordinary meeting of this society was held on Jan. 7th, Mr. BUTLIN, President, being in the chair.

Mr. A. E. BARKER related the sequel to a case of Accessory Tumour of the Thyroid Gland, the clinical history and structure of which he had already recorded. The tumour commenced to grow above the left clavicle in 1880, and in 1889, when the patient was operated upon, he was fifty years of age. The tumour occupied the whole of the left side of the neck, from the mastoid above to the clavicle below; it extended beneath the trapezius behind, while forwards it passed under the jaw and transgressed the middle line of the neck, pushing the larynx with the thyroid gland to the opposite side. The skin covering it was thin and tense, and the growth was filled with cysts which varied in size from that of a marble to that of an orange. It was firmly fixed to the under surface of the sterno-mastoid, but this might have resulted from the many electrolysis punctures to which the growth had been subjected. There were no enlarged lymphatic glands. The first operation was performed in 1889 and much cystic and solid matter removed, and the histological details were described at the time The patient was now in excellent health, though there had been four operations for recurrence. The recurrent growths appeared to be limited to the glands of the neck, and they reproduced the structure of the original growth. He thought there was no doubt that the primary growth originated in an accessory thyroid gland, though it might have started from the border of the thyroid gland and gravitated downwards. The repeated recurrence in the lymphatic glands indicated a mild degree of malignancy; but perhaps, on the other hand, these multiple secondary deposits were buds or germs of the original growth, which had escaped removal. Another view which he put forward was that he had possibly removed the whole thyroid gland at the first operation, and that these secondary masses were to be regarded as remnants of gland which had undergone a compensatory hypertrophy to replace the removed thyroid gland rather than as dissemination of a primary malignant growth.—Dr. CYRIL OGLE showed a Cystic Accessory Thyroid Gland which he had removed post mortem from a woman aged fifty-five, who died from an accident. The tumour measured one inch and a half by three-quarters of an inch, and lay between the top of the sternum and the trachea. There was in addition irregular enlargement of the left lobe of the thyroid gland. On section the smaller mass presented the characteristics of thyroid gland, but without the colloid contents.—Mr. SHATTOCK mentioned the fact that papilliferous ovarian cysts sometimes ruptured into the peritoneum and produced a crop of papillary formations derived from the primary growth, but which were not malignant. Mr. Barker, as a result of the first operation, might possibly have infected his wound in this way. The multiplicity of the secondary growths was against the accessory thyroid gland hypothesis.—Dr. NEWTON PITT referred to the case of a woman who had a scarcely noticeable enlargement of the thyroid gland, and from whom a tumour of the eye was afterwards removed, and others recurred in the scalp and skin, all presenting the characteristics of thyroid tissue. The viscera did not appear to be involved so much as the skin and glands.—Mr. JACKSON CLARKE had examined a case a year ago for Mr. Ernest Lane. The specimen was that of a lymphatic gland lying beneath the sterno-mastoid muscle and showing a growth with tubular and papilliferous processes. The structure of these secondary growths suggested that the thyroid gland was of racemose structure, as Virchow had held.—The PRESIDENT referred the specimens to the Morbid Growths Committee. He had never seen multiple growths produced as the result of operation. There was a class of tumours belonging to the thyroid gland in which secondary tumours of similar structure were produced. One of the first was brought before the Pathological Society by Mr. Henry Morris, and in this secondary growths occurred in the skull and other bones. A photograph of the patient showed that she had an enlarged thyroid gland. Further cases had been recorded by Mr. Warrington Haward and others.—Mr. BARKER, in reply, said that the tumour shelled out completely, and he did not think that the wound could have been infected at the original operation. As he had already said, the adhesion to the sterno-mastoid muscle might have been due to the repeated electrolysis punctures.

Mr. F. C. ROBINSON showed a specimen of Rupture of the Splenic Artery into the Stomach, associated with Aneurysm of the Left Ventricle of the Heart. The patient, a woman aged fifty-seven, died in Colney Hatch Asylum after having suffered from melancholia with suicidal tendencies for six years. A fortnight before death, having a high temperature, she was sent to bed, and it was supposed that she was suffering from pneumonia. Six days later she vomited a large quantity of blood. Four days before death this was repeated, and during the last attack she died. Post mortem a large ulcer was found on the posterior superior wall of the stomach, and in the base of it was an opening into the splenic artery, which was very atheromatous. There was also present an aneurysmal dilatation of the left ventricle of the heart, which had been unsuspected during life; it contained a considerable quantity of laminated clot.—Mr. JACKSON CLARKE said that the gastric ulcer had evidently become adherent to the artery, into which it had opened later. The history suggested the advisability of opening the stomach in some cases of hæmorrhage.

Mr. C. F. BEADLES showed a specimen of Gummata of the Brain. The patient was a soldier aged twenty-eight who had been admitted into Colney Hatch Asylum in a state of acute mania. He had been invalided home from India four years before for enteric fever. While in India he had contracted syphilis, and the scars over his back, arms, legs, and feet showed that he had suffered very severely from the disease. He was very weak and much emaciated, but there were no signs of lung or heart disease. His mental state had existed for two months, and confinement in a padded room had been necessary. He was incoherent, extremely restless, and had taken but little food for some days. He had suffered from delusions. After his admission it was necessary on several occasions to feed him with an œsophageal tube. Large doses of chloral and bromide of potassium produced no effect, and one grain of hyoscyamine hypodermically gave but slight rest. During the next month he gradually gained strength, but there was no sign of mental improvement, and though he was generally weak there was no paralysis. Three months after his admission he was attacked with what seemed to be a hæmorrhagic seizure; he suddenly sank and became unconscious, but recovered within half an hour and showed no signs of paralysis. One hour later he again relapsed into unconsciousness, the pulse being very slow and intermittent, the right pupil widely dilated, and the left contracted to a pin's point. He died fourteen hours from the onset of the attack without again recovering consciousness. Post mortem the membranes of the brain were found to be

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only slightly thickened and the basal vessels fairly healthy. About the centre of the right frontal lobe, near its under surface, was a hard gummatous mass which readily separated from the brain substance and was firmer and of darker colour than the brain tissue, which was softer than natural throughout. In the lower part of the left hemisphere there was discovered a second tumour of the same size and appearance as the first. It was situated at the lower and inner part of the lenticular nucleus, on a level immediately in front of the optic commissure, and was closely connected with the middle cerebral artery. Microscopically the growth proved to be a syphilitic granuloma. Notwithstanding the frequency of syphilis as a cause of insanity, gummatous tumours in the brain had been found post-mortem excessively rarely. He had searched the post-mortem notes recording the conditions present in the brain of over 4000 insane persons, and in only five instances had gummata been found. Of forty other instances, in which all varieties of intracranial growth were referred to, it was possible that a couple were of syphilitic origin. It should not be forgotten that gummata of the brain might disappear under treatment, but from the above figures it was highly probable that syphilitic cerebral growths were even rarer than was usually supposed, the symptoms commonly regarded as pointing to their presence being in fact due to changes in the cerebral vessels and membranes.

Mr. JACKSON CLARKE showed and described a specimen recently added to the museum of St. Mary's Hospital and comprising the Anterior Part of the Right Os Innominatum with the corresponding Peritoneum, &c. Below the position of the internal ring was an aperture in the peritoneum as large as a farthing and bounded by a thick fibrous ring. The aperture led into the cavity of a sac as large as the finger of a glove. The sac lay in front of the peritoneum at the side of the bladder, and was directed downwards along the vas deferens. The specimen had been removed post mortem from a stout man aged forty-six, admitted to St. Mary's Hospital under Mr. Norton with pain and distension of the abdomen. The patient said he had been ill for two days and had vomited twice. There was no external tumour. Abdominal section was decided on, but immediately the patient had been placed on the table an attack of stercoraceous vomiting began, and in the course of the attack he became suddenly collapsed and, in spite of artificial respiration, &c., did not rally. Post mortem the diaphragm was found to be pushed up to the level of the third space in the mid-clavicular line on each side by distension of the stomach and small intestines. The lungs were extremely emphysematous, and the lower lobes were partially collapsed. The heart was fat-laden, and its right ventricle greatly dilated and full of liquid blood. About two inches of ileum were found in the sac, and, though nipped by the fibrous neck, were readily withdrawn. There was a depression in the peritoneum opposite the internal ring, and fibrous prolongations from the depression passed into the inguinal canal, showing that the remains of the vaginal process were undisturbed, and pointing to the hernia having been of the femoral rather than of the inguinal variety. There was no evidence that a hernia had recently occupied either the crural or the inguinal canal. Apparently the truss had gradually pushed the sac back into the peritoneal cavity and had so prepared the way for the chain of events mentioned above. Death appeared to have been due to syncope, for no vomit was found in the air-passages.—Mr. RAYMOND JOHNSON thought that the specimen might be one of the forms of interstitial hernia. The sac occupying the inguinal canal had become obliterated, and the pro-peritoneal pouch formed the sac shown in the specimen.—Mr. W. M. ECCLES asked whether the sac was adherent to the surrounding tissues or appeared to be recently dislocated, and also whether there was a history of any recent swelling in the inguinal or femoral regions.—The PRESIDENT said it would be interesting if they could bring together a series of specimens of hernia after operation. He himself had operated for the radical cure of hernia last May, the patient had recently died from tuberculous meningitis, and a preparation had been made to show the result of the operation.—Mr. STANLEY BOYD said he should like to see post-mortem evidence of the cure of hernia by truss.—Mr. CLARKE, in reply, said that there had been no hernia down for twenty years.

Mr. JACKSON CLARKE also showed sections of lesions from a typical case of Lichen Scrophulosorum. The lesions had been removed from a child a few months old, whose trunk and limbs were covered with papules, for the most part flat-topped, and like those of the small papular variety of lichen planus. A week or two after the onset many of the lesions became pustular, and, as happened in some cases of eczema, small abscesses formed in the subcutaneous tissue. After opening one of these abscesses a portion of skin bearing three or four papules was found to require removal. The skin was hardened in sublimate solution, with a view to determine the genesis of the abnormal elements. One typical flat papule was found to have formed at the apex of a papilla independently of any follicle. The altered cells had pushed apart two interpapillary pegs of epithelium and consisted wholly of swollen endothelial and connective-tissue cells, without any leucocytic infiltration. The histology was quite compatible with the lesion being truly tuberculous, and Mr. Clarke asked physicians present whether any lesions of the skin had been noticed as part of a general tuberculosis. The patient improved on cod-liver oil and iron. For permission to publish the case he wished to thank Mr. Malcolm Morris.

The following card specimens were shown:—

Dr. KANTHACK: Glandular Tumour of Lip.

Dr. P. WEBER: (1) Obliteration of Coronary Artery (? Congenital); (2) Section of Coronary Artery from case of Angina Pectoris.

Dr. CYRIL OGLE: Accessory Tumour of the Thyroid Gland.

OBSTETRICAL SOCIETY OF LONDON.

The Influence of the Removal of the Ovaries on Metabolism in connexion with Osteomalacia.—The Effects of Lactation on Menstruation and Impregnation.—Exhibition of Specimens.

A MEETING of this society was held on Jan. 1st, Dr. F. H. CHAMPNEYS, the President, being in the chair.

Professor G. EMILIO CURATULO, of the Royal University of Rome, read a paper on the Influence of the Removal of the Ovaries on Metabolism in connexion with Osteomalacia. He alluded to certain hypotheses intended to account for the benefits afforded by castration in cases of osteomalacia. He then referred to experiments on bitches made by him and recorded in the Transactions of the Edinburgh Obstetrical Society. He found that after removal of the ovaries the quantity of phosphoric anhydride excreted in the urine was greatly and for a considerable time diminished, while the quantity of nitrogen remained unaltered. The diminution of phosphates began about the seventh day and continued for three or four months. Professor Curatulo regarded this as being the result of a diminished oxidation of phosphorus, existing as an organic compound in the tissues, and which, combining with calcium and magnesium, is stored in the bones. He supposed that the ovaries produced a secretion capable of facilitating the oxidation of the phosphatic organic substances which supply the material for forming the walls of the bones, and that their extirpation leads to a greater accumulation of earthy salts in the skeleton. He mentioned some experiments he had made which tended to prove this.—Dr. AMAND ROUTH thought that the great value of this paper was the new method by which Professor Curatulo had endeavoured to explain the action of the ovarian "internal secretion." He alluded to the various ductless glands of the body and their—at present—inexplicable mode of action. He thought it not improbable that Professor Curatulo's method of examining the urinary secretion might, as in the cases now under discussion, be the means of arriving at an explanation, especially in acromegaly, where bone-tissue was also involved.—Dr. W. S. A. GRIFFITH was of opinion that Dr. Curatulo's contribution should not lead them to take too narrow a view of the subject. It was unlikely that the ovaries had an important *rôle* in connexion with the disease in women, and of course they had none in man. He had obtained specimens from the dissecting-room at St. Bartholomew's Hospital, all from subjects of advanced age. There was also another class of case occurring in childhood to which little attention had been directed. He had found specimens described as rachitis, with all the

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characters of mollities ossium; and the influence of the ovaries at both the above periods of life would need careful investigation. — Remarks were also made by Mr. BLAND SUTTON and by Dr. DUNCAN.

Dr. LEONARD REMFRY read a paper on the Effects of Lactation on Menstruation and Impregnation. He had made notes of several hundred cases with the view of elucidating the above point. He mentioned the usually acknowledged relation between the functions of the breast and those of the uterus, both as regards menstruation and involution. He speculated on the condition of the endometrium during suckling when amenorrhœa is present, and then gave the results of his inquiries. These led him to the following conclusions: (1) Of suckling women 57 per cent. only have absolute amenorrhœa; (2) 43 per cent. menstruate more or less, but 20 per cent. have absolute regularity; (3) impregnation does not take place so readily during lactation as at other times, but this is not true to such an extent as has been imagined; (4) if absolute amenorrhœa is present during lactation the chances of impregnation occurring are only 6 out of 100; (5) if menstruation occurs during lactation the chances of impregnation are 60 in 100; (6) the more regular a woman is during lactation, the more likely is she to become pregnant; (7) during a menstruating lactation the changes in the uterus are presumably similar to those connected with the ordinary monthly periods, and the mucous membrane forms a nidus for the ovum; and (8) in the woman who does not suckle at all the menses appear as a rule some time in the first six weeks after delivery.—Dr. EDEN said there was no evidence of a functional relation between the mammæ and the uterus beyond the fact that stimulation of the cutaneous nerves of the nipple induced reflex contractions of the uterine muscle. According to Dr. Remfry's paper, mammary activity had no definite effect on the menstrual function, for in about half the cases there was amenorrhœa, and in the other half menstruation continued. Dr. Remfry's paper had an important bearing on certain theoretical considerations. It was now proved that ovulation and menstruation were independent processes, and there was a growing opinion among physiologists that menstruation ought not to be regarded as bearing any important relation to conception. His facts proved that physiological amenorrhœa—i.e., amenorrhœa without impairment of the general health—was an extremely unfavourable condition for the occurrence of conception. This could only be explained by the assumption that the preparation of the uterine mucous membrane by the menstrual process was a very important item in the factors of conception. If this view were accepted, however, they were met with the difficulty of explaining those rare cases in Dr. Remfry's list in which conception occurred during amenorrhœa. It must be remembered that nothing is known about the condition of the uterine mucosa in amenorrhœa. All that was meant by the term was that there was no monthly escape of blood from the uterus. That there still might be constitutional changes was proved by the occurrence of menstrual molimina in a certain proportion of cases of amenorrhœa. It was also possible that menstrual changes occurred to a certain extent in the uterine mucosa, not sufficient to cause an escape of blood by the natural passages, but enough to prepare the membrane for the due reception of the fertilised ovum.—Dr. MCCANN stated that he had been for six months collecting statistics on the subject of Dr. Remfry's paper. Without giving accurate details he was able to say, first, that the majority of women who become pregnant during lactation have menstruated regularly after their confinement; secondly, that the greater number of pregnancies during lactation commence after the eighth month; thirdly, that in most cases the supply of milk diminishes on the occurrence of pregnancy, and the monthly loss of blood ceases; fourthly, that prolonged lactation, especially where the milk-supply is copious, favours superinvolution and subsequent sterility; fifthly, that menstruation during lactation does not always recur in the same individual; and sixthly, that the amount and duration of the menstruation during lactation correspond to that of the ordinary menstruation in the same individual. Dr. McCann did not think that non-suckling was a cause of subinvolution of the uterus.—Remarks were also made by Dr. BOXALL and Dr. LEWERS.

The following specimens were exhibited:—

Mr. A. F. STABB: (1) Placenta with Insertio Velamentosa; (2) Abnormally Large Placenta, weighing 3 lb.

Mr. G. GENGE (introduced by Dr. CULLINGWORTH): Compressed Fœtus (one of Twins) with Placenta.

Dr. CULLINGWORTH: (1) Large Fibro-cystic Myoma growing from the Cervix Uteri; (2) Multiple Fibro-myomata of the Uterus.

Dr. LEWERS: Pyometra complicating Cancer of the Cervix.

WIGAN MEDICAL SOCIETY.

Xerostoma.—Method of Election of Honorary Surgeons to the Wigan Infirmary.—Exhibition of Cases.

A MEETING of this society was held on Dec. 12th, 1895, Mr. W. MITCHELL ROOCROFT, President, being in the chair. The office-bearers for 1896 were nominated.

The PRESIDENT then read a very interesting paper on Xerostoma, relating very fully the clinical features of a case under his care, and also referring to the reported cases of the disease.—A discussion followed, in which Dr. REES, Mr. GRAHAM, Mr. BRADY, Mr. LOWE, Dr. BENSON, Dr. BLAIR, Mr. ANGIER, Mr. MONKS, and Mr. JONES took part.—The PRESIDENT replied.

Dr. REES moved a resolution of which he had given notice at the previous meeting—namely, "That this meeting of the Wigan Medical Society is of opinion that the present method of election of the honorary surgeons to the infirmary ought to be abolished. That this meeting also suggests to the Infirmary Committee (*a*) that canvassing by or on behalf of a candidate shall invalidate his election, and (*b*) that the election be made by a special meeting of those who are at present qualified to vote." Dr. Rees, in an appropriate speech, introduced the subject, alluding to the remarks in THE LANCET of Aug. 31st, 1895, which strongly deprecated the usual mode of electing honorary surgeons to the Wigan Infirmary.—Dr. BLAIR seconded.—The HON. SECRETARY then moved as an amendment, "That this meeting of the Wigan Medical Society is of opinion that the present method of electing the honorary surgeons to the infirmary might be abolished."—This was seconded by Mr. BRADY. Owing to the lateness of the hour the discussion was adjourned.———At a special meeting of the society, which was held on Thursday evening, Dec. 19th, 1895, the PRESIDENT in the chair, Dr. REES formally moved his resolution, which was seconded.—The HON. SECRETARY then moved his amendment, which was seconded by Mr. BRADY.—An animated discussion followed, a divided opinion being expressed as to the degradation of canvassing, the following members taking part in the debate: Dr. Benson, Dr. Rees, Mr. Monks, Mr. Brady, Mr. White, Mr. Wright, Mr. Cowan, Mr. Parker, Dr. Heyliger, Dr. Blair, Mr. France, Mr. Lowe, and the Hon. Secretary.—Dr. REES withdrew his motion, and, the amendment being put as the substantive motion, Mr. LOWE moved the following amendment, which was seconded by Dr. REES and carried by 9 votes to 7—namely, "That, in the opinion of this society, there should be some modification of the mode of election of the honorary medical staff of the infirmary, and that a committee of the Medical Society be appointed to discuss the question with the members of the board of management of the infirmary." The committee of the Medical Society, with the addition of Mr. C. R. Graham, was afterwards appointed the committee for the purpose.

Mr. LOWE showed, and made some remarks on, the following cases. The first was a case of Complicated Compound Fracture of the Femur, in which the lower end of the upper fragment pierced the quadriceps extensor cruris muscle and could not be reduced. He sawed off the end of the protruding bone and reduced the fragments to apposition, carefully sealing up the wound with sutures and dressings. Union of the wound was by first intention, and there was good union of the bone. The second was a case of Fracture of both Femora into the Knee-joints. The case had been treated with a Hamilton splint, and there was good union of the bones and very little restriction in the movements of the joints.—Several members remarked on the cases.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

Exhibition of Cases and Specimens.

A MEETING of this society was held on Dec. 18th, 1895, Dr. CRAIG, Vice-President, being in the chair.

Dr. ALLAN JAMIESON showed a case of Scleroderma Pigmentosum in an early stage. Only two similar cases had

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been seen in Scotland. The patient, a girl three and a half years old, had a tuberculous family history. When twelve months old she had a roughness of the face, which appeared to be itchy, and gradually increased. The surface never oozed or became wet, but was always dry and scaly. Nine months later freckles appeared and gradually increased in number. The condition was entirely confined to the face, the skin of which was dry, scaly, and freckled, with here and there stigmata, small pinkish spots and atrophied white ones, and on the cheeks there were several warty growths with narrow red areolæ; one had fallen off, leaving a pink macular scar.

Dr. MACGILLIVRAY showed (1) a case of Excision of the Condyles of the Humerus for Dislocation with Fracture, movement being practically perfect; and (2) a case of Thyrotomy for Papillomata growing from the Ventricle of the Larynx.

Mr. COTTERILL showed a child whose illness began with a large Swelling in the Left Hypochondriac Region, and on aspiration fluid was obtained which gave the reactions of pancreatic cystic fluid. The cyst was opened posteriorly and extra-peritoneally, below the twelfth rib and between the renal vessels, which had been pushed upwards. The cyst-wall was very hard and fibrous. A drainage-tube was kept in for three months. The posterior operation seemed to be safer than the anterior. Since operation the child had put on flesh rapidly. Liquor pancreaticus had been administered, as in these cases the gland was functionless.

Mr. COTTERILL also showed a case of Spina Bifida, leading by a narrow bony aperture into the body of the sacrum, and a case of Actinomycosis of the Cheek.

Mr. CAIRD showed a male patient who had suffered from Discharge from the Ear for years. On the discharge ceasing, headache, fever, &c., developed. The mastoid was opened, with improvement for some days. Frontal headache, however, developed, which increased, and in twelve hours he had become incoherent, with high temperature, paresis of the upper part of the face, twitchings of the right side of the body, then of the left, and paralysis of the right side. Intra-cranial suppuration, rapidly developing in the cortex, was diagnosed. He was trephined over Broca's convolution, but nothing was found. The dura mater was opened and some fluid escaped, but nothing further could be discovered. He was put back to bed, and after the operation he developed all the symptoms of tuberculous meningitis with coma. After a time he improved and very gradually recovered. It seemed to be a case of tuberculous meningitis in which recovery had taken place.

Mr. CAIRD also showed a lad operated on for Dilatation of the Stomach with progressive emaciation. On opening the abdomen the pylorus was found to be constricted and the stomach and duodenum dilated. The pylorus was enlarged by a longitudinal incision converted into a transverse one. The greater curvature of the stomach was doubled up and stitched to the lesser curvature, and so the stomach was rendered smaller. Marked improvement took place, but it was still necessary to use the stomach tube.

Dr. JOHN THOMSON showed (1) a boy aged six and a half years, suffering from Deformity of the Hands and Fingers due to an Attack of Peripheral Neuritis following Measles; and (2) a girl aged fourteen years with Elephantiasis of the Neck, Scalp, and Face.

Mr. WALLACE showed a patient who had been operated on for Abscess of the Brain following Ear Disease. A large abscess in the temporo-sphenoidal lobe was evacuated and a drain left in. A good recovery was made, the only remaining symptom being slight amnesic aphasia.

Mr. ALEXIS THOMSON showed patients who had undergone Neurectomy for Trigeminal Neuralgia. The first patient, a man aged seventy-four years, had suffered from epileptiform attacks of neuralgia brought on by movement of the jaw. One and a half inches of the supra-orbital nerve were removed with relief. In a fortnight the neuralgia began again in the auricular branch, an inch of which was removed. He had now no pain and there was no deformity. In the second patient the Gasserian ganglion had been removed by Rose's method. There had been no pain since the operation, and the only disability was some stiffness of the jaw.

Dr. NORMAN WALKER showed four cases of Lichen Planus presenting the typical characteristics, and a case of Leucoderma.

Dr. MCKENZIE JOHNSTON showed Foreign Bodies from the Nose, Throat, and Ear, one of which, a button, had been removed from the nose after fifteen years' lodgment.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Uncommon Symptoms in Cases of Throat Disease.—Syringomyelia.

A MEETING of this section was held on Dec. 13th, 1895, Dr. THOMAS W. GRIMSHAW, President, being in the chair.

Mr. J. J. BURGESS described a case of extremely acute Tonsillitis in which frequent Hæmorrhage from the surface affected was the prominent symptom. This resisted all hæmostatic drugs, was independent of an abscess which was opened, and persisted for some days after the acute symptoms had disappeared, until, as he believes, exhaustion finally caused its cessation. He also gave particulars of a case of Spasm of the Larynx. The patient was a young man in apparent health, who, after he was suddenly seized with a choking fit, was believed by his parents to be dead. Artificial respiration partially restored him, but on some brandy being poured down his throat an intense spasm came on and apparent asphyxia; the symptoms were so sudden that death was believed to have taken place. After six hours' artificial respiration he rallied, the rash of measles followed, and the patient made a rapid recovery.—Dr. JAMES LITTLE said that very severe and anomalous symptoms sometimes occur when the exanthemata (scarlet fever and measles) are about to appear, and he had seen cases of this nature in which it was impossible to make a diagnosis until twenty-four hours or more had passed.—Dr. WHEELER believed that Mr. Burgess would find two cases similar to his mentioned in the *Medical Times and Gazette*. He was not sure of the date of the number containing the reports, but he believed it was one of the numbers of 1859 or 1860. As well as he could remember, one of the reports was by a Mr. Stanley.—Dr. J. W. MOORE said that Trousseau, in his Clinical Medicine, mentions a case where violent convulsions, extending over eight days, subsided on the first appearance of the rash of scarlet fever.—Dr. W. J. SMITH believed that the severe hæmorrhage in the first case was from the vertical arteries that run in the pharyngeal folds. Those vessels cannot contract as well as other arteries, hence the severity of the hæmorrhage. With respect to ergot as a remedy for internal hæmorrhage, except in the case of the uterus he considered the drug quite useless.—Dr. WOODS considered that in the first case a vessel had been opened by an ulcerative process. He was not sure that it must have been necessarily an artery. Venous bleeding, he thought, was a much more serious matter than arterial bleeding.—Mr. BURGESS, in reply to Dr. Woods, said that he arrived just after the occurrence of the hæmorrhage in the first case. He did not see the bleeding points, and his difficulty had he used styptics was where to apply them.

Dr. M. M'HUGH gave a brief account of the pathology and symptomatology of Syringomyelia. The term is now restricted to cavities produced in the cord by the liquefactive or cystic degeneration of a gliomatous neoplasm. The gliomatosis results from a proliferation of embryonic tissue remaining over in that part of the cord developmentally the weakest—viz., the posterior grey commissure and its vicinity. Schultze first pointed out the symptoms characteristic of the disease, and with an accumulated clinical experience it was now possible to diagnose cavities in the cord from the patient's symptoms with almost the same facility and accuracy as posterior sclerosis in a case of locomotor ataxy. The patient exhibited, a male aged twenty-five years and a native of County Mayo, presented the following symptoms—viz., trophic lesions in the hands, consisting in loss of the terminal phalanx of each middle finger, with the cicatricial remains of cutaneous fissures, and transversely corrugated nails, also remarkable thickening of certain phalanges (cheiromegaly of Charcot). Muscular atrophy of the ulnar type was also present, well-marked in the scapular muscles and the trapezius, which showed fibrillation; faradaic contractility was impaired; sensory dissociation—i.e., analgesia and thermo-anæsthesia—together with retention of tactile sensibility and the muscular sense was well-marked, with a wide symmetrical distribution. The patient also exhibited scoliosis, with convexity towards the right, and spastic symptoms in the lower extremities; there were very slight vaso-motor disturbances and no ataxia or ocular derangements or visceral troubles. Dr. M'Hugh referred to the trophic lesions in the hands, painless whitlows

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with cheiromegaly, as similar to those found in Morvan's disease. The latter, however, was now considered to be only a type of syringomyelia, and the case exhibited was a true example of the disease, showing Morvan's symptom—sensory dissociation, the most remarkable feature of the disease, and one difficult to explain—Dr. CRAIG remarked that the symptoms of the case were most classical from the fact that they occurred in a patient from twenty to twenty-five years of age; that dissociation symptoms were so well marked; that muscular atrophy attacked the upper extremity, causing weakness; and that there was spastic paralysis of the lower limbs and curvature of the spine.—Dr. BOYD drew attention to the scoliosis which is so often a marked feature in atrophy of the muscles of the shoulders and back.—Dr. M'HUGH, in reply, said that the fact that the scoliosis was to the left and not to the right side was remarkable.

SECTION OF OBSTETRICS.

Solid Ovarian Tumour.—Ovariotomy at Sixty Years of Age.—Ovarian Tumour simulated by Misplaced and Rotated Spleen.—Exhibition of Specimens.

A meeting of this section was held on Dec. 20th, 1895, Dr. LOMBE ATTHILL, the President, being in the chair.

Dr. ALFRED SMITH read a paper on a Solid Ovarian Tumour. The patient was aged twenty-five years and was unmarried; her abdomen was so distended that she was unable to recline in bed and had to be supported in the semi-erect position by an arrangement of pillows. Abdominal palpation revealed an immense collection of free ascitic fluid, and no tumour could be made out, but on paracentesis being performed fourteen pints of thin, serous fluid were removed, and a tumour occupying the left inguinal and lumbar regions was then distinctly palpable, floating freely about the abdominal cavity. It was removed by cœliotomy. The patient's recovery was interrupted by a severe internal hæmorrhage thirty-six hours after operation, controlled by reopening the abdomen and securing the bleeding vessel. The blanched and pulseless condition of the patient required the use of saline solution as a peritoneal douche. This caused a marked and immediate improvement, and there had been no return of the ascites since the operation, seven weeks previously. The tumour was a myosarcoma as large as the adult head.

The Hon. Secretary read for Dr. KINKEAD a paper on a case of Ovariotomy, the patient being sixty years of age. The wound healed by first intention; the patient sat up in bed on the tenth day and was out of bed on the eighteenth day. The cyst contained 640 oz. of dark-brown fluid.

Mr. HENRY GRAY CROLY exhibited a large Multilocular Ovarian Tumour which he had removed from a girl aged sixteen years after it had been growing for about nine months. Menstruation had been irregular of late, and the "ovarian face" was very marked. The girl lost flesh considerably. The measurements were 38 in. in circumference at level of umbilicus, 30½ in. at ensiform cartilage, 8½ in. from umbilicus to right anterior superior spine, and 8¾ in. from ensiform cartilage to left anterior superior spine. The usual incision was made, and two gallons of gelatinous, greenish fluid were drawn off from a large cyst. There was no hæmorrhage. The girl was fed per rectum for several days; she made a rapid recovery and became fat.—Mr. CROLY also exhibited a Misplaced and Rotated Spleen which simulated an Ovarian Tumour and had been removed from a married woman aged forty years. She had had several children, but had never noticed any abnormal tumour until last summer. The swelling commenced at the left side and gradually extended towards the right, but was not painful. The patient lost flesh and her features changed. She thought at first she was pregnant. The medical man who had attended her previously had never observed any abdominal tumour until he was consulted after her last confinement. She aborted shortly after her admission to hospital. On palpation the tumour was firm and gave the sensation of fluctuation, and, though apparently larger on the left side, crossed well over to the right and could not be moved upwards or downwards. There was no history of ague, and the woman had never been out of her native place. The unanimous opinion was that the tumour was ovarian. Mr. Croly performed laparotomy and came down on a large, solid, fleshy mass, with purpuric mottling on the surface. The pedicle could not be found until the wound was extended above and to the left of the umbilicus, where a funis-like pedicle was discovered, which was secured by a double silk ligature. The patient went on most favourably for some days, when vomiting and collapse set in, and she succumbed. No post-mortem examination was obtained.—The PRESIDENT said that fifteen years ago he had diagnosed an ovarian tumour which proved to be a sarcoma. The patient was now married, and her only cause of regret was that she had no children.—Dr. MACAN said that his diagnosis of Mr. Croly's case was that the woman had been going about with a twisted spleen for many months, and that enlargement was due to the twist.

Dr. ALFRED SMITH showed an Abscess of the Ovary with Pyosalpinx, which he had removed from a patient who had suffered from a severe attack of puerperal fever twelve months previously; it burst during removal. The peritoneal cavity was protected by thin gauze sponges; the pelvis was douched out with gallons of saline solution, and there was rapid recovery.

Mr. HASTINGS TWEEDY exhibited a Dermoid Tumour of the Right Ovary, which he had removed from a patient aged forty-five years. It contained much hair and a portion of lower jaw, with many teeth embedded in it.

BEQUESTS AND DONATIONS TO HOSPITALS.—The corporation of London has made the following grants—namely, 100 guineas to the Westminster Hospital and 50 guineas to the Alexandra Hospital for Children with Hip Disease, Queen's-square, Bloomsbury. — The Merchant Taylors' Company has forwarded a donation of 50 guineas to the St. George's Hospital, London.—The Carpenters' Company has voted £70 to the London Hospital.—The Fishmongers' Company has granted a donation of £105 to the Poplar Hospital for Accidents.—The Hull Hospital Sunday Fund for the past year realised £784 3*s.* 8*d.*, which has been allocated, *inter alia*, as follows: £491 to the Hull Royal Infirmary, £80 to the Hull and Sculcoates Dispensary, and £132 to the Victoria Hospital for Sick Children.—The late Mr. Daniel Sheriff Jackson of Llandudno has bequeathed £5000 to the Mauldeth Hall Hospital for Incurables, Manchester.—Mrs. Hammand, widow of the late Mr. E. W. Hammand of Aldrington, has given £1250 to endow a bed, to be called the "Edward William Hammand" bed, in the south wing of the dispensary in the Sackville-road, Hove.—As the result of the recent exhibition in the Town-hall, Middlesborough, the North-Riding Infirmary and the North Ormesby Cottage Hospital have benefited to the extent of £300.—The following sums have been received by the treasurer of Guy's Hospital in response to the recent appeal for funds—namely, from Mr. A. Lilienfeld, £25; South Metropolitan Gas Company, £100; Mr. Jackson Hunt, £52 10*s.*; Mr. J. Wernher, £500; Anonymous, £210; and Mr. G. C. Raphael, £200. — The treasurer of Middlesex Hospital has received 3000 guineas from an anonymous donor as a perpetual endowment of one bed and two cots, in memory of his young wife.—The treasurer of the Keighley and District Hospital has received £340 from the Friendly Societies' Gala Committee as the result of their demonstrations, &c., on behalf of the institution during the past summer.—The late Mrs. Mary Ann J. Allcroft, widow of Mr. John D. Allcroft, treasurer of Christ's Hospital, London, has bequeathed £1000 to the Royal Hospital for Incurables, Putney.—Mr. Henry B. Peart, late of Brighton, has bequeathed £1000 each to the Hospital for Consumption, Brompton, the St. Mark's Hospital for Fistula, the National Hospital for the Paralysed and Epileptic, London, and the Sussex County Hospital.—Alderman G. B. Lloyd has given £500 in behalf of the building fund of the new General Hospital, Birmingham.—Mr. Councillor Edward White has contributed £500 to the Sussex County Hospital, £200 to the Hospital for Women in West-street, Brighton, £100 each to the Children's Hospital and the Brighton and Hove Dispensary, and £50 each to the Throat and Ear Hospital and the Eye Hospital Brighton.—Mr. James Laing of Thornhill, Sunderland, has given £500 in memory of his son, who died two years since, towards the furnishing account of the Heatherdene Convalescent Home, Harrogate, an adjunct of the Sunderland Infirmary.—The treasurer of Guy's Hospital has received from Mr. Cosmo Bonsor, M.P., deputy chairman of the South-Eastern Railway Company, £221 as the proceeds of a concert, all the expenses of which had been borne by the staff.

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Reviews and Notices of Books.

An Anatomical Dissertation upon the Movement of the Heart and Blood in Animals, being a Statement of the Discovery of the Circulation of the Blood. By WILLIAM HARVEY, M.D. Privately reproduced in facsimile from the Original Edition printed at Franckfort-on-the-Maine in the year 1628, with a Translation and Memoir, for G. Moreton, 42, Burgate-street, Canterbury.

THIS handsome volume deserves to be studied by all who are interested in the story of England's greatest contribution to physiology. It contains a masterpiece of facsimile reproduction of typography, comprising everything that is in the original edition of Harvey's famous "Exercitatio Anatomica de Motu Cordis et Sanguinis in Animalibus," from the engraved title-page to the concluding list of *errata*, for which the Frankfort printer apologised on the ground of "rei novitas & nostris correctoribus inusitata missi exemplaris litera peregrina." He, however, omitted reference to some of his *errata*, as, for instance, that on p. 7, line 3, where the medial letter *p* has dropped out of the word "philosophati." The method of reproduction is not mentioned; but it has, no doubt, been some photo-mechanical process. The result has been compared with a copy of the original edition in the library of the British Museum, and the practical identity of the printed surface in the two volumes is hardly attainable by any other means. The above-mentioned gap in the word "philosophati" is in the Museum copy filled by a letter of distinctly more slender outline than the others. In the new edition the two engravings of the arms bandaged for venesection have a pale-grey background, which does not exist in the original. The latter, moreover, was printed on paper of indifferent quality with narrow margins, but the new edition is on thick and fine paper with wide margins all round, top edge gilt, front and bottom edges rough, vellum back with cloth sides. When the original appeared in 1628 Harvey would be in his fiftieth or fifty-first year; the first English reprint of the Latin text was published in 1648, and the first English translation in 1653. Harvey died in 1657. The Exercitatio consists of only seventy-two pages (thirty-six leaves), including the title-page, but not including the list of errata, and is therefore among the smallest of the seventeenth-century treatises which have conspicuously extended the field of knowledge. The original work on Logarithms by Napier of Merchiston is comparable with it in this respect. Among other treatises of the same century, which, though in small compass, nevertheless enjoy permanent celebrity, that of Sir Isaac Newton on Fluxions was bound up with the first edition of his Opticks; and that of Descartes, in which the science of coördinate geometry was first unfolded, was published anonymously in 1637 in connexion with the "Discours de la Méthode pour bien conduire sa Raison."

The book has for its frontispiece a portrait of Harvey, and it also contains an excellent English translation of the "Exercitatio," being, with a few verbal emendations, the version by Dr. Robert Willis of Barnes, Surrey, by whom the whole of Harvey's works were translated for the Sydenham Society in 1847.

Physical and Natural Therapeutics. By GEORGES HAYEM, M.D., Professor of Clinical Medicine in the Faculty of Medicine, Paris; edited by HOBART AMORY HARE, M.D., Professor of Therapeutics and Materia Medica in the Jefferson Medical College, Philadelphia. Edinburgh and London: Young J. Pentland. 1895.

As a sub-title explains, this is a work dealing with the remedial uses of atmospheric pressure, climate, heat and cold, hydro-therapeutic measures, mineral wafers, and electricity. This is a comprehensive and not wholly homogeneous group of subjects, and we are not entirely convinced of the practical utility of treating them together. Climatology is in itself a very large subject, any cursory treatment of which cannot be of much value; balneology in like manner has become too extensive to handle conveniently as a mere section of a general work, and the therapeutic applications of electricity have become almost a new branch. On these grounds, therefore, we think Dr. Hayem has essayed a task of no ordinary difficulty, nor can we think that the execution of it has been quite successful. In the section on Climate we are informed that "Tasmania and New Zealand have been much extolled in recent years as climatic resorts. They are not of sufficient interest to warrant a detailed description. ..... New Zealand has a humid and wind-swept coast, and should be avoided by sufferers from pulmonary diseases." This is both superficial and inaccurate. The provinces of Napier and Canterbury in New Zealand afford some good resorts for phthisical patients. As regards Davos we are informed (p. 67) that "the air is quite humid, more so in the winter than the summer." Again, what are we to make out of the statement on p. 73 that "the dry and cold climates are so rarely employed in the treatment of disease that their considerations (*sic*) may be omitted"? In this section Dr. Hayem draws largely, with the most ample acknowledgments, upon the works of Weber, Williams, and Lindsay, but we imagine those writers will be somewhat surprised at the use sometimes made of their material. The section on Mineral Waters seems to be more carefully done, and is on the whole sound and accurate. The writer's estimate of the sphere and utility of mineral waters is moderate and judicious. The section on Electricity is full and comprehensive, and is perhaps the best part of the book. The writer has a high opinion of the practical applications of electricity, which he styles "one of the most remarkable of therapeutic agents." The following paragraph contains some of the more important of his views on this subject: "Central galvanisation is said to produce chiefly improvement in sleeping, increase of appetite and muscular force, reawakening of intelligence, and the disappearance of fatigue. An increase in the body-weight is not observed after this treatment, this being produced only by general faradisation. The indications for the general measures are numerous. They comprise, apart from the neuroses, those diseases that are associated with disorders of nutrition, and involve from their long duration a more or less intense wasting of the organism. It is conceded that in cases in which it is desired to act specially upon the central nervous system preference should be given to general galvanisation, and that general faradisation has a more marked action on the skin and the muscular masses, and that it is particularly adapted for producing a general tonic action." On the whole, this is a disappointing book.

Ireland: its Health-resorts and Watering-places. By D. EDGAR FLINN, F.R.C.S. Irel., D.P.H., Examiner in State Medicine and Public Health, Royal Colleges of Physicians and Surgeons' Conjoint Examining Board, Ireland. Second Edition. Dublin: Fannin and Co. London: Baillière, Tindall, and Co. 1895.

MANY writers, both in prose and verse, have celebrated the beauties of Irish scenery, and reminiscences of famous events are plentiful all over the country; but the throng of English tourists who make their way every year to the Rhenish watering-places, to Switzerland, and to the shores of the Mediterranean do not fully realise the excellent opportunities which await the summer visitor to Ireland. Fashion is, no doubt, accountable for some of this indifference, but other explanations of it are to be found in the superior attractions of gay Continental show places and the skill of their inhabitants in suiting various tastes

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Mr. Flinn's book contains a wealth of information for those who desire relaxation and change of scene without encountering the drawbacks incidental to foreign travel. It is a valuable addition to our manuals of special topography, being profusely illustrated and introducing the reader to some ninety localities notable either for mildness of climate, charming scenery, or mineral springs. Sulphuretted springs occur at Lucan (nine miles from Dublin), at Lisdoonvarna (on the west coast, near Galway Bay), at Swanlinbar (county Cavan), and at Ballynahinch (seventeen miles from Belfast). Chalybeate springs are found at Lisdoonvarna, Castleconnell, Ballynahinch, and other places. The only warm spring in Ireland is at Mallow, in county Cork, the temperature of the water being from 70° to 72° F.

Nursing in a Nutshell: the Rearing and Management of Children from Infancy upwards. By a DOCTOR OF MEDICINE. London: Iliffe and Son. Price 6*d*.

THIS little work is described as a practical instructor for the use of parents and superior nurses, and is mainly applicable to children in ordinary health. It is excellently adapted to the end in view, but in the short chapter on the Eyes and Sight some warning might have been added as to the care of the sight during school-life, and readers are likely to be misled by the reiterated statements to the effect that "a successful vaccination affords as much protection against small-pox as an attack of that disease itself." This statement is rather equivocal; it would have been more to the point had the writer emphasised the value of re-vaccination after childhood, as ensuring a degree of protection even greater than that afforded by a previous attack of small-pox.

LIBRARY TABLE.

A Treatise on the Nervous Diseases of Children, for Physicians and Students. By B. SACHS, M.D., Professor of Mental and Nervous Diseases in the New York Polyclinic, &c. pp. 650. 160 Illustrations. London: Baillière, Tindall, and Cox. 1895.—Dr. Sachs presents us in this volume with a very full, clear, and well-illustrated account of a number of forms of nervous disease. From the title of the book we were led to expect that the description of the diseases would refer to the manifestations present in children. Liberal space, it is true, is given to affections such as chorea and the myopathies which are met with most frequently in juvenile subjects; but when we come to conditions such as epilepsy, which are met with at all ages, the description of the disease is much more suited to adult cases than to children. There is no attempt made to differentiate for the reader the picture presented by children suffering from particular complaints and that of adults in the same condition. Chapters are even given to paralysis agitans and tabes dorsalis. Hence the reader is constantly in confusion as to whether adults or children are referred to. A chapter on Mental Disorders is added, including a section on Idiocy and Imbecility. The book shows throughout that the author is a man of very wide and accurate neurological knowledge, and that his descriptions are based on personal observation and experience. It is much to be regretted that he did not prune the book more thoroughly before publication and keep rigidly to the subject he had chosen for the title. The language employed is clear and pleasant, and the book is profusely illustrated, chiefly from photographs of clinical cases.

Annales de l'Institut Pasteur. Vol. IX., No. 11. Paris: G. Masson, Nov. 1895.—This account of original work carried on in the Pasteur Institute comprises several papers of great interest. M. Marchoux has experimented further with the serum of blood taken from an animal that has been immunised against anthrax, and finds that the antidotal powers of the serum are greater if taken a short time after a fresh dose of a virulent anthrax culture has been given to the immunised animal. He finds that the best results are obtained if the serum is prepared two or three weeks after the last inoculation. M. Duclaux continues his researches on intra-cellular nutrition, based mainly on the behaviour of the ordinary organisms of fermentation in various media, and M. Grimbert deals with the changes produced by the growth of pure cultivations of Friedländer's pneumococcus in sugars, glycerine, &c. Contrary to what Frankland had supposed, he finds that it acts on glycerine, splitting it up into ethyl alcohol, acetic acid, and lactic acid.

The Care of the Baby: a Manual for Mothers and Nurses. By J. P. CROZER GRIFFITH, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Philadelphia: W. B. Saunders. 1895. Price, $1.50.—Parents will find in this volume of 370 pages most copious information on every detail of nursery management. The opening chapter describes the precautions to be observed by the mother during the later months of pregnancy and gives elaborate directions as to the preparations to be made for the expected event, "ether, one half-pound," being among the articles to be provided for the occasion, although its use or application is nowhere alluded to. There are eleven chapters in all, the last of which, on the Sick Baby, is the largest, covering about 130 pages. It contains rather more than the average mother can be expected to assimilate, but the general directions as to domestic treatment until medical advice can be obtained are excellent, and the fulness of the symptomatology makes it worthy the attention of young practitioners. The book is written in an agreeable style and is copiously illustrated.

New Inventions.

A NEW VACCINATOR.

PRACTITIONERS who have to vaccinate a large number of patients in rapid succession will appreciate the utility of any contrivance by which the operation is facilitated, and observation for an hour or two at a well-attended vaccination station will remove any doubts as to the saving of time and labour which may be effected by the adoption of a judicious system. For these reasons I forward a description of an instrument which Messrs. Mayer and Meltzer have made for me, and which I have found very effective in my capacity as a public vaccinator. It consists, as will be seen by the illustration, of a blunt-pointed lancet and needle in one instrument. The advantages of it are, firstly, that it is easily kept clean; secondly, that it can be used either as a

scarifier or as a puncturer; and, thirdly, that the roughness of the handle enables one to use it more easily than an ordinary lancet. It is put up in a wooden case in which there are recesses for tubes.

T. GARRETT HORDER.

Cardiff.

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THE LANCET.

LONDON: SATURDAY, JANUARY 11, 1896.

WE congratulate the members of the British Medical Association on the flourishing condition of their affairs as disclosed in the leading article which appeared in the *British Medical Journal* of Jan. 4th. We are willing to believe that (to quote the article in question) "its borders annually extend; its branches multiply; its interests become more varied." We can well believe this, for our own work during the past years has become steadily heavier as a consequence of the enormous output of energy in the profession, its daily annexation of new provinces, its hourly exercise of suzerainty over new realms. We can also well understand that the Association is constantly appealed to by individuals for the redress of grievances, for the members of the Association are numerous and the burdens borne by the overcrowded profession of to-day are neither light nor few. And in respect of these burdens we are glad to learn that appeals are seldom made without effect, for it is impossible to conceive the Association undertaking better work than the practical assistance of its members in times of trouble. THE LANCET Relief Fund, an account of whose administration during the year just gone, under the almonership of Sir RICHARD QUAIN, Sir J. RUSSELL REYNOLDS, Mr. CHRISTOPHER HEATH, and the Proprietors of THE LANCET, we published last week, represents our similar desire to alleviate, as far as lies in our power, the material ills of our professional brethren.

Thus far we go cheerfully with the *British Medical Journal*. So many members of the Association daily become our subscribers, so many are upon our editorial staff and among our personal friends, that the success of the Association could not be other than grateful to us, even if it did not benefit the profession at large to as full, generous, and scientific an extent as is frequently set out in the columns of its official organ. But to some of the sequel we take great exception. It appears from a paragraph that follows that "a recrudescence of the once popular vogue" of THE LANCET might "threaten the supremacy" of the *British Medical Journal*, and in support of the amiable suggestion that we are in a position to require recrudescence we find absolutely false statements with regard to our circulation. Now, this kind of thing belongs to the days of one Mr. POTT; it is a recrudescence of the editorial manners of the rival editors of Eatanswill, and it is not creditable to the great and rising position of the Association that such foolishness should appear in the columns of its journal. We should not have replied either to the insinuation or the false statements had it not been for the fact that so many of our friends, being members of the Association, may expect it of us: for our position is so well known to all whom it concerns that no necessity whatever exists for us to state it and shriek about it. That position is now exactly what it has ever been—the highest—and is due now to what it has been always due—honesty and thoroughness of purpose. As a result our circulation is the largest purely medical circulation in the world where the subscribers expect to get nothing whatever in return for their money save their paper, while our opinions are everywhere quoted because they are known to be duly weighed and sincerely held, and our high price does not enable our younger rivals to detach subscribers from us. But this we hope that they will continue to attempt, for healthy rivalry is good for all of us and must result in the giving to the profession the best that journalism can do. But they should make their attempt by legitimate methods; not by false insinuations or incorrect statements, but by producing a better paper than THE LANCET, one giving a more comprehensive review of matters of medical interest, and one more resolute to see that the medical man has justice everywhere, whatever his position or his plight.

NOTHING is more striking to the older members of the profession than the larger introduction of the trained nurse into the sick-room. In former days the advantage of nursing was practically the monopoly of the inmates of hospitals. In private families the nursing was done chiefly—and, let us remember with gratitude, was done often most effectively—by members of the family or by friends. Not unfrequently the monthly nurse was called in—perhaps to nurse a scarlet fever case. The system of domestic nursing still survives to a great extent among the middle and the lower middle classes of society, often to the great disadvantage of the patient and the still greater disadvantage of those who wait upon him night and day. The result too often is the illness of those who do nursing duty, or, if not illness, exhaustion and impairment of health arising from overwork. This is especially the case when relatives attempt the nursing of febrile diseases which require attention by night as well as by day. The reason why they break down so much more frequently than the trained nurse is obvious. The nurse has her fixed hours for rest, and she has a mind not wrought to a high pitch of anxiety and worry by personal affection. There is still a great deal of difficulty in regard to these classes in procuring consent to the sending for a nurse, excepting in infectious or urgent cases. This is due to two circumstances—firstly, the cost of the nurse; and, secondly, the prejudice against the introduction of a stranger who may be unsympathetic or even so exacting as to disturb the smooth working of the domestic arrangements of the house. In the choice of the medical man the patient or his relatives are guided by their knowledge or the knowledge of their friends, but in the choice of nurses there is rarely a chance

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of such guidance, neither the medical man nor the patient knowing beforehand anything of the nurse who is to be sent. This disadvantage is soon overcome by some nurses who by tact and kindness, not only to the patient, but to friends, conciliate and disperse all differences and overcome all objections.

But there are others who have no such faculties: who tread on everybody's corns, from the youngest servant up to her mistress; who seem to think that nursing means the exaction of as much attention to themselves as the patient requires, the appropriation of the patient and the bedroom, and the exclusion from it of those whose affection and solicitude it is her duty to consider; and, finally, who assume airs and authority of a medical character. Medical practitioners are often hindered and annoyed by such qualities in nurses, and naturally would be glad to encourage any mode of selection or any element in the education of nurses which would tend to eliminate from their ranks those who are so defective in the personal qualities which are essential in one who is to be left in charge of patients by night, when all their natural protectors are asleep. There is a most essential difference, again, between the medical man and the nurse. He is practically associated in all his work with the friends of the patient. He rather likes and invites their presence. She is apt to consider friends rather as in the way, or as being so uninformed in the technique of nursing as to be unfit even to coöperate with her in those offices which are her peculiar care. Necessarily she is left for hours together, and generally for the whole of the night, with a patient presumably incapable of judging of the faithfulness with which she discharges her duties and at a great disadvantage for making any just complaint.

We readily recognise that such unfit and unfortunate nurses are the exception. But it is the part of those who are making kind efforts to supply the public with efficient nurses to consider whether there is anything in the training that explains such grave faults, or whether it is not possible to apply to probationers at the outset some tests of character and temper that would eliminate those whose presence in a household is a source of complaint rather than help. In the case of the true nurse it is amazing how soon she becomes a favourite and an influence in the home, so that there is a rivalry to serve and to please her. It is, of course, difficult to apply tests of character and temper in the same way that tests of knowledge and of nursing skill are applied. But when so much attention is being given to the provision of suitable nurses it is worth while to emphasise the enormous importance of these elements of fitness, and of their possession by probationers and candidates. We ourselves should attach much more importance to the part played by such qualities in extending the demand for nurses than to the long and exhaustive training which seems to be the leading idea of all nursing authorities at present. We have to overcome prejudice—the prejudice of the public, and the prejudice, in some degree, of the medical practitioner, who in a nurse wants not an equal but a subordinate—one to accept his diagnosis and to carry out his instructions, and one who, as Sir DYCE DUCKWORTH has said, should, above all, have perfect command of the tongue, and be able to check any tendency to recount all the wonderful cases she has seen. As to the length of training requisite, a period of three years is desirable in the case of nurses meant for high surgery or special work, and such nurses might have a special register as surgical or special nurses. Surgeons, with all their responsibilities in the matter of antisepsis, are entitled to the guarantee of nurses thoroughly trained; but it will be a mistake to make three years compulsory as a condition of registration for all nurses. Such a long curriculum is not necessary in nurses for the run of cases in general practice. If nurses are to be trained for the work of ordinary practice they must not be overtrained. Such overtraining will unfit them for the very work they have to do and for the very classes who are most in need of more nursing. The fees for nursing must be kept within limits, otherwise nurses will remain, as now, the monopoly of the rich and well-to-do. If these considerations are borne in mind in any scheme for the registration of nurses it will be of great service, especially if associated with an authority which shall exercise some function of guidance and discipline in regard to them.

ONE of the characteristics of the present age is the increased attention given to matters which with much hocus-pocus jargon are pronounced to be occult, a word admirably adapted to cover ignorance in a guise of enlightenment. What may be described as the occult fever has never reached a climax in this country, and has always been kept under by the exposures of fraud that have been made from time to time. In America, however, judging from the amount of literature which reaches us dealing with so-called occult matters, it would seem that that country is suffering from an epidemic of "faith-healing," "Christian science," and the various other sequelæ which follow on an attack of the occult. In view of the contagion spreading to England it may not be out of place to say a few words upon the subject. We are reminded of it by a letter from a correspondent, which appeared in THE LANCET of Dec. 7th, 1895, in which he records a case where nocturnal enuresis was cured by ideation; in other words, the patient was made to cure herself by being led to believe that the abnormal condition from which she was suffering was under the control of her own will. In the hands of the honest practitioner such methods of curing disease are perfectly legitimate, and perhaps a little more attention might be paid to the subject by medical men with profit. But there is another aspect of the matter. It must not be forgotten that in all probability if the nostrums and appliances used by the quack and the charlatan have the therapeutic effect which in some cases they seem to have, it is simply by the confidence which the quack inspires in his victims, coupled with the power of suggestion. In no other way can we explain the effects of nostrums and charms possessing no known therapeutic value.

That certain conditions of the body, natural or induced, can and do influence the mind — we use the term in its broadest sense and as connoting thought, feeling, and will— is well known. That certain conditions of the mind can and do influence the body is also well known, but in the light of

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our present knowledge very little can be said about their *modus operandi*. Certain of the emotions, fear and expectation, for instance, have an influence on the body. A good example of this is given by Dr. T. LAUDER BRUNTON. A house physician, "Dr. H.," in the Royal Infirmary, Edinburgh, and a personal friend of his own, had a great dread of typhus fever, which was very prevalent in Edinburgh at the time when he was on duty at the hospital. He avoided going near cases of the disease as much as he possibly could, but one day he was asked to give his opinion upon a case of typhus fever by one of his fellow residents. The case, which presented some unusual symptoms, was in the ward devoted to typhus fever cases. "Dr. H." reluctantly went with his friend, but remained as far away from the case as he could. Unfortunately, however, he contracted the disease and died from it. Recent researches have shown that all depressing influences tend to lessen the resistance of a living organism to the invasion of microbes, and in all probability the effect of fear lessened the resistance in "Dr. H.'s" case and rendered him more liable to an attack of the disease than he would otherwise have been. Again, we know of a case where expectation, or, rather, the lack of it, may have been the cause of a negative result which in other circumstances would no doubt have been positive. At the afternoon tea of some medical men in an asylum syrupus rhamni catharticæ was surreptitiously substituted for preserve, of which one of them partook freely. As far as was observed, however, by the perpetrators of the questionable joke no purgative effect followed. It would not be difficult to multiply such simple instances of the power of the emotions over the body, closely allied as they are to methods in daily use by the medical man. Apart from the effects which fresh air and sunshine possess we all acknowledge the benefits which result from a change of scene or occupation, effects which are brought about by directing the mind from morbid and unhealthy channels into healthy ones. To digress for a moment it is not too much to say that music, literature, and the fine arts owe their educative effects to analogous principles.

It will thus be seen that ideation as a therapeutic agent is no new thing, nor is it unknown to the practitioner who uses it in a perfectly honest way. The charlatan and the quack, however, who are aware of its power and use, surround it with a glamour of mystery to charm and attract, as well as feed the credulity of their victims. Under these circumstances such cases as that given by our correspondent are well worthy of record and will help to expose the nefarious practice of the quack. At the same time the subject should be approached with caution, not to say scepticism, and we should remember the words of BACON when he says: "The relations touching the force of imagination and the secret instincts of nature are so uncertain as they require a great deal of examination ere we conclude upon them."

Two important resolutions were carried at the meeting of the Fellows of the Royal College of Surgeons of England on Thursday, Jan. 2nd, and each was of a character calculated to make the reactionaries of old turn in their graves. It is known that for some time past not the Members only but the Fellows also have considered it desirable that the government of the College should be less of an oligarchy than it is at present; and at the annual meeting of Fellows and Members held on Dec. 7th, 1895, the following resolution was carried:—"That the number of the Council be increased to thirty two, and that eight of these, who may be Members, shall be elected by the Members only, provided always that no Member who has not been a Member for twenty years shall be eligible for a seat on the Council." At the meeting of Fellows held on Jan. 2nd, 1896, this resolution was discussed, it having been referred by the Council to the said meeting. After some discussion the resolution was withdrawn and the following amendment moved by Mr. H. W. PAGE (originally moved in a more detailed form) was carried by a large majority: "That it is desirable to give the Members of the College direct representation upon the Council." *Parturiunt montes*—perhaps the average Member will exclaim—but, after all, the "*mus*" is not so "*ridiculus*" as would appear at first sight. The mere fact of a meeting of Fellows having agreed as to the desirability of Members being directly represented on the Council is an enormous step in advance, and a step taken in just the direction we have always advocated. The question whether the representatives shall be Members only or Fellows elected solely by Members may well, we think, be left under consideration for the present, it being sufficient that the principle of the direct representation of Members has been accepted by the Fellows.

We have urged upon several previous occasions the necessity for Fellows and Members to continue the struggle. The reforms of 1884 and 1888 have never been confirmed by Charter, but rest solely upon the will and pleasure of the Council, and inasmuch as this is the body whose exclusive privileges these very reforms seek to lessen, they are on a somewhat precarious foundation. The only speaker who definitely opposed any change at the meeting of Jan. 2nd was Mr. HENRY MORRIS, who among other arguments stated that the Council always had been self-elective, that at no time in the history of the College had the general body had any share in the government of the College, that no claim existed in law under which the Members could ask more than they at present enjoyed, and that election by the Members would be inexpedient, as the machinery thereof would cost £300 or more—a sum which the College could not afford. The first statement is not quite correct, as all know who have studied the evolution of the College from a craft to a Royal corporation. The difficulty about the cost of an election by the Members is most distinctly a point over which thought must be taken. As for the law—well, it goes to alter. A great stride forwards in the cause of reform has been taken, and all that is now necessary is pertinacity. The essential for success in these matters is perseverance, maintenance of position already gained, and a steady struggle forwards, even if there appear to be no actual advance. The government of the College still contains supporters of the old abuses, and there must be no relaxation of effort.

The second resolution passed by the Fellows at their recent meeting was to favour the admission of women to the diplomas of the College. With regard to this departure

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there is much to be said, but the most obvious comment to make at this moment is that women have reached the position shown by the resolution by a remarkable exhibition of the very pertinacity we have advocated above.

Annotations.

"Ne quid nimis."

A CLOUDED SKY.

THE year 1896 has opened with war-clouds and political difficulties all around—east, west, north, and south—and the most remarkable feature in the present condition of affairs is that they are generally of the most unpleasantly unexpected nature. Most people in this country knew nothing and cared nothing about Venezuela, and they were fully impressed with the belief that the most amicable feeling existed between the people of the United States and themselves—indeed, we should have said that, as far as the English are concerned, Americans were very popular; but the Venezuelan lid is lifted, and discloses a state of feeling on the other side of the Atlantic of which the vast majority of the people on this side had not the remotest idea. Then comes, to add to the public perplexity, the unhappy Transvaal surprise, which is still inexplicable to many people, and likely to remain so until we get a fuller knowledge of all the circumstances attending it. Dr. Jameson's past career gave him the reputation of being an able, clear-headed, and astute as well as a brave Scotchman. With him were also allied in his unfortunate and apparently unwarrantable enterprise a number of intelligent, responsible officers and others. The very natural impression, therefore, is that Dr. Jameson has somehow been altogether misled, if not betrayed. That he started in hot haste to avert what seemed to him a very grave and emergent danger at Johannesburg, where he thought he would be joined by a large force, seems undoubted. Until all the antecedent and attendant circumstances are known, however, it is impossible to pronounce any just and honest verdict. That the expedition was a remarkable one and characterised by the greatest audacity and gallantry is undoubted. The altogether disproportionate number of killed and wounded on the side of Dr. Jameson's force, even under the very exceptional circumstances of the case, is one striking feature, and another is the large proportion of the killed to wounded in his force. The fighting took place on Jan. 1st, and continued till night, and on the afternoon of the 2nd Jameson's force—worn out with fatigue, half famished, and without ammunition—surrendered. How many of the wounded perished during the night with little or no medical aid we do not yet know. Nor did this unexpected series of events end here, for the course taken by the German Emperor and his seemingly precipitate and ostentatious intervention in the Transvaal episode constituted another great public surprise. With these matters, in addition to the condition of Turkey and Armenia and the Ashanti expedition, the various departments of the State have been pretty fully occupied of late, and the new Commander-in-Chief and War Minister have also had something to claim their attention. One thing seems clear at the present time—namely, that the naval and military forces of this country promise to absorb any surplus in the hands of the Chancellor of the Exchequer, and the hopes of a diminished income-tax will be dissipated by all these war alarms.

"THE LANCET" RELIEF FUND.

THE "Application Form" of THE LANCET Relief Fund will be found in our present issue, and can be readily detached should occasion arise for its use. We again take the opportunity of asking those of our readers who may have occasion to employ the form or to sign one of the required accompanying certificates to carefully note the conditions on which applicants become entitled to a participation in the benefits of the Fund. All applications should be made to the Secretary, Mr. Edward Davies, THE LANCET Offices, 423, Strand, London.

THE SEARCHLIGHT OF PHOTOGRAPHY.

EVERYONE remembers what Mr. Samuel Weller said in reply to the question put by Serjeant Buzfuz, "Have you a pair of eyes, Mr. Weller?"—"Yes, I have a pair of eyes," replied Sam, "and that's just it. If they wos a pair o' patent double million magnifyin' glass microscopes of hextra power, p'raps I might be able to see through a flight o' stairs and a deal door, but, bein' only eyes, you see, my wision's limited." In Sam Weller's day it is safe to assert that such an instrument was not available, and many will be sceptical even in these enlightened days as to whether it is possible to see or to bring to view an object which is situated behind a deal door. Yet this has virtually been accomplished, if we are to believe an announcement from Vienna this week. Thus, it is reported that Professor Röntgen, the professor of physics at Würzburg University, has discovered that a certain kind of light, while it will penetrate wood and the flesh of men and animals, will not penetrate bones and metals. The special kind of light which appears to be endowed with this remarkable differentiating property is obtained by passing an electric spark through a vacuum tube. As far as we can gather, a photograph may be obtained of metals enclosed in wood, or of the bones of a man's hand, by simply interposing these objects between the luminous vacuum tube and sensitised paper. If this be so, then, bones and metals being impervious to this light, a print will be produced which will represent the object in white, and the wooden or fleshy covering, as the case may be, as a sharp dark border in strong relief. Such results, we learn, have actually been obtained, both with metals enclosed in wooden boxes and with the bones of a living hand. In how many ways such a discovery might, if it be true, be turned to the highest account we cannot at this juncture pretend to say. For us it must possess the greatest possible interest, even though it contain only the shadow of a promise of affording a means, to quote one instance, of finding the locality of a bullet embedded in the flesh without causing the pain necessarily inflicted by probing for its whereabouts. At any rate, whether these applications are practically impossible or not, we have evidently advanced since Mr. Samuel Weller's time, since it is announced that means have been found for bringing objects enclosed in wooden cases to view, and that to all intents and purposes amounts to "seeing through a deal door."

"CRUELTY TO RAILWAY PASSENGERS."

UNDER the above heading a series of letters has lately appeared in our contemporary, the *Times*, on a subject in which THE LANCET has always taken the greatest interest. In 1862, the year in which the late lamented founder of THE LANCET, Mr. Thomas Wakley, rested from his earthly labours, we held an exhaustive inquiry into the influence of railway travelling on public health, and from time to time, as occasion has arisen, we have directed attention to the inconveniences and evils borne by the too patient railway traveller. Much has been done since those early days of railway travelling, when we published our Commission, but many things remain in almost the same primeval state as then, and the indignation of the public which is shown by its letters to the daily press seems to be totally ignored by the companies. One of the evils of which

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complaint is made refers to the antiquated footwarmers, and their lack or uselessness is a constant complaint of passengers during the winter months. Quite recently a case came under our notice where on one of the southern lines a footwarmer was supplied which flooded the carriage with water in consequence of a leakage. A *douceur* to a porter soon procured the exchange of the footwarmer, but the heat from the other warmers in the carriage caused the water on the floor to evaporate and fill the compartment with vapour. In addition to this the traveller was subjected to the inconvenience and danger of a draughty carriage—a characteristic of the carriages on lines south of the Thames—and was probably only saved from the effects of a serious chill by precautionary measures on arrival home. The lighting of our carriages, too, stands in urgent need of reform, as do also their ventilation and proper cleansing. These do not by any means constitute the whole of the grievances complained of by the railway traveller, but they are the things which obtrude themselves most on his notice, and to which he from time to time calls attention by a letter to the daily press. If the whole of the travelling public would unite in protesting against their treatment by the railway companies good results would immediately follow. The apathy of the British public towards that which immediately concerns itself is proverbial; nearly the whole of its woes result from its indifference as a body, and while its outbursts of indignation are spasmodic and isolated the companies are not very likely to mend their ways.

ENTERIC FEVER AT ST. PETER'S HOME, MAYBURY, WOKING.

IN the summer of 1895 a somewhat remarkable outbreak of enteric fever occurred at this institution, and Mr. Wellington Lake, the medical officer of health of the district, has issued an interesting report upon it. The institution has for its object the treatment of respectable sick women suffering from non-infectious illnesses which require skilled nursing, and its population, all female, consisted at the time of the outbreak of 26 of the staff and 80 patients. The main portion of the building, the Old Block, was erected in 1885, and the New Block, with which all the cases appear to have been connected, in 1892. From the date of its opening the home had been free from enteric fever, but between June 4th and Aug. 2nd (fifty-nine days) there were 10 patients attacked in the home and 2 who developed the disease immediately after leaving; there was 1 fatal case. A careful examination into the possible causes of the outbreak led to the elimination of water, milk, and other foods, the main factor which seems to have been potent for harm being defective drainage, while personal infection is held responsible in one case. The water-closets and slop-sinks in the invaded block were, it appears, liable to anti-syphonage, while the ventilation pipes were defective in their joints. After the drainage system had been cut off, the attacks, save those already incubating and one due to personal infection, ceased. From these facts Mr. Lake considers that the defective drainage was responsible for the outbreak, and on further inquiry it was elicited that on March 9th and 13th respectively—i.e., nearly three months before the notification of the first case—nurses, convalescent from enteric fever, but certified as free from infection, were admitted into the home. It is supposed that one or other, or both, of these were instrumental in specifically infecting the drains, and that the infected sewer air subsequently found its way through means of the defects referred to into the new block. If this be so, the outbreak brings out two interesting points—i.e., the conveyance of enteric fever by sewer air in spite of the somewhat negative results of recent bacteriological experiments in this direction, and the long period which elapsed between the infection of the drain and the notification of the first case. It also raises an interesting point in reference to the persistence of infection in the excreta of patients convalescent from enteric fever. We must confess that the perusal of this interesting report has raised a question in our minds as to whether personal infection may not have been a more potent factor in the outbreak than it is accredited with in the report, but we expect there are numerous reasons against this view. We note, however, that there has apparently been an exceptional incidence of the disease upon the staff (7 attacks amongst 26 persons) as compared with the incidence upon the patients (5 attacks among 80), a fact which would seem, perhaps, to indicate that those who have been in an exceptional degree brought into contact with infected excreta and articles suffered most severely. This marked incidence, however, may be due to the staff having formed a large proportion of the population of the new block. We notice, also, that in two instances nurses in attendance upon the sick were themselves attacked. Under any circumstances the outbreak is instructive in having occurred in an institution of comparatively recent construction, situated in a favourable position, and supplied with a pure water. The defective drainage, however, shows the necessity for skilled inspection even in institutions such as these.

"PHYSICIANS AND THE CONFIDENCES OF THEIR PATIENTS."

UNDER the above heading the *New York Medical Record* says that the Circuit Court of Michigan has recently decided that a physician is obliged to testify in regard to the ailments of his patients in a court if compelled to do so. This old question arose, in this particular case, in connexion with a lawsuit by an insurance company against an insured person for a misrepresentation as to his physical condition. Our contemporary seems surprised at the decision of the Michigan court, but, surely, it is in accordance with both law and justice. A medical man may not be bound to go out of his way to expose the falseness of a patient, but he is not absolved from the liability to give evidence in a court of law on the point, and he is under, at least, the ordinary obligation of all men to speak the truth. Glenn, in his "Manual of the Laws affecting Medical Men," page 282, says: "It was decided nearly a hundred years ago that a medical man has no privilege to avoid giving in evidence any statement made to him by a patient, but that he is bound to disclose, when called upon so to do, every communication, however private and confidential, which has been made to him while attending in his professional character." It is a different thing to decline on behalf of a patient to give evidence, from professional knowledge, of his condition, say to an insurance office. The insurance office cannot compel such evidence. It can put its own construction on the refusal to give it, and it can apply any other medical tests it likes to a person's condition applying for insurance. But there is no claim to the report of the patient's private adviser, unless with the patient's consent.

GIPSIES' TENT LIFE.

A REMARKABLE story was told at an inquest at Portsmouth on Jan. 1st. A child had been overlaid, and the coroner's inquiry elicited the fact that a family of eleven persons lived in a tent in a brickfield. The tent was 16 ft. by 12 ft. The father and mother and the infant occupied one-third; a daughter aged nineteen, who had an infant eight months old and said she had never been to school, took up another part, together with seven brothers and sisters. There was a coke and coal fire in the middle, the smoke going out of a hole in the

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top. The girl said she was present when the child was born, but "the children were turned out." She said there was no curtain, but the father said the place was partitioned off into "two bedrooms and a kitchen in the middle." The inhabitants, it should be added, slept on mattresses on the floor. A medical man who had visited the tent said it was fairly ventilated, and that the overcrowding had nothing to do with the death.

TRAUMATIC CEPHALHYDROCELE.

IN the *Edinburgh Hospital Reports* of last year Mr. Hogarth Pringle has a paper in which he gives an account of two cases of this somewhat unusual condition. The first was that of a man aged twenty at the time of his admission to the Edinburgh Royal Infirmary under the care of Mr. Annandale. The history was that at the age of sixteen months the patient had fallen down an area a distance of fourteen feet. He was unconscious when picked up, and blood was oozing from both ears and from his nose. There was a large swelling over the left side of the head, but no scalp wound. For a long time after the accident the patient was dull and stupid, but always able to recognise his parents. About three months after the accident he had his first fit. In this he was said to have lost consciousness, but not to have been convulsed. Fits recurred at varying intervals, and were then accompanied by convulsive movements of the limbs which were stated to begin in the left hand and to be followed by loss of power on the left side. The parents could not say how long after the accident pulsation was noticed over the seat of the swelling which succeeded the fall. On admission he was found to be well developed and fairly proportioned, but the left side of the body was not so well developed as the right. Mentally he was distinctly deficient. He was able to read and write and could understand what was said to him, but he was slow of comprehension. The knee-jerks were exaggerated, but no foot-clonus was present. The ocular fundi were normal. On the left side of the skull was a pulsating tumour with a "gutter" running downwards and backwards for two and a half inches. No unusual or significant sensation was produced by pressure over this swelling. The parents being anxious that an operation should be performed in the hope of improvement, Mr. Annandale dissected back a skin flap and found a lax-walled cyst over the upper area of the depression. This was opened, and a large quantity of clear, yellowish fluid escaped. An aperture was found in the skull large enough to admit the little finger. The patient was much collapsed after the operation, and at night peculiar movements of the limbs on the left side set in. He never regained consciousness and died early the following morning. At the necropsy the dura mater was found to be firmly adherent round the margin of the opening in the skull. There was an opening at the junction of the parietal, occipital, and temporo-sphenoidal lobes through the brain substance at a point corresponding to the opening in the skull. This led into the left lateral ventricle, which was considerably dilated. There was some blood in the middle fossa of the skull, the convolutions of the left side were not so well developed as those of the right, and the cerebral tissue was sclerosed. No explanation was found in the condition of the brain after death to account for the left-sided weakness and convulsions which were present during life. The second case was that of a female child aged four years who at the age of one year had also had a fall down a stair. When found she was unconscious and had a swelling above and in front of the right auricle. There was no bleeding. Three months later the swelling was incised, but only dark blood came away, and for a few months it remained absent. After that, however, it gradually returned, and at the time at which she came under observation there was a smooth, oval swelling 2 in. long by 1¼ in. broad. There was feeble pulsation which ceased with pressure over the carotids. There were no fits and no apparent mental impairment. A hypodermic needle was introduced into the swelling and a syringeful of clear, yellow fluid withdrawn. This fluid was found to reduce Fehling's solution and was considered to be cerebro-spinal fluid. There was no change in the swelling at first, but when the patient was seen a year after the puncture it was much smaller, without pulsation, and there seemed to be at one point a small opening in the bone. Mr. Pringle gives a short account of the different views held as to this condition, and is himself of opinion that the opening in the skull depends upon the absorption of the bone devitalised at the time of the accident. The actual injury appears to be a simple fracture of the skull occurring in early life and attended with laceration of the dura mater and probably wounding of the brain. The condition, as we have said, is by no means common, and Mr. Pringle is fortunate in having observed two such interesting cases.

THE MIGRATION OF CHRIST'S HOSPITAL.

AFTER a silence of some months as to the plans of the managers of Christ's Hospital, who long ago decided to move the institution bodily to Stammerham, near Horsham, active preparations for the change have recently been in progress. The plans of the buildings are approaching completion, and the Horsham urban council has promised to give the management every assistance in the matter of sewage disposal, proposed to be included in the council's works. Three directors of the London, Brighton, and South-Coast Railway Company, with the chief engineer, general manager, goods manager, traffic superintendent, and other officials, together with several of the governors of Christ's Hospital, have visited the site of the new buildings in order to locate the station which it is proposed to erect for the convenience of the establishment. It is supposed that the station will be placed in the fork formed by the junction of the Guildford branch and the main line of the railway, with platforms for both branches, but nothing definite is as yet known on the point. The work is to be commenced early this year and to be completed within six months.

TREATMENT OF PNEUMONIA.

THE treatment of pneumonia by the local application of cold is now recognised and adopted by many physicians. The writings of Dr. Mays of Philadelphia on this subject are well known. In the *Medical News* of Philadelphia of June 24th, 1894, he presented a collection of fifty cases of acute pneumonia treated in this way, and then extended a general invitation to the profession for reports of cases of pneumonia treated by the local application of cold. He received 145 additional reports, making a total of 195 cases. In the *Times and Register*, Philadelphia, of Dec. 7th, 1894, he published a summary of these cases. Without paying attention to statistics of sex, age, range of temperature, &c., we pass to the mortality and to Dr. Mays' comments thereon. Among the 195 cases there were 7 deaths—4 males and 3 females—or a mortality of only 3·58 per cent. The oldest of these was seventy-four, and the youngest was sixteen years. Three were cases of double and four of single pneumonia. Dr. Mays remarks that, whatever opinion we may hold in regard to the value of any treatment, it is quite obvious that in the long run the verdict will favour that one which shows the smallest mortality rate; the other details, the reports of numerous observers, give the

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THE LANCET RELIEF FUND.

For Members of the Medical Profession and their Widows and Orphans when in Distress.

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ALMONERS.

THE PRESIDENT OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE PRESIDENT OF THE GENERAL MEDICAL COUNCIL.

THOMAS WAKLEY, F.R.C.S. Eng.

THOMAS WAKLEY, Jun., L.R.C.P. Lond.

HON. AUDITOR.

SIR HENRY PITMAN, M.D. Camb., F.R.C.P.

——:o:——

THIS FUND will be provided year by year in the month of January to the amount of at least £300 solely by the Proprietors of THE LANCET, and administered free of cost, for the purpose of affording immediate pecuniary assistance to Medical Men, or their Widows and Orphans, *in cases of Distress and Emergency*, by the grant of money by way of loans free of interest, or gifts, as the circumstances of the various cases may require.

Applicants must satisfy the Almoners of the Fund that they are qualified under the following regulation:—

* "The recipients shall be such persons as satisfy the Almoners that they possess one or other of the following qualifications—that is to say: (*a*) That the applicant holds a registered medical qualification, and that he has fallen into pressing need of immediate pecuniary relief; or (*b*) That they are persons who have been, previously to the date of application, legitimately dependent upon some person holding a registered medical qualification, and that they have pressing need of immediate pecuniary relief."

To ensure the utmost despatch, the "Application Form" upon the other side should be filled up and forwarded (in an envelope superscribed "THE LANCET Relief Fund") to the Secretary, Mr. EDWARD DAVIES, THE LANCET Offices, Strand, London, W.C.

The application should be accompanied by two separate testimonials, one from the Clergyman of the Parish or other resident Minister of religion, and one from a registered Medical Practitioner, stating—that the application addressed to the Almoners has been read, how long they have known the applicant, and that they believe the statement to be perfectly truthful, and such as may be acted upon without further inquiry.

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Private and Confidential. *No.* .....

APPLICATION FORM.

To the Almoners of the Lancet Relief Fund.

The applicant should here state shortly:—

1. The nature of the emergency that has arisen.

2. The circumstances out of which it has arisen.

3. The amount of the grant desired, and whether by way of loan (free of interest) or of gift.

4. If by way of loan, state when the loan will be repaid; and from what source the funds to repay it are expected to be forthcoming.

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5. Whether the applicant is entitled or able in the circumstances which have arisen to look to any other source of assistance; and if so, what is the expected nature and extent of such assistance.

6. Whether the applicant is receiving, or has received during the past six months, pecuniary aid from any Medical Charity.

7. State how the applicant is qualified to receive assistance; vide regulation* on first page.

8. Particulars of:

Applicant's age

Number in family

How many are self-supporting

How many are partially dependent

How many wholly dependent

Applicant's Signature

Address

Date

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No. _____

THE LANCET RELIEF FUND.

Name _____

Address _____

_____

Received _____

Considered _____

Resul _____

Date _____

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mortality from pneumonia under various methods of treatment, which varied from 30 per cent. to nothing. What conclusions, he asks, are we to draw from such a varying death-rate? Are we to believe that all patients suffering from pneumonica recover under certain methods of treatment, and that a large proportion of them will necessarily die under others? No one would be justified in making quite such a reckless assertion, yet it must be admitted that the truth lies somewhere between these two extremes. It is a natural question to ask what proportion get well under no treatment whatever, and what proportion die under such circumstances. In 1844, 1845, and 1846 Dr. Dietl, a Viennese physician, treated 189 cases of pneumonia practically without medicine, with a death-rate of 7·4 per cent. From 1847 to 1850 he treated a second series of 750 cases, with a death rate of 9·2 per cent. Dr. Mays quotes also from homœopathic hospitals, regarding the treatment there adopted as equivalent to the "let-alone or do-nothing treatment." The mortality in these institutions varied from 7·3 to 12·55 per cent.; if these figures are reliable—and there is no evidence that they are not—they show that, as a rule, the natural tendency to recovery in pneumonia is about 90 per cent. But these figures would only seem to apply to an ordinary aggregate of favourable or unfavourable cases of pneumonia, and not to exceptional instances like those which are met with in fatal epidemics of pneumonia, or in a large number of successive cases of alcoholic, senile, or latent pneumonia. Dr. Mays compares the results of the ice-cold treatment of pneumonia with those which have been obtained from other forms of treatment, and maintains that the former are infinitely more satisfactory than the latter, for cold, he says, has a marked and decided influence on the pneumonic process, not only in bringing it to a favourable termination, but in materially shortening its course. He summarises the action of cold in comparing the chief dangers from pneumonia thus: "First of all it reduces the pyrexia, strengthens the pulse, tones up the heart, diminishes the pain in the chest, alleviates difficulty of breathing, and gives greater comfort to the patient. ..... In virtue of its power to stimulate nerve functions and to contract small bloodvessels it promotes the pulmonary circulation, relieves stasis, hastens resolution, and disperses the products of exudation."

"A BEAUTIFUL WORLD."

CONSIDERING the rapid progress which has been made in recent years in public education by university extension and schools of art, it is surprising that the public should tolerate the hideous forms and gaudy daubs of colour which disfigure earth, sea, and sky, and must offend the eye of all but those in whom the lowest development of artistic sense is absent. From an artistic point of view much might be said against the practice of the modern advertiser, but we leave this aspect of the subject to those whom it more immediately concerns. From the point of view of public health we protest strongly against the desecration of beauty and the fostering of ugliness in this manner. It is not enough that the man in health should have his worries added to during the day by having to puzzle out on the railway line by which he has been travelling the name of the station of his destination, in rather small type and hidden among a mass of letterings apprising him of the fact that Somebody's Sale is now on or that his children will never thrive unless they are surfeited on Somebody's Food; but on his arrival at the station of his suburban home after the day's toil he is informed by some specious advertisement that he will probably not live another day, or if he does that he will be in great danger of losing his mental balance, unless he forthwith purchases a bottle of Viper's Vicarious Vitaliser, or some other nostrum whose alliterative title itself is calculated to bring about the ills it is supposed to cure. It is not to the healthy, however, that the most harm is done; it is to the convalescent or the wearied who leaves town for rest and quiet to recoup jaded energies and restore exhausted nature. He arrives at some erstwhile quiet watering-place, hoping to forget the city which he has left; but, alas, he has scarcely alighted on the platform ere a flaming poster informs him that "*Puff's Pickles* are Paramount," and forthwith thoughts are carried back to the town life and all its perplexities and worries. Arriving at the sea front, the traveller ensconces himself under the shadow of the cliffs, and, lulled by the gentle murmuring of the waves as they ripple on the shore, watches the pretty yacht as it nears the land and he falls into a reverie. From this peaceful state, however, he is rudely awakened, for the white sails of the vessel which he has been likening to the wings of a bird, or other poetic fancy, prove to be but the medium of the ruthless advertiser, and the mind of the weak receives a rude shock when he learns that the whole of his ills have been caused by his omission to invest in a box of pills whose worth is fabulous. The picture we have given is not an exaggerated one; the evil is serious, and the damage done to the health of the convalescent under such circumstances is difficult to estimate. We, therefore, welcome "A Beautiful World," under which title the National Society for Checking the Abuses of Public Advertising issues its official organ.

HEMIPLEGIA AS A RESULT OF GONORRHŒA.

IN a recent number of the *Neurologisches Centralblatt* Dr. Ludwig Bruns of Hanover relates a case of somewhat unusual character. He remarks that gonorrhœa has as occasional complications serious affections of the nervous system only recently recognised. Fournier has described gonorrhœal sciatica, Hayem and Parmentier, Chavier and Tevrieran, Spillmann and Haushalter, and Leyden (and Gowers in this country might have been mentioned) have published cases of myelitis apparently closely connected with gonorrhœa. Engel-Reimers has also described cases of gonorrhœal polyneuritis as well as a case of meningitis. Tambourer has described a case of double hemiplegia following phlebitis occurring in the course of gonorrhœa, and Pitres mentions two similar cases of hemiplegia also occurring in the course of the same disease. Dr. Bruns's case was that of a young woman aged twenty who immediately after her marriage became infected with gonorrhœa, which, in spite of treatment, caused perimetritis and salpingitis. Soon after this, and without any warning, she was suddenly attacked with convulsions in the right side of the face and tongue and in the right upper limb, especially the hand. The leg at this time was apparently not affected. These attacks were repeated, and during the attacks and for a little time after them there was aphasia. There was paresis of the right face and of the right arm, and the right leg later became similarly affected, so that when she was seen by Dr. Bruns there were right-sided hemiplegia, complete motor aphasia, and slight blunting of sensibility. There was no headache or vomiting, and the ocular fundi were normal. There was no hemianopsia, the heart was sound, and there was no sugar or albumin in the urine. After this there was gradual improvement, especially in regard to speech, but the motor affection of the limbs still remained distinct and considerable. Dr. Bruns concludes that, looking at the history of the sudden onset, accompanied by epileptiform attacks, the condition determining the hemiplegia was an embolic one, and that the embolism had its origin at the focus of gonorrhœal inflammation in the Fallopian tube. But it is difficult to see how this could happen. An embolus breaking off from an inflammatory focus in the region of the Fallopian tubes would naturally have to traverse the

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pulmonary capillaries before it could reach the brain. This, of course, is impossible, and if such an embolus had travelled to the heart in the large veins there might have been a pulmonary apoplexy. But how such an embolus could get to the brain we fail to see, and it seems more feasible to ascribe the hemiplegia to thrombosis occurring in cortical vessels, the thrombosis being probably determined by the morbid blood state to which the gonorrhœal inflammation had given rise.

THE PLACE OF RESEARCH IN EDUCATION.

Science Progress for January contains an interesting address delivered at a metropolitan polytechnic by Mr. H. E. Armstrong. He points out how fast we are losing our commercial prosperity because we will not, whether we make butter or cheese or leather or anything else, study scientifically the factors which go to ensure success. Concerning our present methods of education he says (and we only wish he would reprint this portion of his article and send it to the School Board) :—

English boys and girls at the present day are the victims of excessive lesson learning, and are also falling a prey, in increasing numbers year by year, to the examination-demon which threatens to become by far the most ruthless monster the world has ever known either in fact or in fable. Ask any teacher who has to do with students fresh from school his opinion of them : he will say that in the great majority of cases they have little if any power of helping themselves, little desire to learn about things, little if any observing power, little desire to reason on what they see or are called on to witness ; that they are destitute of the sense of accuracy, and satisfied with any performance, however slovenly ; that, in short, they are neither inquisitive nor acquisitive, and as they too often are idle as well the opportunities offered to them are blindly sacrificed. ..... Boys and girls at school must be taught from the very earliest moment to *do* and to *appreciate*. It is of no use our teaching them merely *about* things, however interesting—no facts must be taught *without their use* being taught simultaneously ; and, as far as possible, they must be led to discover the facts for themselves.

These are admirable words and should be handed to every teacher in the kingdom.

GENERAL PARALYSIS IN EARLY LIFE.

THE occurrence of general paralysis of the insane at a very early age has now been recognised for some years, and in a current number of the *Neurologisches Centralblatt* an abstract of a Jena dissertation by Dr. Clemens Streitberger appears, in which an account is given of two cases of this character. The first is that of a young woman aged twenty-one, whose conduct underwent a sudden and complete change, and she became at one time excited, at another absent-minded. In the course of three years she developed unsteadiness in walking, tremulous speech, and tremor in the tongue and hands. The knee-jerk on the right side was exaggerated and lost on the left side, and she became drowsy and apathetic ; she also had convulsive seizures, lasting for hours, and accompanied by loss of consciousness and relaxation of the sphincters. After this, great psychical change and affection of the cranial nerves took place, with paresis of the extremities and loss of control over the sphincters of the bladder and bowel, bedsores, and rapid emaciation. At the necropsy the cerebral membranes were found to be thickened, the brain atrophied, the ventricles distended, and the ependyma granular. In the cord the posterior and lateral columns throughout were degenerated, and the anterior columns also from the middle of the dorsal region downwards. The second case related was that of a young man aged eighteen, who had at that age to give up his situation in a warehouse on account of his inability to do the work he had been used to do. He then became dull and stupid ; his pupils were irregular in shape and did not react to light, and there was tremor of the tongue, unsteadiness of the extremities, and exaggeration of the reflexes. During the last three or four years there was great defect in intelligence, but a characteristic sense of well-being. Later there were convulsive attacks, sleeplessness, hesitating utterance, irregular handwriting, hemianopsia, difficulty in swallowing, and rise of temperature, rapidly leading to a fatal issue. After death the arachnoid was found to be thickened and discoloured, the ventricles being distended, the ependyma granular, and the dura mater pale. The grey substance of the cerebrum and cerebellum was also discoloured, and the cord altered. An analysis of 41 cases of general paralysis in youth shows that in 17 syphilis was certain and in another 6 probable ; nervous heredity was present in 21. Another curious fact was that of 36 cases of this variety of the disease 19 occurred in women and 17 in men, a strange contrast to what is the experience in the ordinary form.

STATE CHILDREN AND THEIR ANTECEDENTS.

OF all social problems none is, perhaps, more difficult than that relating to provision for State children. In our own country the subject has received a great deal of attention, and it is almost universally admitted that "the barrack system" is destructive of the best elements of child nature and the influences of home. Fourteen years ago the colony of New South Wales discarded this system for the boarding-out method, and the report of the Hon. Sir Arthur Renwick, President of the State Children's Relief Board, for the year ending April 5th, 1895, affords strong evidence of the superiority of the method which gives to the child such training as is only to be obtained in the family. From an economical point of view the boarding-out method, too, is to be commended. A striking feature exhibited in the report is the increased number of young children who have been placed under the control of the board during the year, and it is probably accounted for by the continued want of employment and the consequent depression and poverty of the working classes. In 1895 there were 365 more children under control than in 1894, when the number was 272 in excess of the previous year. During the official year under notice there was a total of 3174 children under the control of the board. An appendix to the report, showing the social antecedents of all children hitherto dealt with under the boarding-out system in New South Wales—a total of 6673—gives some instructive figures illustrating the part which crime plays in the making of State children. The number of cases where the father was dead or in gaol, and the mother of drunken or dissolute habits, was 212, and there were 30 cases in which both father and mother were drunkards. Prostitution and illegitimacy are answerable for some 314 cases. In most of the cases recorded one or both of the parents were dead or in gaol.

AT a meeting of the Pathological Society to be held on Feb. 18th Mr. William Anderson will read a paper on a case of Multiple Osseous Ankylosis of Obscure Pathology and Pathogeny. A discussion will follow on the Causation of Osseous Ankylosis of Joints in the Limbs and Spine. The honorary secretary, Mr. J. H. Targett, 6, St. Thomas's-street, London Bridge, will be glad to receive communications from anyone desirous of contributing to this debate.

THREE lectures on the Climate of the South of England will be delivered at Gresham College, Basinghall-street, E.C., on Jan. 21st, 22nd, 23rd, and 24th, at 6 P.M., by E. Symes Thompson, M.D., F.R.C.P. Lond., Gresham Professor of Medicine. The syllabus of these lectures indicates that Dr. Symes Thompson proposes to treat his subject, very

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properly, from the meteorological, and not the medical, point of view.

WE learn from our own correspondent in Egypt that cholera is still confined to a few villages in the Delta and shows a tendency to die out. However, during the week ending Dec. 24th there were in all thirty-three new cases reported, and there have been altogether thirty-two deaths.

H.R.H. THE DUKE OF YORK has consented to preside at a dinner in aid of the funds of the Victoria Hospital for Children at a date to be fixed by His Royal Highness—probably about the third week in February.

Pharmacology and Therapeutics.

CALAYA IN MALARIA.

DR. MAURAGE of Paris has made use of the extract of Anneslea febrifuga known as Calaya, a leguminous plant, in nine cases of malarial patients from Madagascar and Tonquin. Four doses of about half a drachm each were administered in syrup at intervals of two hours. The first dose always produced a diminution of the temperature varying from 1·4° to 2·5° F. After the second dose the temperature fell still further. This antipyretic action was not accompanied by any sweating or by depression. On the contrary, the patients expressed themselves as feeling far better than they had done when they had been given quinine in previous attacks. The temperature, too, never fell below normal. In three of the nine cases no return of the fever occurred. In five there were subsequent attacks of a very mild character, the temperature never exceeding 101·5°, while in one case only there was a somewhat severe attack two days later in which the temperature rose to 104·7°; the treatment was, therefore, repeated, with the result that no further attacks occurred. The same medicine was tried in two cases of phthisis. Here, though the antipyretic effect of the drug was manifested, the fever returned the day following just as before. Dr. Maurage, therefore, thinks that calaya cannot be considered as more than a palliative in non-malarial fevers, but that in malaria it may really be put down as a specific.

PHOSPHATE OF SODA IN NERVOUS AFFECTIONS.

A physician in Jerusalem who has charge of the municipal hospital there has employed with great advantage hypodermic injections of phosphate of soda in two special affections of the nervous system. One patient was a woman who was suffering from syringomyelitis. After a month's treatment, during which fifty injections were administered, the pain completely vanished, and sleep returned. The articular effusions also decreased to half their former size. The other patient was a man suffering from unilateral astasia-abasia (Charcot's "neurasthénie dimidiée"), and he was discharged recovered after twenty-five injections, which were administered once a day.

DIPHTHERIA AND THE METROPOLITAN ASYLUMS BOARD.

THE Metropolitan Asylums Board have published a provisional report by Dr. Sims Woodhead on the cases of diphtheria which were sent to the laboratories of the Conjoint Board of the Royal Colleges of Physicians (London) and Surgeons (England) for bacteriological examination from Jan. 1st to Aug. 31st, 1895. The importance of having such a bacteriological examination carried out in hospitals is, of course, obvious, but if any such doubt existed it would at once be dispelled on reading this report. So long as the diagnosis of diphtheria was based on the gross physical signs and symptoms of the disease it is evident that all statistics on the question are subject to most serious error, owing to the inclusion or exclusion of the milder throat cases, according to the individual judgment of the person charged with making the diagnosis. Thus an epidemic of diphtheria which was very virulent in type but restricted in range would, if it occurred at the same time as an epidemic of non-diphtheritic sore-throat prevailed, which was included under the same category, be regarded as a more widespread epidemic of mild diphtheria. In a similar way a hospital which included under the heading of diphtheria other cases of simple non-diphtheritic nature would naturally present a much lower death-rate than those in which these were excluded. Under these circumstances all attempts to compare the relative efficiency of different modes of treatment must fail, and further progress on these lines be greatly impeded. The importance, also, of preventing non-diphtheritic cases being kept apart and thus obviating their exposure to the infection by being placed in the same wards as the diphtheria patients must be quite evident. Perhaps, however, the most important *rôle* which the bacteriological diagnosis has to play in this relation is in determining when the throat in convalescent cases has become free from diphtheria bacilli, and the patient can be discharged with safety and no longer be a centre of fresh infection. As it has already been established that patients in the convalescent stage can retain for long periods the diphtheria bacilli in an active condition, it is of the utmost practical importance that the best local and general measures of treatment for their removal should be discovered and recognised, and this could only be attempted when the results were controlled by a constant bacteriological examination.

The figures given regarding the different hospitals are unfortunately not exactly comparable, since in many cases the clinical diagnosis does not appear to have been given at the time of bacteriological examination, and it is suggested in the report that it was afterwards based upon the result thus obtained; still, we can only judge from the figures which have been placed before us. The number of examinations made were 6408, and as these were obtained from 2936 cases it is apparent that a considerable number of re-examinations had been carried out either for the purpose of making absolutely certain of the bacteriological diagnosis where it seemed at variance with the clinical, or for the purpose of determining when a convalescent case might be discharged with safety. It was found that in only eighty-five cases did a re-examination reveal the presence of diphtheria bacilli where a negative diagnosis had been previously recorded, and this may be ascribed to failures in the *technique*, such as to a mis-inoculation or even, perhaps, to the patient having developed the disease while in hospital. The very full and exhaustive tables which are appended show clearly the trustworthiness of the bacteriological diagnosis, as the percentage of cases in which the original diagnosis had to be reversed was very small; still, no one would seriously contend against the advisability of controlling by re-examination all doubtful cases. The assistance which it gives in confirming or reversing the clinical diagnosis is brought out most clearly where the diagnosis was still in doubt. Thus, out of 451 cases which were regarded as diphtheria in hospital, in 51 the presence of diphtheria bacilli could not be demonstrated, while out of 1763 cases in which the diagnosis was doubtful or was not stated no less than 1112 were found bacteriologically to be true cases of diphtheria. It is interesting to observe how far the clinical diagnosis agreed with the bacteriological in the different hospitals. This will be seen in the following table, in which we have computed the percentages of cases which were recognised bacteriologically as diphtheria from among those which were returned as clinically doubtful or in which no diagnosis was given by the hospital authorities:—

	Per cent.		Per cent.
North-Eastern Hospital ...	38	Eastern Hospital	61
North-Western Hospital ...	71	Fountain Hospital	69
South-Eastern Hospital ...	68	Western Hospital	60
South-Western Hospital ...	56		

The above figures sufficiently clearly indicate the necessity for a bacteriological diagnosis and proves to what an extent the opinions of experts may vary as to what is clinically diphtheria. There are no doubt many other interesting facts which might be deduced from the figures given in this provisional report, and we feel sure that Dr. Sims Woodhead will make full use of the immense collection of material at his disposal in the complete report on the year's work which is promised.

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THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER II.

The Profession at the Beginning of the Century.—The Privileged Classes and the Rank and File.—The Staff of the United Hospitals.—Edward Grainger.—The Private Medical Schools.—The Medical Student of the Period.

THE profession at the time that Thomas Wakley joined it—viz., 1815—was sharply divided into two classes: those who were going to be leaders, and those who were going to remain in the rank and file. Now and again a man whose original conditions ought to have limited his aspirations would break through these conditions and become a leader when in the ordinary course of events he should have remained a private, but this occurred infrequently. The almost invariable rule was that those who were specially picked out by circumstances quite independent of merit for promotion received that promotion, less fortunate individuals remaining in the shadow of obscurity, whatever their claims to success. Of the men who were predestined to become leaders there were two divisions, corresponding to the two great divisions in the profession of healing—the physicians and the surgeons. The predestined rulers in medicine were the men who had acquired a recognised university degree and subsequently to graduating had been elected to the Fellowship of the Royal College of Physicians of London. Their surgical counterparts started in a less dignified, if more facile, manner on the saunter to a successful future. They became apprenticed after payment of large fees to the eminent surgeons holding posts at the different hospitals, hoping to succeed, and very generally succeeding, to the appointments of their masters. This is a somewhat crude way of stating the methods of procedure, but in the main it is true. The fees might be waived because the young man was a relation or the son of a friend of the great surgeon, but from a stranger they were exacted, and the consideration received in return was not only the ordinary instruction due from master to pupil, but a very definite promise of the reversion of some of the senior's emoluments. The understanding that the pupil should succeed his master in any hospital appointments the latter might hold was generally a tacit one, though occasionally some sort of documentary evidence of the contract, something in the nature of a bond, is known to have been in existence. The eminent surgeons could not absolutely give away the hospital appointments, which were then, as they are now, in the gift of the lay governors of the hospital, but they could, and did, bring influence to bear upon the governors, and with wrong motives, or under circumstances that had the colour of wrong motives. Each man would naturally desire the election of the candidate from whom he had received an actual pecuniary consideration, for the sums thus paid were large, not infrequently amounting to £500, and the claims of merit would give way to those of expediency. The lay governors were canvassed, and it was not the best man who won, but the man whose backer most clearly acknowledged the claim upon him and so most urgently advocated the candidature among the persons possessing votes.

To sum up, hospital appointments, with all their advantages, direct and indirect, honourable and pecuniary, were given to certain Fellows of the Royal College of Physicians, family and personal influence counting for much in the matter; examinerships and lectureships at the Royal College of Surgeons were given to certain hospital surgeons; and these hospital surgeons were elected to the appointments, which qualified them for their professorial duties, largely in consequence of their ability to pay big fees upon their introduction to bigmen. The man who could not pay these fees or afford a university education was fated to remain in the rank and file of his profession. There were of course exceptions, and the names of one or two will readily occur to all, but the medical corporations were slow to discover merit unless it was brought to their notice by approaching them along the usual avenues. Now and then the public would force upon their attention one who otherwise had no claim upon it, but these cases were rare, though not so very rare as they are now; and it was just as well then that they were rare as it is well now that they are nigh impossible of occurrence, for great fame won first from the laity is but seldom the proportionate reward of merit, and the knowledge that it can be readily obtained must ever seduce many from the highest aims. It is undoubted that at the beginning of the century members of the profession appealed more directly to the public for an appreciation of their scientific talents than would be deemed seemly in these days, and that, to the shame of the medical world, it was occasionally left to the public to point out to the profession who were their greatest men.

Thomas Wakley did not belong to the privileged classes. He came to London to make his own way for himself, with no university course behind him and no friends within the ring-fence of hospital administration. A brother of his brother-in-law, Phelps, to whom he had been apprenticed, consented to look after him and to be the channel through which his modest allowance could be supplied to him, but Phelps could not assist him in the prosecution of his studies, and was possessed of no influence in the medical circles of London. That he was greatly trusted by his family—trusted to an extent that no boy of his age save one who had shown himself capable of meeting considerable responsibilities would have been—is proved by the fact that he was virtually left to himself from the beginning of his London life, as far as his professional career was concerned. The united hospitals of Guy's and St. Thomas's were recommended to him as the best institutions to "walk," as the phrase then went, by the gentlemen to whom he had been apprenticed, but nothing was definitely settled for him, and that he had a power of veto is proved by the fact that before entering any school he went round to listen to the various lecturers that he might have some personal experience to guide him in his choice. At that time it was usual for the medical student to take out a course of lectures here with one man and there with another. The Borough or United Hospitals (viz., Guy's and St. Thomas's), St. Bartholomew's, and London, were the only institutions at the time that had a medical school attached to them. At the other hospitals students received the privilege of walking the wards and attending the practice of the charity, but their scientific education had to be obtained elsewhere. Young Wakley abided by the selection of his advisers to this extent that he joined the school of the United Hospitals, one of the three places where he could have obtained a complete curriculum under one jurisdiction, but he decided to supplement his hospital course by attending the private school of the Graingers. He chose the hospitals because of his admiration of Sir Astley Cooper as a teacher, while the choice of a private school was one of convenience, the famous anatomical academy of the Graingers being in Webb-street, Borough, hard by.

The United Hospitals were at that time at their zenith. The story of their union is as follows: The students of Guy's

[1] Chapter I. was published in THE LANCET of Jan. 4th.

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Hospital had by courtesy been allowed to attend the operations at St. Thomas's Hospital, and St. Thomas's had made a similar concession to Guy's. But in 1768 it was formally resolved that the pupils of each hospital should have the liberty of attending not only the operations but the surgical practice of both institutions, and the money received in fees was to be divided in certain proportions between the six surgeons of the hospitals and the two apothecaries who did their behests. From which it will be seen that the amalgamation of the two schools did not extend beyond their surgical practice. The staff of the hospitals at the time when Thomas Wakley entered as a student was a decidedly good one generally, though on its surgical side it formed a remarkable example of the part that nepotism and purchased favour played in the securing of appointments—ugly facts to which allusion has already been made. Sir Astley Cooper, or Mr. Astley Cooper, to be strictly accurate, for he did not receive his baronetcy until six years later, ruled supreme in 1815. He had been the apprentice of the elder Henry Cline, a surgeon of almost equal celebrity in his day, and lecturer on anatomy and surgery to St. Thomas's Hospital. In 1800 Cooper became his master's colleague as lecturer, and was appointed surgeon to Guy's Hospital. In 1812 the elder Cline resigned, and his son, Henry Cline junior, became surgeon to St. Thomas's Hospital and followed his father as joint lecturer with Sir Astley Cooper. Sharply on this came the election of three of Sir Astley Cooper's nephews—viz., C. Aston Key, Bransby Cooper, and Frederick Tyrrell—to different posts, while the next surgical vacancies were filled by his apprentice, Benjamin Travers, and J. H. Green, Henry Cline's cousin, respectively. The aggregate ability of this group of surgeons is certain, and their individual skill was only once called into serious doubt; but they owed their elections to other claims than their merits.

Thomas Wakley attended the joint anatomy classes of Henry Cline, senior, and Sir Astley Cooper during the autumn session of 1815 and the spring and autumn courses of 1816. These were delivered at St. Thomas's Hospital, and his signature in witness of his attendance at them is in the books of the hospital, and is a flowing and very exact facsimile of the signature of his maturer years. At Guy's Hospital he attended Sir Astley Cooper's lectures on the Practice of Surgery, where he also did his surgical dressing and ward work. In those days students dissected and acted as dressers at the same time, an arrangement that might be calculated to impress the knowledge of pathological anatomy upon them, but could not fail to have been attended with some risk to the patients. His dissecting was chiefly done at the school of Edward Grainger. Edward Grainger was a thoroughly good anatomist. His laborious life and early death precluded him from literary achievement, but his memory was green in the profession for a generation after his death, and, in medicine at any rate, that comes very close to fame. He was essentially a teacher on broad lines, recognising what so many teachers fail to recognise, that it is badly spent time to instruct a student how to keep in the middle of the road or where to avoid a pitfall unless the road itself has been previously pointed out. Thomas Wakley's own account of his teacher in the columns of THE LANCET[3] bears this out very well. After recording the extraordinary success which Edward Grainger met with as a teacher he continues:—

"Though in his lectures he did not dwell much on the minutiæ of anatomy, we know that this was done for the express purpose of not perplexing those who were only beginning their studies. His lectures were devoid of many physiological illustrations, ... but his great *forte* consisted in his power of communicating his knowledge to others. His descriptions were clear and concise, and his arrangement strictly logical."

This praise of his teacher, which, it must be admitted, was a little modified by subsequent expressions occurring on the same page, is the only direct allusion that the first Editor of THE LANCET ever made in these columns to his experiences at a private anatomy school. But these private schools played a regular part in the medical education of the London student of the day and for some time to come, and, although coincident with the institution and development of schools in direct connexion with all the great general hospitals of the metropolis, they became superfluous and disappeared, they were at the time responsible for a condition of manners among the students, of morals, of ill, and of good, that lingered for a quarter of a century after their dissolution. The history of these schools—Carpue's School, the Gerard-street or Dermott's School, Lane's School, the Webb-street or Graingers' School, the Aldersgate School of Tyrell and Lawrence, the Windmill-street School, Brookes's School, and others—will now never be written, for no succinct record of them has been handed down by anyone with personal knowledge of them. Yet such a history, if the proper person were alive to write it, would form a most interesting chapter in an exhaustive study of the rise of medical education in England; in fact, it would form the first chapter in such a study.

Each of these schools was conducted generally in connexion with a hospital, although they were strictly private enterprises. The Royal College of Surgeons and the Society of Apothecaries accepted work done at them and attendances registered at them as evidence of medical study. There were in those days no formal signatures required to testify that a man had duly heard a certain number of lectures or been in the wards a certain length of time. There were no precautions taken against personation at the examinations, a thing which occurred frequently, and little attempt was made to gauge a candidate's knowledge before turning him loose upon the public with a licence. Testimony to certain apprenticeship and to payment of fees for certain lectures and the privilege to attend the practice of a hospital had to be forthcoming, and the rest was plain sailing. It was to meet the wants of a happy-go-lucky curriculum of this sort that the schools existed, and the looseness of the requirements of the examiners reacted upon the schools, so that they became hotbeds of a rowdy Bohemianism that was as undoubted in cold fact as it is, and ever will be, celebrated in comic fiction. There is nothing comparable to the life of the medical student in London, as fostered by the conditions under which he lived and studied, at the beginning of the century, save, perhaps, the life of the Parisian art student at that time and later. And what the studio of the professor, as depicted by Thackeray, Stevenson, and Du Maurier, was to the artist, the dissecting-room was to the medical students—a centre where all met on common ground—the ground of professional interest—and all vied with each other in the narration of episodes illustrative of their ingenuity under the stress of poverty, their coolness under the threat of the law, their personal courage, and their physical attractiveness. And all this inter-communication taking place in the dissecting-room bred a familiarity with repulsive objects which effectually did away with a proper regard for the decencies of life, and led to the interlarding of conversation with similes drawn from the mortuary table or suggested by the details of anatomical research. The result was the establishment among the mass of the London students of a regular and accepted tone of rowdiness and shiftlessness, which tone it became almost necessary for each man to assume, if he had it not, and

[3] THE LANCET, vol. i. 1824, p. 423.

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an act of *esprit de corps* to transmit to his juniors. Bob Sawyer and Joe Muff were not gross caricatures; they moved in the dissecting-rooms of the private schools, lived in the bars of Fleet-street, and had their being in the supper-rooms of Covent-garden — not, perhaps, as individuals, but most certainly as well-pronounced types. Their creators did not evolve them wholly from inner consciousness; they but dotted the i's and crossed the t's of a human document, not over-hard to read before their artistic amendment. When the medical students of much popular fiction are accepted at the present day, as they are occasionally by a public slow to mark the signs of the times, as a fair presentment of the modern aspirant to a medical career, all who know feel bound to rise up and protest angrily; but Bob Sawyer, Joe Muff, and the egregious Tom Delorme and their friends were drawn in a spirit of caricature and exaggeration, yet with no wild disregard of facts. The London medical students of 1815, when Thomas Wakley threw in his lot with them, were very much as Dickens drew them some ten years later, and the conditions under which student life was passed were responsible for much of the wildness and irregularity. The uselessness, in most cases, of aspiring to any great position in their profession, and the low standard of proficiency required of them by the examiners, were not calculated either to urge them to consistent work or to inspire them with much professional ardour. The herding together of great numbers of students at the private schools—sometimes a popular school would have as many as 300 nominal pupils in a session—did away with any attempts to provide individual attention, while the lecturers at these institutions were not, as a rule, in a position to insist upon the presence of their pupils, to enforce order when they were present, or to check insubordination. Those who cared to work might work, and those who did not want to work need not. All medical students were not dissipated rowdies—it is not desired to convey that impression—but a large proportion led lives that might well have ended in their becoming such.

Some of the foregoing may seem a digression from the course of a biography of Thomas Wakley, but to estimate his career aright it is necessary to understand his environment at all points.

(To be continued.)

THE ROYAL VICTORIA HOSPITAL, SOUTHAMPTON.—At a special meeting of the governors of this hospital on Jan. 2nd it was decided to abolish the ticket system. Formerly each subscriber of a guinea received four tickets of the nominal value of 5*s*. 3*d*., but in practice this has been found to be a purely fictitious value. It was said that in the days when the hospital was little more than a dispensary the plan had been a good one, but the system had not been successful since the establishment of beds. The chairman of the house committee (Dr. Roberts Thomson) said they wished to make the institution actually a free hospital. An amendment was defeated by twenty-seven votes to nine.

FOOTBALL CASUALTIES.—A young man aged twenty-four years, who received injuries while playing a match on Sept. 1st last at Fallowfield between the St. Mary's (Hulme) and Ladybarn teams, and subsequently taken to the Manchester Infirmary, died there on Dec. 28th, 1895, from a fracture of his spine.—While playing at Chester recently one of the Glossop forwards was removed from the field suffering from concussion of the brain.—A young man aged nineteen years, of Ombersley, died in the Worcester Infirmary on Dec. 31st from injuries sustained in a match on the previous Saturday.—While playing at Hoylake, on the 28th ult., for the Heswall against the Hoylake team, a young man fractured his leg and was conveyed to the Birkenhead Borough Hospital.—In a Northern Union match at St. Helens, Liverpool, on the 1st inst., between the St. Helens and Manningham teams, the captain of the former team sustained a "twist in the knee" and injury to the ankle.

THE LANCET
Special Sanitary Commission
ON
DISINFECTION.[1]

II.—AN IMPROVED MEANS OF APPLYING CURRENT STEAM FOR THIS PURPOSE.

FIRST and foremost in the interests of public health it is important that means of disinfection known to be satisfactory from the points of view of efficiency, economy, and simplicity should be at hand. We are continually being asked as to what, in our opinion, is the best way of carrying out on a practical scale the disinfection of bed linen, clothes, and other articles of every-day use. The use of chemicals is in most cases interdicted, because they may injure the fabrics to be treated, or because the materials are such as do not admit of exposure to chemically active vapours or liquids, or because these can never sufficiently penetrate the material so as to effect complete disinfection, or, again, because the articles are of such dimensions as to preclude treatment by this method. Undoubtedly disinfection by means of heat or of a hot innocuous gas, such as steam, is the most satisfactory way of dealing with infected articles. The process is not injurious to the fabric when properly carried out, is efficient as regards its sterilising powers, and need, moreover, not involve, as we shall presently show, any large outlay as to cost, or any trouble or control beyond the capacity of a person endowed with ordinary intelligence.

Steam at 100° C. or above that temperature has, we are of course aware, been employed with more or less success for this purpose. In general, however, its adoption has entailed a good deal of expense consequent on the more or less complex character of the apparatus used involving a certain amount of engineering knowledge and skill, which is requisite when the maintenance of a certain pressure of steam in excess of ordinary atmospheric pressure is an essential condition. Dr. Thresh of Chelmsford, the medical officer of health for the county of Essex, has, by a method which is at once as ingenious as it is simple, succeeded in producing a steam disinfecting apparatus the important features of which are that, while the necessity of high pressure to keep ordinary steam above its boiling point is quite dispensed with, yet steam is successfully employed at a temperature several degrees above the boiling point of pure water to ensure the complete destruction of pathogenic organisms. The need of careful supervision and control, therefore, in regard to the rigid regulation of valves is done away with. The principle of its working rests upon the well-known physical fact that when water contains a substance in solution its boiling-point is raised proportionally to the amount of substance dissolved, and that, further, the temperature of the steam given off by such a solution when boiled is several degrees higher than the temperature of the steam evolved from ordinary water at the common atmospheric pressure. Magnus and others have found, for example, that when a solution of chloride of calcium was boiling at 107° C. a thermometer in the steam indicated 105½° C., and when by concentration the boiling point had risen to 116° C. the thermometer in the steam indicated 111·2° C. The steam, therefore, emitted by a saline solution when boiling is in the condition which the steam of pure water would be if heated under atmospheric pressure to the temperature of the boiling solution.

It is the application of this principle which Dr. Thresh has taken advantage of in securing the requirements of a simple and efficient disinfector. The construction of the machine is consequently simple. In a word, instead of using water in the boiler, he employs a solution of calcium chloride of definite strength and of definite and constant boiling point, the steam emitted from which passes into the disinfecting chamber itself, jacketed by the boiler, so that

[1] The report of our Commission dealing with a method providing both for the Ventilation of Hospitals and the Treatment of Infected Air at the same time will be found in THE LANCET of May 11th, 1895.

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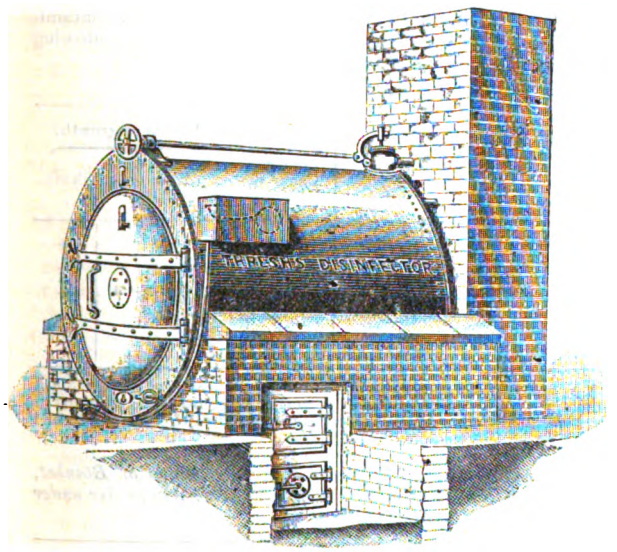
there is no possibility of the steam condensing, and a temperature certain to kill organisms is ensured.

To give details—and they are few—the following is the actual construction of the disinfector, which we recently inspected and thoroughly examined as to efficiency and other essential points at the isolation hospital at Chelmsford. It consists simply, as will be seen from the accompanying illustration, of a horizontal boiler, egg-shaped in section, and serving at the same time as a hot jacket round the hollow space which constitutes the disinfecting-chamber, the door to which is seen in the front. By means of a wheel situated on the top of the front of the machine a valve may be turned to admit the steam or to shunt it into the flue at the back. The steam is thus never allowed to accumulate at a pressure higher than the external atmosphere, and it can never be pent up to a dangerous point, since it is always free to escape either into the chamber or directly into the flue. When the exposure to steam is considered sufficient—generally about thirty minutes—the current of steam is shunted into the shaft, and air is induced to enter by opening the valve of a pipe situated just beneath the door of the chamber. The air so admitted passes through a pipe which is bent several times in gridiron form and immersed in the boiling liquid, so that the air admitted into the chamber to replace the steam is first raised to a temperature very nearly that of the boiling fluid itself. In our experiments an anemometer placed at the air inlet showed that air was passing through the chamber at the



rate of 4·4 cubic feet per minute. The capacity of the chamber being about 35·8 cubic feet, this would be equal to the atmosphere of the chamber being changed nearly four times in half an hour. To the left of the boiler and about two-thirds the way up is a small cistern with ball-cock connected, with a constant supply of water which feeds the boiler automatically as the solution is concentrated. The saline strength of the boiling solution is thus kept constant, and accordingly its boiling point never varies. The boiler is heated by means of an ordinary furnace, the doors of which are shown in the figure just below the brickwork on the left hand supporting the boiler. It occurred to us that it was possible that the solution of the calcium chloride would sooner or later corrode the boiler, but an examination of the boiler plates that had been some time in use revealed no sign of corrosion, nor could dissolved iron be traced in the solution. We are not aware that it has been shown that calcium chloride has any prejudicial action upon iron, although it is well known that magnesium chloride is very destructive to that metal, since it readily decomposes into hydrate of magnesia and hydrochloric acid.

In the series of experiments which we made with this machine due regard was had to the following points, which we consider to be the requisites of a disinfector that can safely be called satisfactory, and fit to be entrusted with so important a work, say, as that connected with an infectious diseases hospital. 1. Its actual cost should be such that it can be available for institutions, hospitals, infirmaries, workhouses, schools, &c., both large and small. 2. Its working expense or cost of maintenance should be small—commensurate, of course, with the amount of work it has to do; this should include the cost of labour. 3. It should be of simple construction and easily managed. 4. It should effect a uniform distribution of heat in all parts of the chamber, which should not vary. 5. The heat should attain the maximum as quickly as possible, and should insinuate itself into the innermost recesses of bulky articles, like bedding, &c. 6. It should satisfy bacteriological tests of infected material well wrapped up and, so to speak, guarded by folds of non-conducting material, as mattresses, blankets, &c. 7. The articles disinfected should come out uninjured and in the same condition as they went in, especially in regard to dryness.

The following experiments satisfied us on each and all of these heads:—

1. In regard to No. 1—that its initial cost should be such as to make it available for institutions both large and small—the following are the particulars of cost of the sizes of machines now being made, the prices quoted including the time of a man to test machine when fixed, supply of bricklayer's plans, &c.:—*Size A*, Disinfecting Chamber (1 door): 3 ft. 9 in. by 3 ft. 6 in. by 3 ft., with furnace and water-cistern, baskets, thermometers, lagging and testing after fixing charge for boiler, 60 guineas. *Size B* (1 door): 5 ft. by 3 ft. 9 in. by 3 ft., baskets, &c., 85 guineas. *Size C* (2 doors): 7 ft. by 4 ft. 6 in. by 3 ft. 6 in., baskets, &c., 120 guineas. *Size D* (2 doors): 8 ft. by 4 ft. 6 in. by 3 ft. 6 in., baskets, &c., 140 guineas.

2. As to No. 2 (its working expense being small), the following are our own observations on this head:—An intelligent labourer, such as one connected with a hospital, can, in the first place, manage the working of the machine without the slightest difficulty. The consumption of coal during seven hours' continued working in the Chelmsford machine was not more than 1 cwt.—costing, say, 1*s*. Mattresses, clothes, and bedding were during the whole of this time disinfected at intervals of one hour. The time required for the actual disinfection by the steam is thirty minutes, after which air is allowed to replace the steam for another thirty minutes. This point of procedure will be alluded to again later. This amounts, therefore, to the machine being charged seven times with articles for disinfection at a cost of fuel of 1*s*.—or, say, 2*d*. per charge.

3. In regard to the third requisite, we have already dealt with its simplicity of construction, which, as we have also pointed out, admits of its easy management by unskilled labour, or at any rate by a man of average intelligence.

4. The following experiments, and others to be described later, show how uniform is the distribution of heat in all parts of the chamber. For this purpose three maximum registering thermometers, A, B, C, were placed in various parts of the machine, as were also two thermometers, *a*, *b*, which, on registering 100° C., ring a bell by means of the mercury completing circuit of electric current from the battery. Maximum registering thermometers: A, first experiment, 221·5°, near door; B, 220·9°, far end; C, 213·3°, in the middle. This last reading is valueless, since it was found that the column of mercury had stuck, for on repeating the experiment with the thermometers placed *together in the middle* the readings were: A, 220·1°; B, 219·6°; C, 213·2°. Bell thermometers, first experiment: *a*, rang in four minutes; *b*, rang in four minutes.

5. The following experiments demonstrate the rapidity with which the maximum heat is attained, and also the extraordinary power possessed by steam of penetrating quickly into the innermost interstitial parts of fabric. A pair of blankets was placed in the machine with a bell recording thermometer (212° F.) and a maximum registering thermometer placed between eight folds of the material. The bell of the electric recording thermometer rang within eight minutes after the steam was turned on. The steam having been turned off half an hour after starting, and air allowed to displace the steam through the air inlet for thirty minutes, the blankets were taken out, and the thermometer inside the folds was found to register 216·4° F. In a second experiment the bell rang in eight minutes; the thermometer registered 214·8° F. With a second pair of blankets with electric bell recording thermometer and a maximum registering thermometer inside sixteen folds, and a maximum thermometer on the top of the blanket the bell rang in fourteen minutes and a half. The thermometer at the top of the blanket registered 221·9° F.; the thermometer within the sixteen folds

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registered 217·6° F. In the second experiment the bell rang in thirteen minutes and a half, and the thermometer within the sixteen folds showed 215·2° F. A thermometer placed in a glass tube plugged with cotton wool showed that a temperature of 219 1° F. had been reached. In another experiment a large mattress was selected, with a bell thermometer on the top and another between the folds, and a maximum thermometer suspended in the machine, and one on the top of the mattress and another inside. The bell outside the mattress rang in eight minutes and that inside in thirteen minutes. The thermometer in the machine showed 220 0° F., that laid on the mattress 217·7° F., and that inside 214·4° F.

6. The following bacteriological tests are perhaps the most important results in the series, since we are now dealing with the actual sterilising power of the machine.

The method employed for testing the disinfecting action of the machine was as follows. A swab of cotton-wool wrapped round the end of an iron wire was impregnated with the test material and then placed between the folds of blanket, mattress, and other materials to be disinfected in the machine. Except in Series A 8 and A 16, the swab rested on the material, the cotton-wool plug of the tube being removed and placed by the side of it, and the wire end of the swab being inserted loosely in the same tube, so that its identity could be established by the label on tubes. In Series A 8 and A 16 the wire end of the swab was also inserted in the tube in a similar way, but it was plugged in quite tight with the cotton-wool plug, so that any infective matter left in the tube was accordingly protected in great part from the direct action of the steam present in the chamber, so that the steam could only come into action on the infective matter left in the tube by passing through the cotton-wool plug or else be sterilised by heat through the glass walls of the tube. In every instance the swabs were enveloped in some good non-conducting material. In Series A 8 and A 16, in particular, the conditions present were in all probability, therefore, much more unfavourable as regards the application of the disinfecting action than would ever occur in actual practice, so that, should the apparatus stand this test, it may be regarded as absolutely reliable. The infective material employed consisted of the organisms of diphtheria, typhoid fever, cholera, anthrax spore-bearing material, and staphylococcus pyogenes aureus, the common pus-producing organism. The cotton-wool swabs were infected in the following manner. They were first soaked in a vigorous broth cultivation of the test organism, so that the infective material might penetrate to the innermost parts of the swab; they were then rubbed over the surface of an agar-agar or blood-serum cultivation of the microbe, so that the swab became infiltrated with large masses of the infective material mixed with organic matter. The conditions present would be accordingly comparable to those found in linen contaminated with choleraic or typhoid evacuations, where no doubt the foreign substances present along with the disease germ would on drying tend to protect the microbe from external injurious agencies. The diphtheria, anthrax, and pus organisms employed had all been obtained from recent cases and were still virulent. The choleraic and typhoid organisms, on the other hand, had been under cultivation for a considerable time, and, although growing vigorously, were probably non-virulent. The anthrax material was tested as regards the resistance of its spores, with the following results. The anthrax spore-bearing material was tested as regards its resistance to heat, since it has long been recognised that different specimens of anthrax vary most remarkably as regards their powers of resistance. They were maintained for different periods of time at 80°, 90°, and 100° C., without apparently affecting their vitality, as will be seen from the appended table, the *plus* signs representing presence of, and the *negative* signs absence of, growth :—

A Control of Spore Material Used.

—	Five minutes.	Ten minutes.	Fifteen minutes.
80° C.	+	+	+
90° C.	+	+	+
100° C.	+	+	+

It may be mentioned, as indicating the resistant power of these test spores to the action of heat, that those which had been maintained at a temperature of 100° C. for fifteen minutes appeared to grow as rapidly and vigorously on the different media as those at a lower temperature, so that their vitality was apparently quite unimpaired. The swabs containing the infective material, which had either been exposed to the disinfecting agency or had been retained untouched to serve as controls, were treated as follows for the purpose of ascertaining whether the organisms were still in a living condition. The swab was withdrawn from the tube and drawn over the surface of an obliquely-sloped agar-agar or blood serum tube; it was then introduced into a tube of broth, in which it was well washed, and while saturated with the fluid was withdrawn and introduced into an oblique agar or serum tube, in which it was finally left to be incubated at 37° C., along with the other tubes. The first agar which was made from the swab would indicate the presence or absence of living microbes on its surface, while the second tube, which contained the swab saturated with broth, might show growth from organisms situated in the depths of the cotton-wool, when, perhaps, those on the surface had been destroyed. At the same time the broth tube in which the swab had been soaked was incubated with the other tubes as an additional test of the presence or absence of living organisms, while in every case of growth a microscopic examination, and, if necessary, cultivations, were made for the purpose of recognising the test organism in question or eliminating the results of accidental contamination. The results obtained will be found in the following tables :—

Controls.

Test organism.	Presence or absence of growth.		
	First agar-agar or serum.	Second agar-agar or serum.	Broth.
Diphtheria...	+	+	+
Typhoid fever	+	+	+
Cholera	—*	+	+
Staphylococcus pyogenes aureus	+	+	+
Anthrax	+	+	+

* Apparently the organisms present on the surface of the swab had been killed by the process of drying, so that no growth was obtained in this tube, although a positive result is recorded in the broth and second tube.

SERIES A 8.—*Organisms placed between 8 Folds of Blanket, submitted to 30 min. Steam and 30 min. Warm Air under conditions already described.*

Test organism.	Presence or absence of growth.		
	First agar-agar or serum.	Second agar-agar or serum.	Broth.
Diphtheria	—	—	—
Typhoid fever	—	—	—
Cholera	—	—	—
Staphylococcus pyogenes aureus	—	—	
Anthrax	—	—	—

SERIES A 16.—*Organisms placed between 16 Folds of Blanket, submitted to 30 min. Steam and 30 min. Warm Air, under conditions already described.*

Test organism.	Presence or absence of growth.		
	First agar-agar or serum.	Second agar-agar or serum.	Broth.
Diphtheria	—	—	—
Typhoid fever	—	—	—
Cholera	—	—	—
Staphylococcus pyogenes aureus	—	—	—
Anthrax	—	—	—

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SERIES B 8.—*Organisms placed between 8 Folds of Blanket, submitted to 30 min. Steam and 30 min. Warm Air.*

Test organism.	Presence or absence of growth.		
	First agar-agar or serum.	Second agar-agar or serum.	Broth.
Diphtheria	—	—	—
Typhoid fever	—	—	—
Cholera	—	—	—
Staphylococcus pyogenes aureus	—	—	—
Anthrax	—	—	—

SERIES B 16.—*Organisms placed between 16 Folds of Blanket, submitted to 30 min. Steam and 30 min. Warm Air.*

Test organism.	Presence or absence of growth.		
	First agar-agar or serum.	Second agar-agar or serum.	Broth.
Diphtheria	—	—	—
Typhoid fever	—	—	—
Cholera	—	—	—
Staphylococcus pyogenes aureus	—	—	—
Anthrax	—	—	—

SERIES C.—*Organisms placed between Folds of Bed Mattress.*

Test organism.	Presence or absence of growth.		
	First agar-agar or serum.	Second agar-agar or serum.	Broth.
Diphtheria	—	—	—
Typhoid fever	—	—	—
Cholera	—	—	—
Staphylococcus pyogenes aureus	—	—	—
Anthrax	—	—	—

Experiment with a Book of 800 pages; Anthrax Organisms placed in the middle between the pages.

Test organism.	Presence or absence of growth.		
	First agar-agar or serum.	Second agar-agar or serum.	Broth.
Anthrax	—	—	—

7. Since, as will be seen in the experiments grouped under (5) and in the bacteriological experiments just described, the steam proved to penetrate completely through materials which may be supposed to offer obstruction to its passage, the next important thing to determine was whether it leaves the articles in the same condition in regard to dryness, or whether it affects them prejudicially in any other way. The blankets and mattress used in the experiments described under (6) were, therefore, at the same time weighed previously to placing them in the machine. The results were as follows:—

Original weight of blankets, eight folds, used in experiments marked Series A 8	6 lb.	8¼ oz.
Weight after exposure in the machine to thirty minutes steam and thirty minutes warm air, and then shaken for a few minutes in the open air	6 lb.	6 oz.
Loss		2¼ oz.
Original weight of blankets, sixteen folds, used in Series marked A 16	7 lb.	3½ oz.
After disinfection and shaking for few minutes in the open air	7 lb.	2¼ oz.
Loss		¼ oz.
Original weight of blankets, eight folds, Series B 8	6 lb.	6¼ oz.
After disinfection	6 lb.	6¼ oz.

No change in weight.

Original weight of blankets, sixteen folds, B 16	7 lb.	2 oz.
After disinfection	7 lb.	1¾ oz.
Loss		¼ oz.

On shaking the blanket a second time in the open air its weight was 6 lb. 15¾ oz.

Original weight of mattress, Series C	34 lb.	2 oz.
After disinfection	34 lb.	6 oz.
Gain		4 oz.

Some further experiments gave the following results:—

Original weight of a suit of clothes	6 lb.	5 oz.
After disinfection	6 lb.	1 oz.
Loss		4 oz.

An electric thermometer was placed inside the trousers pocket; the bell rang, registering 100° C. in ten minutes and three-quarters.

Original weight of eider-down quilt	6 lb.	11½ oz.
After disinfection	6 lb.	8¾ oz.
Loss		2¾ oz.

The bell thermometer placed between the folds of the quilt rang in thirteen minutes, and a maximum showed that a temperature of 213·1° C. inside had been attained, while a thermometer resting on the top of the quilt indicated 221° C.

The following experiments of a miscellaneous character are also worthy of mention as affording additional evidence of the perfectly harmless process which articles as a whole placed in the chamber go through, in spite of the temperature being several degrees above 212° F. Some tobacco in a tin was weighed and placed in the machine. It weighed with the tin 1 lb. 3¾ oz. It weighed exactly the same after exposure to the steam, and its condition, and certainly its smoking qualities, were not in the least impaired. It is well known that tobacco has a strong affinity for moisture, so that this may be regarded as a severe experiment. Had there been any condensation of steam the result would have been quite different. Even with tobacco wrapped in delicate tissue paper, as in cigarettes, no change could be remarked. Further proof that condensation does not occur and that the steam must be perfectly dry was also attested by the fact of the colouring of tinted paper, cheques, pieces of common chintz, or coloured muslin does not spread on the fabric, or extend beyond the original impress or pattern. An interesting result was obtained when lucifer matches of three kinds, the phosphorus- and sulphur-tipped match (the familiar Tandsticker of the tramp), the wax match, and wooden safety matches, were placed in the pockets of some clothes placed in the machine. The steam was turned on only for fifteen minutes. In no case had the matches ignited, although the temperature in the pockets was indicated by thermometers to have been well over boiling point. Oddly enough, on bringing the clothes into the air and taking the Tandstickers out of the pocket they instantly fired. The wax matches had melted and soaked into the cloth. Lastly, there were placed in the machine certain materials which might be supposed to be injured by the heat, but it was found that horsehair, and even strips of macintosh rubber, such as is used in infectious hospitals, were not injured.

To sum up, it will be seen that in no single particular have we found the invention of Dr. Thresh to come short of the requirements which we have laid down as essential in a machine intended for practical disinfection. In the first place, it is of moderate cost, the expense of working it is small, it requires no special management, and yet is free from the risks attending the use of steam under pressure. Next, and above all, it is efficient as a steriliser, since it has been shown in the bacteriological experiments above described that the machine is able to render innocuous the disease organisms therein mentioned. Even the resistant spores of bacillus anthracis were rendered completely inert, so that it may be concluded with safety that this apparatus would act effectively on all infective material which in every-day practice would be submitted to its action. Not less important is it that the process of disinfection by steam is effected by it not only without injury to the articles and fabrics which commonly require disinfecting, but it leaves them absolutely unwetted, and, indeed, in many instances in a drier condition than they were previously to treatment. In short, the machine fulfils the conditions of a really efficient disinfector for all practical purposes, and, seeing how difficult a task it has hitherto been to satisfactorily comply in every particular with these conditions, the fact that such an appliance is now at the disposal of those responsible for the maintenance of the public health will be welcomed by all interested in sanitary advance. The machine is the property of the

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Thresh's Steam Disinfecting Company, Ltd., of which Mr. J. C. Smith, of Tindal-square, Chelmsford, is managing director.

THE ASHANTI EXPEDITION.

THERE is nothing particular to chronicle since last week regarding this expedition, beyond the fact that the troops have crossed the Prah and are advancing in accordance with the official programme, and that the rumoured proposals for peace from King Prempeh are not believed. The force is, speaking generally, in excellent health and spirits. There are about fifty sick at the base, and, as might have been confidently expected, cases of fever have appeared among the force at Prahsu and across the Prah, but they are neither numerous nor serious. The total number on the sick list is about seventy. The expedition seems to be well supplied with carriers, and the alliance of the Bekwai tribe will greatly facilitate its march to Kumasi. Among the stores sent to the front supplies of ice have been forwarded to the hospital at Mansu. The arrangements—both transport and medical—are good, and are, so far, working admirably. On the last occasion the Ashantis fought us at Amoaful, but it is believed that on the present occasion, if any fight takes place, it will be at some point nearer Kumasi.

(FROM OUR SPECIAL WAR CORRESPONDENT.)

SAILING ALONG THE WEST AFRICAN COAST WITH THE CONTINGENT BOUND FOR ASHANTI.

Friday, Dec. 14th, 1895, 8.30 A.M.

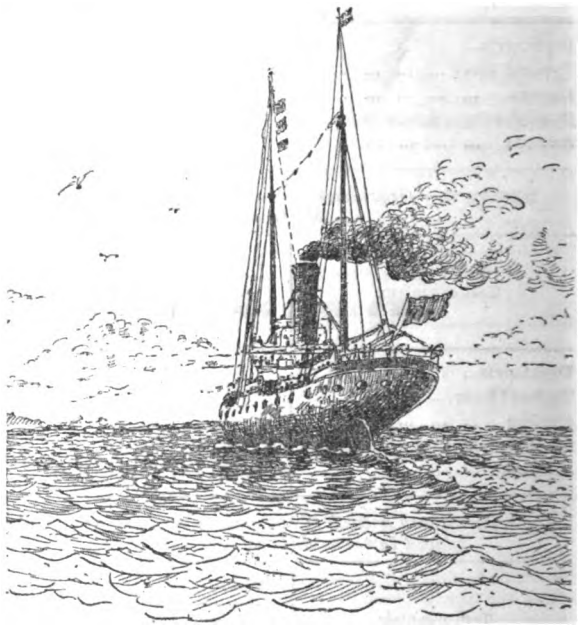
WE have just now sighted our port of destination. It is a fine, warm morning, cloudy overhead, but somewhat hazy to leeward, obscuring objects at a short distance from us. Everybody is overjoyed at the prospect of reaching land once more, and the hilarity of some of our younger soldiers, officers as well as men, certainly proves their fitness, both in mind and body, to undertake the risk that lies before them. At 10.45 we came to an anchor off Cape Coast Castle. Two men-of-war (English gunboats) are companions beside us. A very heavy southerly swell, causing the *Bathurst* to roll considerably, bids us welcome to the West African shore. Several native boats soon came alongside, and immediately their crews were clamouring with expressive gesticulations to obtain the first chance of receiving cargo and war material from our ship. As soon as the hatches were opened the delivery of it commenced, the process being very carefully and skilfully superintended by service officers detailed for that special duty.

I find the town and precincts of Cape Coast Castle considerably enlarged as well as improved, as far as sanitation is concerned, since my visit here in H.M.S. *Wye* some years ago, and I am very pleased to say that little or no fever at present exists in the town or neighbourhood, and our contingent (by this vessel, at any rate) reaches its port of disembarkation healthy as well as fit to a man. It is most devoutly to be hoped that if the advance on Kumasi can possibly be pushed on with rapidity (of course consistently with the health and marching endurance of the men before the rainy season sets in) our present little venture may, after all, be productive of good results and go far beyond the expectancy of the most sanguine of those deeply interested in us at home.

His Royal Highness Prince Christian Victor and Sir Francis Scott, both looking remarkably well after their trip, left our ship for the shore about 4 P.M. yesterday.

Looking towards land during the evening now fast closing in, a prominent feature in the view before me is the grand old fortified, capacious, verandah-encircled fort, planted on a sort of rocky promontory. This huge battlement stands out in a bold, white-relieved foreground, against a sombre green-coloured background, the complementary reddish-brown-tinted earthy surroundings adding to the effect considerably. Then one observes here and there, as if thrown in gratuitously by the hand of the gifted painter, a great number of oddly built, yet withal very picturesque, buildings, evidently erected by the architect without any pretension as to any definite style or design, whilst groups of men and women (negroes), standing along the surf-fringed shore, with the golden-orbed day-god just now setting beneath a bank of mauve-tinted clouds before them, and the lovely waving, sap-green cocoanut trees behind them, go far to complete a scene as replete with grandeur as the most fastidious of artists could ever desire to commit to canvas.

To propose at home a journey to Kumasi is indeed a very easy matter, but to arrange out here details for such an undertaking is quite a different one. First of all, I must tell you that half of the road, some seventy-five miles long, is little better than a mere cattle track, so overstrung in places that a rider could not sit a horse long without running a risk of decapitation from the strong, thickly interwoven trees and brambles above him. More than this, no horse or mule can live in this part of Africa; they do fairly well in some other portions of the continent, but have never been able to live here. So everything has to be borne by carriers, who balance loads up to 40 lb. or 50 lb. on their heads. The remaining half of our projected trip is not only through a hostile country, but must be done after cutting a new road through the densest forest, possibly overhung by a green canopy which the fiercest rays of even a tropical sun will fail to penetrate. Half-



The ss. *Bathurst* (with the staff of the Ashanti Expeditionary Force on board) passing, and signalling to, Cape Verd, West Coast of Africa.

way to Prahsu (*lit.* township on the River Prah) the telegraph wire has been laid, and our sappers start to-day or to-morrow in order to complete it up to that place. Having remained on board the *Bathurst* nearly all day I have had unusual opportunities of watching the unloading of the cargo into the native surf boats, a by no means easy undertaking considering the very heavy ground-swell thereon, making our vessel heel over at times to an angle of 15° or 20°. But I can only say that, so far as my judgment (as an old salt) goes, the manner as well as the expeditious style of its performance reflect the very highest credit on the officers, naval as well as military, who have been entrusted with the carrying out of this most important duty. Surgeon-Major Wilson and Surgeon-Captain Eckersley are responsible for the medical stores on board the *Bathurst*, and, as I previously had to draw the attention of the readers of THE LANCET, whilst I was at Suakim, to the unsatisfactory arrangements made for the transit and delivery of medical stores out there, I very naturally watched the performance of this most essential part of the Army Service or Medical Service Corps' work with the keenest interest in this instance. To say that the system of transport as exhibited by the officials who have had the carrying out of the present contingent's medical requirements bears favourable comparison with that of the past is but a faint expression of the truth, for I am able as well as pleased to chronicle, for the information of any interested in

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the matter, that a very great and marked improvement as regards stowage and delivery has taken place all round. Medical stores and requirements, so far as I observed, seemed to have been better numbered, marked, and catalogued, and placed together in the hold of the ship, and certainly were more come-at-able than they formerly were. The medical officers in charge remained on board and personally superintended their careful delivery over the side into the native boats, and when they arrived on shore they were received by other officers detailed for that duty there, and were properly and expeditiously sent on to the store allotted and set apart for that purpose, instead of being sent on shore and mixed up indiscriminately with any other goods, as they unfortunately formerly were in the Soudan campaign. Medical details cannot be quite settled until after the arrival of the principal medical officer, so I cannot say more till the next ship comes in.

I enclose a pen-and-ink sketch of our boat, having placed myself mentally some three miles outside her. The date of the sketch is Dec. 5th, when we were off Cape Verd.

THE PROGRESSIVE DEVELOPMENT OF PORT SANITARY ADMINISTRATION.

THE cholera recrudescence of recent years has, fortunately, left its mark but faintly impressed upon our bills of mortality, and as regards this country, at least, it will be remembered in the history of sanitation more by the awakening of our port sanitary authorities to their obligations and their powers for ameliorating the condition of the seafaring population, than by the mortality it occasioned. The cholera epidemics of 1831–32, 1848–49, 1853–54, and 1865–66 have all left their marks upon the sanitation of this country, and the last outbreak—to which we are referring—has not been without its quickening effect in this direction.

The very complete and detailed report which has just been issued by the medical department of the Local Government Board on the Port and Riparian Sanitary Survey of England and Wales in 1893-94 will form a valuable work of reference, by which the further progress of our port and riparian districts may be gauged, and it furnishes also a good example of the results which may be achieved in the sanitary progress of this country by the efforts of a vigorous and wisely administered central department in conjunction with those of the local sanitary authorities. In his introduction to the report on the survey—the general control and arrangement of which were entrusted to Dr. Barry, by whom the body of the report is written—Dr. Thorne Thorne refers to the fact that in accordance with the principles which govern the policy of our sanitary administration the ports of England and Wales, even though removed but a short distance in space of time from cholera-infected ports, are always open to shipping, and that thus it is a matter of paramount importance that our port and riparian sanitary administration should be as efficient as it can be made. The emergency survey of 1892, which was undertaken owing to the rapid diffusion of cholera across Russia in the summer of that year, revealed the fact that our littoral defences were not then in such a condition as to afford a guarantee that sea-borne cholera would be dealt with in the best practicable manner, nor did it appear that there was that proper supervision over the sanitary condition of the vessels and crews frequenting our ports which was had in view when constituting the port sanitary authorities. Under these circumstances it was determined to at once, under the advice of the medical officer of the Local Government Board, undertake a more detailed and systematic survey, and the report just issued is a record of the work then done, of the conditions which obtained, and the improvements which have been effected. When the survey was commenced it was discovered that, out of the sixty port sanitary districts of the English and Welsh littoral, in only one-third was the general administration satisfactory and efficient, the term "efficiency" being held to mean the services of a competent and adequately remunerated medical officer of health and a properly instructed inspector of nuisances, the provision of means for isolation and disinfection, the adoption of compulsory notification, and in some districts regulations under Section 125 of the Public Health Act, 1875. In estimating the degree of efficiency special regard was had to the administrative arrangements for ensuring the sanitation of vessels and the health of crews arriving in the port. In another third of the port sanitary districts the administration was lax and inefficient, and in some instances, notwithstanding the protests of the Board, "the miserable pittances" paid to sanitary officers seem, Dr. Thorne Thorne significantly remarks, "to have been contrived so as to encourage, if not to suggest, the neglect which was found to prevail." The remaining third of the port sanitary districts occupied a position midway between the two-thirds specifically referred to. Having regard to these facts, it is a fortunate matter that the highest efficiency was, as a general rule, found in our most important and most frequented ports. The above remarks more particularly apply to general sanitary administration in our ports, but in regard to the special duties under the Cholera Orders it is reported that the arrangements for medical inspection were satisfactory in all but five port districts, while in the ports of London, River Tyne, Hull and Goole, Southampton, Weymouth, Plymouth, Bristol, Cardiff, Barry-and-Cadoxton, Swansea, and Liverpool the arrangements, which were highly satisfactory, were "carried out with a devotion to duty on the part of many of the medical officers of health such as must be regarded as having largely contributed to the marked success with which imported cholera was controlled at nearly all English ports during 1893–1894." This tribute on the part of the medical officer of the Local Government Board is well merited. The duties which, during the alarm of cholera, the port medical officers of health were called upon to perform were arduous in the extreme, and they laid strain not only on the tactical capabilities of these officers, but also on their physical endurance. Dr. Barry in his characteristically complete report contributes some interesting general remarks upon the duties of each of the several authorities brought into contact with shipping under the Public Health Acts and the Cholera Orders—i.e., the Customs, Coast-guards, and Sanitary Authorities; and he also furnishes numerous carefully prepared maps showing the areas of jurisdiction of the several authorities. The methods adopted in the survey are probably familiar to our readers; it must suffice here to say that they were well calculated to bring the medical inspectors charged with the survey into such relations with the local authorities and their officers as to stimulate the objects in view. Between the beginning and completion of the survey much progress was made, and Dr. Barry tells us that if the ports were now re-inspected many of those wherein the administration used to be defective would have to be removed to a higher class; and, finally, he observes that, "whilst prior to the visits of the Inspectors of the Central Department many Port and Riparian Authorities had in great measure failed to appreciate the responsibilities devolving upon them with regard to either the health of persons on shipboard or to the protection of inland districts from the importation of disease, there was, subsequent to inspection and conference, an enormous improvement in respect to these matters." It certainly seems to us, from the reports of port sanitary medical officers of health, which we have the pleasure of reviewing in our columns from time to time, that the Cholera Survey of 1892 to 1894 has had excellent results, and Dr. Thorne Thorne, Dr. Barry, and the Inspectors engaged on the survey are to be congratulated upon the success of their labours.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND; MEETING OF FELLOWS.

A MEETING of Fellows of the College was held on the 2nd inst., the President, Mr. Christopher Heath, being in the chair.

The agenda of the meeting of last July having been taken as read, the President reported that the committee appointed by the Council to receive deputations from the Fellows in reference to the desirability, or otherwise, of applying for a new Charter had received one deputation of Fellows; that the committee had also, by direction of the Council, received a deputation of Members in reference to the same matter; that

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the committee had further been instructed by the Council to report upon certain resolutions carried at the annual meeting of Fellows and Members on the 7th ultimo, but that, as one of those resolutions was submitted to the meeting of Fellows to-day for consideration, the committee had thought it desirable to postpone their report to the Council.

The President read the following resolution, carried at the annual meeting of Fellows and Members on Dec. 7th, 1895:—

"That the number of the Council be increased to thirty-two, and that eight of these, who may be Members, shall be elected by the Members only, provided always that no Member who has not been a Member for twenty years shall be eligible for a seat on the Council."

and stated that it had been referred by the Council to the consideration of this meeting of Fellows and was now open for discussion.

Sir Robert Craven moved that the resolution be accepted. He thought that in the interest of peace some concession should be made to the Members to try to put a stop to such unseemly proceedings as those which took place at the late meeting of Fellows and Members.

Mr. Holmes seconded the resolution and considered that it would be accepted as a great concession if Members were admitted to the Council.

Mr. Herbert W. Page then moved as an amendment:—

"That it is desirable to give to the Members of the College direct representation upon the Council, and that for this purpose the number of seats on the Council shall be raised to twenty-eight, of which four shall be filled by eligible Fellows, who shall be elected by the votes of Members only, in such a manner and at such time as the Council may determine."

He pointed out that his amendment differed in some important particulars from the resolution already brought forward. These were, firstly, the number of seats to be added to the Council; he thought that a council of thirty-two would be unwieldy; secondly, he thought that it was undesirable to put Members on the Council, and that if Members were allowed to elect Fellows he considered they would have obtained all they really desired.

Mr. F. J. Gant seconded the amendment and said that he thought it desirable that the College should cultivate closer relations with its constituents.

Sir Robert Craven said he was acquainted with very many Members of the College, and from the opinions he had heard them express he did not think the Members would be satisfied with Mr. Page's amendment.

Mr. Thomas Smith asked if it were definitely known that the Members would consent to be represented by Fellows.

Mr. Tweedy said that he was a member of the committee appointed to receive the deputation from the Members, and that the Members had laid great stress on being represented by Members, and that it was with great difficulty he had prevailed on the deputation to agree to the alteration in the resolution, afterwards carried at the meeting of Fellows and Members, that the representatives of the Members might be either Fellows or Members. This being so, he did not think there was any chance of the Members being satisfied with being represented by Fellows only.

Mr. Gant urged Mr. Page to withdraw his amendment.

Mr. Henry Morris said that three arguments were usually brought forward in favour of the proposed change. These were the arguments from history, law, and expediency. As to the argument derived from history, at no time in the history of this College or its predecessors had the general body of Members had any share in the government of the College. The Council, or what represented it, had always been either self-elective or elected by a very small number of the constituents. The method of election was more democratic now than it had ever been. The legal claim had been tested and had been proved not to exist; and, as to the change being expedient, he could not see it. The election by Members would probably cost £300 or £400, and this could not be afforded in the present state of the finances of the College.

Mr. Spencer suggested that a committee of the Council should be appointed to consider the question.

Mr. Willett asked Mr. Page to omit from his amendment all after the words "upon the Council," for by so doing the house could express its approval of the principle without committing itself to any details.

Mr. Tweedy said that he felt that members of Council should not endeavour to influence the minds of the Fellows, but he urged Mr. Page to adopt the suggestion.

Mr. Page said he was quite willing to omit the latter part of his amendment, and, the original resolution having been withdrawn by consent, the amendment was carried by a large majority.

Mr. Clement Lucas moved:—

"That in the opinion of the Fellows of this College women should be admitted to the diplomas of the College."

remarking that the arguments chiefly employed against admitting women were arguments against their admission to the profession, but that question had already been settled many years ago.

Mr. Norton seconded.

Mr. Gant said he wished to speak from his knowledge of women students, extending over eighteen years, as surgeon at the Royal Free Hospital, where he had always found them earnest in their work.

Dr. Duncan asked whether the Council were able to admit women to the examinations, and having been assured by the chairman that the Council had the power, he said that in India there was a very large demand for qualified women.

Mr. T. Cooke said that he had been much struck with the delicate sense of touch in operating shown by those women students whom he had instructed in operative surgery. He considered them to be very thorough workers.

On being put to the vote, 45 Fellows were in favour of the resolution and 10 opposed to it. It was, therefore, carried.

Mr. Holmes moved:—

"That this meeting learns with pleasure that the Council of the College are represented on the Civil Rights Defence Committee in the case of Mr. R. B. Anderson,"

and Mr. Gant seconded, but the President pointed out that as a quorum of thirty was not present he must declare the meeting closed.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6699 births and 4311 deaths were registered during the week ending Jan. 4th. The annual rate of mortality in these towns, which had increased in the three preceding weeks from 17·8 to 19·1 per 1000, further rose last week to 20·7. In London the rate was 20·1 per 1000, while it averaged 21·1 in the thirty-two provincial towns. The lowest rates in these towns were 9·7 in Croydon, 13·9 in Norwich, 14·1 in Brighton, 15·2 in Sunderland, and 15·4 in Nottingham; the highest rates were 24·4 in Bristol, 25·1 in Liverpool, 25·4 in Manchester and in Blackburn, 27·6 in Oldham, and 25·9 in Salford. The 4311 deaths included 563 which were referred to the principal zymotic diseases, against 593 and 543 in the two preceding weeks; of these, 193 resulted from measles, 126 from whooping-cough, 99 from diphtheria, 60 from scarlet fever, 46 from diarrhœa, 39 from "fever" (principally enteric), and not one from small-pox. The lowest death-rates from these diseases were recorded in Swansea, Nottingham, Croydon, Brighton, and Portsmouth, and the highest rates in Wolverhampton, Birmingham, Oldham, Blackburn, and Salford. The greatest mortality from measles occurred in Oldham, Norwich, Birmingham, Burnley, Salford, and Blackburn; from scarlet fever in Gateshead; from whooping-cough in Birkenhead, Bradford, Sheffield, Sunderland, Bolton, and Oldham; and from "fever" in Wolverhampton. The 99 deaths from diphtheria included 66 in London, 9 in Birmingham, and 3 in Halifax. No fatal case of small-pox was registered during the week under notice either in London or in any of the thirty-three large towns. There were 68 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 4th inst., against 89, 82, and 77 at the end of the three preceding weeks; 9 new cases were admitted during the week, against 18, 5, and 12 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2830, against 2800, 2725, and 2798 on the three preceding Saturdays; 320 new cases were admitted during the week, against 329, 210, and 184 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 264 to 318 in the three preceding weeks, was 314 last week, and were as many as 414 below the corrected average. The causes of 92, or 2·1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were

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duly certified in Bristol, Cardiff, Nottingham, Oldham, Newcastle-upon-Tyne, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Liverpool, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the three preceeding weeks from 18·9 to 20·0 per 1000, further rose to 21·0 during the week ending Jan. 4th, and slightly exceeded the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·7 in Perth and 14·0 in Leith to 23·2 in Glasgow and 26·1 in Greenock. The 614 deaths in these towns included 29 which were referred to whooping-cough, 16 to scarlet fever, 16 to diarrhœa, 10 to measles, 7 to diphtheria, 4 to "fever," and not one to small-pox. In all, 82 deaths resulted from these principal zymotic diseases, against 83 and 77 in the two preceding weeks. These 82 deaths were equal to an annual rate of 2·8 per 1000, which was slightly above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 23 and 35 in the two preceding weeks, declined again to 29 last week, of which 19 occurred in Glasgow, and 5 in Aberdeen. The deaths referred to scarlet fever, which had been 13 and 9 in the two preceding weeks, rose again to 16 last week, and included 10 in Glasgow, 2 in Dundee, and 2 in Aberdeen. The 10 fatal cases of measles exceeded by 3 the number in the preceding week, and included 5 in Glasgow and 3 in Greenock. The deaths from diphtheria, which had been 11 and 5 in the two preceding weeks, rose again to 7 last week, of which 3 occurred in Edinburgh, 2 in Leith, and 2 in Glasgow. All the 4 fatal cases of "fever" were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 103 and 142 in the two preceding weeks, declined to 135 last week, and were 19 below the number in the corresponding week of last year. The causes of 51, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 25·1 and 23·3 per 1000 in the two preceding weeks, rose again to 28·8 during the week ending Jan. 4th. During the thirteen weeks of last quarter the death-rate in the city averaged 24·0 per 1000, the rate during the same period being 18·0 in London and 17·2 in Edinburgh. The 193 deaths registered in Dublin during the week under notice showed an increase of 37 upon the number in the preceding week, and included 7 which were referred to the principal zymotic diseases, against 8 and 3 in the two preceding weeks; of these, 3 resulted from "fever," 2 from whooping-cough, and 2 from scarlet fever, but not one either from small-pox, measles, diphtheria, or diarrhœa. These 7 deaths were equal to an annual rate of 1·0 per 1000, the zymotic death-rate during the same period being 3·0 in London and 1·9 in Edinburgh. The deaths referred to different forms of "fever," which had been 3 and 1 in the two preceding weeks, rose again to 3 last week. The mortality both from scarlet fever and from whooping-cough exceeded that recorded in recent weeks. The 193 deaths in Dublin last week included 23 of infants under one year of age, and 47 of persons aged upwards of sixty years; the deaths of infants showed an increase, while those of elderly persons showed a slight decline from the number recorded in the preceding week. Seventeen inquest cases and 18 deaths from violence were registered; and 53, or more than a fourth, of the deaths occurred in public institutions. The causes of 8, or more than 4 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING DECEMBER, 1895.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during December in each of the forty-three sanitary areas of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 11·5 per 1000 of the estimated population. In the three preceding months the rates had been 12·4, 14·5, and 13·7 per 1000 respectively. Among the various sanitary areas the rates were considerably below the average in Paddington, Westminster, Stoke Newington, Strand, Holborn, and Bermondsey; while they showed the largest excess in Chelsea, Hackney, Bethnal Green, Whitechapel, St. George-in-the-East, Mile End Old Town, Poplar, and Greenwich. The prevalence of small-pox in London showed a slight further decline during December, the 31 cases notified during the month including 11 in Greenwich, 4 in Newington, 3 in Poplar, 2 in Marylebone, 2 in Bethnal Green, and 2 in Lambeth sanitary areas. The Metropolitan Asylum Hospitals contained 75 small-pox patients at the end of December, against 227, 103, and 73 at the end of the three preceding months; the weekly admissions averaged 13, against 27, 15, and 15 in the three preceding months. The prevalence of scarlet fever in London showed a marked decline during December; this disease was proportionally most prevalent in Chelsea, Hackney, Whitechapel, St. George-in-the-East, Poplar, St. Olave Southwark, Rotherhithe, Lambeth, and Lewisham sanitary areas. The Metropolitan Asylum Hospitals contained 2708 scarlet fever patients at the end of December, against 2845, 2727, and 2690 at the end of the three preceding months; the weekly admissions averaged 250, against 333, 263, and 304 in the three preceding months. The prevalence of diphtheria in London during December showed a slight further decline from that recorded in recent months; among the various sanitary areas this disease showed the highest proportional prevalence in Fulham, Chelsea, St. George-in-the-East, Mile End Old Town, Poplar, Greenwich, Lee, and Plumstead. There were 687 diphtheria patients under treatment in the Metropolitan Asylum Hospitals at the end of December, against 664, 661, and 672 at the end of the three preceding months; the weekly admissions averaged 99, against 101, 103, and 98 in the three preceding months. The prevalence of enteric fever in London in December showed a marked decline from that recorded in the preceding month; this disease was proportionally most prevalent in Hampstead, Hackney, City of London, St. George-in-the-East, Mile End Old Town, and Poplar sanitary areas. Erysipelas was proportionally most prevalent in Clerkenwell, Bethnal Green, St. George-in-the-East, and Mile End Old Town sanitary areas. The 19 cases of puerperal fever notified during December in London included 4 in Plumstead, 2 in St. Pancras, 2 in Newington, and 2 in Battersea sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas, the deaths occurring in the institutions of London having been distributed among the different sanitary areas in which the patients had previously resided. During the four weeks ending Saturday, Dec. 28th, the deaths of 5828 persons belonging to London were registered, equal to an annual rate of 17·3 per 1000, against 16·0, 17·5, and 18·2 in the three preceding months. The lowest death-rates during December in the various sanitary areas were 11·1 in St. George Hanover-square, 11·4 in Lee, 11·7 in Wandsworth, 11·8 in Hampstead, Stoke Newington, and Battersea, 12·0 in Paddington, and 13·5 in St. James Westminster; the highest rates were 22·1 in St. Saviour Southwark, 22·6 in Shoreditch, 22·8 in St. George-in-the-East, 23·7 in Whitechapel, 24·7 in Clerkenwell, 24·8 in Newington, 26·0 in Bermondsey, and 26·7 in Holborn. During the four weeks of December 1009 deaths were referred to the principal zymotic diseases in London; of these, 423 resulted from measles, 264 from diphtheria, 119 from whooping-cough, 80 from scarlet fever, 69 from enteric fever, 50 from diarrhœa, 3 from small-pox, and 1 from an ill-defined form of fever. These 1009 deaths were equal to an annual rate of 3·0 per 1000; no deaths from any of these zymotic diseases were recorded in Stoke Newington or in St. Martin-in-the-Fields; in the other sanitary areas they caused the lowest death-rates in Paddington, Limehouse, St. Saviour Southwark, Rotherhithe, and Woolwich; and the highest rates in St. Pancras, Holborn, Clerkenwell, Bethnal Green, St. George Southwark, Newington, and Bermondsey. Three fatal cases of small-pox were registered in London during the month under notice, slightly exceeding the corrected average in the corresponding periods of the ten preceding years; of these 3 deaths, 2 belonged to Greenwich and 1 to Newington sanitary areas. The 423 deaths referred to

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MONTHLY ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON—DECEMBER, 1895.

(Specially compiled for THE LANCET.)

SANITARY AREAS.	Estimated population in the middle of 1895.	NOTIFIED CASES OF INFECTIOUS DISEASE.											DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.											Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON	4,392,346	31	1854	1093	—	343	6	19	520	—	3866	11·5	3	423	80	264	119	—	69	1	50	1009	3·0	5828	17·3	152
West Districts.																										
Paddington	122,756	1	39	13	—	2	—	—	7	—	62	6·6	—	—	1	2	3	—	1	—	1	8	0·8	113	12·0	138
Kensington	167,671	—	67	31	—	10	—	—	31	—	139	10·8	—	4	6	7	6	—	—	—	1	24	1·9	179	13·9	187
Hammersmith	108,429	—	36	15	—	4	—	—	7	—	62	7·5	—	10	1	3	10	—	1	—	2	27	3·2	127	15·3	163
Fulham	117,745	—	22	47	—	3	—	1	10	—	83	9·2	—	8	—	10	5	—	1	—	—	24	2·7	130	14·4	163
Chelsea	99,930	—	54	38	—	6	—	—	14	—	112	14·6	—	1	4	9	7	—	1	—	2	24	3·1	123	16·0	122
St. George Hanover-square	74,037	—	38	11	—	5	—	—	6	—	60	10·6	—	1	1	3	4	—	3	—	2	14	2·5	63	11·1	107
Westminster	54,003	—	7	12	—	4	—	—	4	—	27	6·5	—	6	—	4	3	—	1	—	1	15	3·6	87	21·0	151
St. James Westminster	23,149	—	14	6	—	2	—	—	2	—	24	13·5	—	—	—	—	1	—	1	—	—	2	1·1	24	13·5	235
North Districts.																										
Marylebone	137,392	2	39	23	—	11	—	—	20	—	95	9·0	—	9	2	6	4	—	2	—	2	25	2·4	208	19·7	137
Hampstead	77,592	—	29	6	—	9	—	—	6	—	50	8·4	—	4	1	2	—	—	—	1	—	8	1·3	70	11·8	123
St. Pancras	233,543	—	65	41	—	14	—	2	23	—	145	8·1	—	57	3	9	—	—	5	—	3	77	4·3	370	20·7	167
Islington	335,929	—	145	78	—	28	1	1	26	—	279	10·8	—	30	4	27	6	—	6	—	4	77	3·0	404	15·7	145
Stoke Newington	35,234	—	7	5	—	2	—	—	4	—	18	6·7	—	—	—	—	—	—	—	—	—	—	—	32	11·8	128
Hackney	215,623	—	127	66	—	24	—	1	25	—	243	14·7	—	11	4	18	6	—	8	—	2	49	3·0	274	16·6	119
Central Districts.																										
St. Giles	37,654	—	14	4	—	3	—	1	5	—	27	9·3	—	3	—	1	1	—	—	—	1	6	2·1	59	20·4	224
St. Martin-in-the-Fields	13,536	—	7	—	—	1	—	—	2	—	10	9·6	—	—	—	—	—	—	—	—	—	—	—	15	14·5	231
Strand	22,586	—	6	1	—	2	—	—	2	—	11	6·3	—	4	—	2	—	—	1	—	—	7	4·0	33	19·0	229
Holborn	32,188	—	6	4	—	2	—	—	5	—	17	6·9	—	12	2	1	3	—	—	—	—	18	7·3	66	26·7	229
Clerkenwell	65,036	—	29	16	—	6	—	—	13	—	64	12·8	—	24	3	9	—	—	—	—	—	36	7·2	123	24·7	119
St. Luke	40,763	—	7	11	—	1	—	—	4	—	23	7·4	—	1	—	1	1	—	—	—	1	4	1·3	61	19·5	174
City of London	33,824	—	15	2	—	4	—	—	5	—	26	10·0	—	2	—	1	—	—	—	—	—	3	1·2	47	18·1	164
East Districts.																										
Shoreditch	122,932	—	47	23	—	10	1	1	14	—	96	10·2	—	7	3	5	8	—	3	—	1	27	2·9	213	22·6	211
Bethnal Green	130,061	2	65	40	—	7	—	—	26	—	140	14·0	—	29	1	8	6	—	2	—	3	49	4·9	210	21·0	166
Whitechapel	75,820	1	50	24	—	4	—	—	10	—	89	15·3	—	1	7	11	2	—	2	—	1	24	4·1	138	23·7	166
St. George-in-the-East	45,227	—	32	21	—	5	1	—	10	—	69	19·9	—	—	2	2	—	—	1	—	2	7	2·0	79	22·8	214
Limehouse	56,885	1	25	5	—	3	—	—	5	—	39	8·9	—	1	—	2	—	—	—	—	1	4	0·9	70	16·0	98
Mile End Old Town	108,443	—	53	56	—	14	—	1	26	—	150	18·0	—	3	3	13	5	—	4	—	—	28	3·4	160	19·2	125
Poplar	171,230	3	115	88	—	21	1	1	33	—	262	20·0	—	2	7	13	8	—	4	—	—	34	2·6	241	18·4	182
South Districts.																										
St. Saviour Southwark	26,570	1	7	3	—	2	—	—	2	—	15	7·4	—	11	1	2	—	—	—	—	—	14	0·7	45	22·1	81
St. George Southwark	60,168	1	21	7	—	5	—	—	6	—	40	8·7	—	12	1	3	3	—	—	—	1	20	4·3	99	21·4	168
Newington	119,358	4	53	16	—	5	—	2	19	—	99	10·8	1	41	—	3	4	—	—	—	2	51	5·6	227	24·8	234
St. Olave Southwark	13,065	—	7	—	—	—	—	—	—	—	7	7·0	—	—	—	1	1	—	—	—	1	3	3·0	22	22·0	259
Bermondsey	83,861	—	23	7	—	6	—	—	7	—	43	6·7	—	41	—	4	—	—	3	—	—	48	7·5	167	26·0	156
Rotherhithe	40,713	1	22	5	—	—	—	—	5	—	33	10·6	—	1	1	—	—	—	—	—	—	2	0·6	46	14·7	151
Lambeth	284,883	2	163	60	—	29	1	—	29	—	284	13·0	—	35	6	12	1	—	5	—	4	63	2·9	362	16·6	112
Battersea	165,130	—	77	37	—	18	—	2	23	—	157	12·4	—	3	2	11	1	—	4	—	2	23	1·8	149	11·8	118
Wandsworth	185,956	—	73	26	—	14	1	—	10	—	124	8·7	—	—	1	5	4	—	3	—	1	14	1·0	167	11·7	147
Camberwell	252,737	—	84	91	—	26	—	—	30	—	231	11·9	—	33	8	17	11	—	4	—	6	79	4·1	335	17·3	169
Greenwich	175,183	11	73	81	—	19	—	—	25	—	209	15·6	2	12	3	23	3	—	1	—	2	46	3·4	254	18·9	162
Lewisham (excluding Penge)	82,410	—	44	22	—	7	—	—	8	—	81	12·8	—	—	—	4	2	—	1	—	—	7	1·1	86	13·6	132
Woolwich	42,768	—	14	9	—	—	—	1	4	—	28	8·5	—	1	1	1	—	—	—	—	—	3	0·9	52	15·9	122
Lee	38,832	—	17	15	—	3	—	1	5	—	41	13·8	—	2	—	2	—	—	1	—	1	6	2·0	34	11·4	140
Plumstead	61,494	—	16	27	—	2	—	4	2	—	51	10·8	—	1	1	7	—	—	—	—	—	9	1·9	64	13·6	88
Port of London	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 40 cases of membranous croup.

† Including deaths from membranous croup.

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measles exceeded the corrected average number by 144; among the various sanitary areas this disease showed the highest proportional fatality in St. Pancras, Holborn, Clerkenwell, Bethnal Green, St. Saviour Southwark, Newington, and Bermondsey. The 80 fatal cases of scarlet fever were 13 below the corrected average; this disease showed the highest proportional fatality in Clerkenwell, Whitechapel, and Poplar sanitary areas. The 264 deaths referred to diphtheria were 106 above the corrected average number; among the various sanitary areas this disease was proportionally most fatal in Chelsea, Islington, Hackney, Strand, Clerkenwell, Whitechapel, Mile End Old Town, Greenwich, and Plumstead. The 119 fatal cases of whooping-cough were little more than half the corrected average number; this disease showed the highest proportional fatality in Hammersmith, Holborn, and Shoreditch sanitary areas. The 69 deaths referred to enteric fever almost corresponded with the corrected average number; among the various sanitary areas the highest proportional fatality of enteric fever was recorded in St. George Hanover-square, Hackney, Mile End Old Town, and Bermondsey. The 50 fatal cases of diarrhœa were within 7 of the corrected average number. In conclusion, it may be stated that the mortality in London during December from these principal zymotic diseases was nearly 15 per cent. above the average.

Infant mortality in London during December, measured by the proportion of deaths under one year of age to registered births, was equal to 152 per 1000, and was slightly below the average. Among the various sanitary areas the lowest rates of infant mortality were recorded in St. George Hanover-square, Limehouse, St. Saviour Southwark, Lambeth, Battersea, and Plumstead; and the highest rates in St. James Westminster, St. Giles, St. Martin-in-the-Fields, Strand, Holborn, Newington, and St. Olave Southwark.

THE SERVICES.

MOVEMENTS OF MEDICAL STAFF.

SURGEON-MAJORS BARRINGTON and MACONACHIE have been posted to the Western District. The following officers have arrived from India:—Brigade-Surgeon-Lieutenant-Colonel Macrobin and Surgeon-Majors Johnston, Emerson, and Poynder, and Surgeon-Captain Stables. Surgeon-Major Allport and Surgeon-Captain Perry have arrived from Ceylon.

ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel James Henry Reynolds, M.B., V.C., retires on retired pay.

INDIA AND THE INDIAN MEDICAL SERVICES.

The services of Surgeon-Captain W. E. Jennings (Bombay) are placed temporarily at the disposal of the Government of Bombay. Brigade-Surgeon-Lieutenant-Colonel G. Hutcheson is reappointed to be Sanitary Commissioner, North-West Provinces and Oudh, vice Surgeon-Major S. J. Thomson (Bengal), who has reverted to his substantive appointment of Deputy Sanitary Commissioner of the North-West Provinces and Oudh. Surgeon-Lieutenant-Colonel Russick Lall Dutt, Officiating Professor of Materia Medica and Clinical Medicine, Medical College, Calcutta, and *ex-officio* Second Physician, Medical College Hospital, is appointed to act as Civil Surgeon of Burdwan until further orders, from date on which he assumed charge. Surgeon-Major Kerin, A.M.S., on arrival from England, is posted to the Mhow District. Surgeon-Lieutenant Tylor, A.M.S., on arrival from England, is posted to the Bombay District, temporarily. Surgeon-Colonel H. S. Muir, M.D., A.M.S., is brought on the Administrative Medical Staff of the Army, vice Surgeon-Colonel W. D. Wilson, A.M.S., who has reverted to the Home Establishment. Brigade-Surgeon-Lieutenant-Colonel R. C. Eaton, A.M.S., to officiate on the Administrative Medical Staff of the Army, with the temporary rank of Surgeon-Colonel, vice Surgeon-Colonel (temporary Surgeon-Major-General) T. Maunsell, appointed to officiate as Principal Medical Officer, Bengal Command.

NAVAL MEDICAL SERVICE.

The following officers have been appointed to serve on the flying squadron, consisting of *Revenge*, *Royal Oak*, *Gibraltar*, *Theseus*, *Charybdis*, and *Hermione*, commissioning for immediate service:—Fleet-Surgeons: J. C. B. Maclean to the *Revenge*, and H. A. W. Richardson to the *Royal Oak*. Staff-Surgeons: E. H. Williams to the *Gibraltar*, C. F. Newland to the *Theseus*, C. W. Sharples to the *Charybdis*, and D. T. Hoskyn to the *Hermione*. Surgeons: C. J. S. Kelsall to the *Revenge*, S. H. Birt to the *Royal Oak*, G. Sichel to the *Gibraltar*, and A. A. J. McNabb to the *Theseus* (all to date Jan. 14th).

VOLUNTEER CORPS.

Engineer: Fortress and Railway Forces (Royal Engineers): 1st Devonshire and Somersetshire: Hugh Peter Victor Wiggin, gent., to be Surgeon-Lieutenant. *Rifle:* 2nd Volunteer Battalion the South Staffordshire Regiment: Surgeon-Captain M. Taylor resigns his commission. 4th Volunteer Battalion the Queen's (Royal West Surrey Regiment): Ernest James Gibson Berkley, gent., to be Surgeon-Lieutenant. 1st Volunteer Battalion the Buffs (East Kent Regiment): Alan Murdoch, gent., to be Surgeon-Lieutenant. 2nd Westmoreland Volunteer Battalion the Border Regiment: Surgeon-Lieutenant W. B. Cockill to be Surgeon-Captain. 3rd Volunteer Battalion the Welsh Regiment: Surgeon-Lieutenant F. W. Evans, M.D., resigns his commission. 1st Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment): Richard Arnold Johnston, gent., to be Surgeon-Lieutenant.

VOLUNTEER MEDICAL STAFF CORPS.

The Manchester Companies: William Gill, gent., to be Surgeon-Lieutenant.

DEATHS IN THE SERVICES.

Inspector-General of Hospitals, George Cuninghame Meikleham, retired, M.D., A.M.D., at Southsea, on Jan. 1st. He served with the 51st Light Infantry during the war in Burma in 1852; was on board the East India Company's steam sloop *Sesostris* during the storming of Rangoon (medal with clasp for Pegu); joined the Army in the Crimea in March, 1854, served in Turkey after the end of the war, and was present at the siege of Sebastopol and assault of the Redan (medal with clasp and Turkish medal); served with the 70th Regiment during the war in New Zealand in 1863 (medal and clasp); and in the Abyssinian expedition in 1867–68 (medal). He joined the Army in 1843, became Surgeon in 1854, Surgeon-Major in 1863, Deputy-Inspector-General in 1870, and retired with the honorary rank of Inspector-General in the latter part of the same year.

Surgeon-Captain H. S. Wood, I.M.S., has passed the examination in Parvatiya, and Surgeon-Captain R. K. Mitter, I.M.S., has passed the Higher Standard Examination in Persian.

On Jan. 4th forty-two invalids were admitted to the Royal Victoria Hospital, Netley, ex ss. *Britannia*, from India.

Correspondence.

"Audi alteram partem."

THE CASE OF MRS. EVANS.

To the Editors of THE LANCET.

SIRS,—Undoubtedly your attention has been called to the reports in various daily papers headed "A Medical Man Censured," and as the reports seem to compromise on my action I should, with your permission, desire to place the circumstances as concisely as possible before my medical brethren. Some facts have already been placed, though somewhat briefly, before the general public, but it will be necessary to go more closely into details in your esteemed paper.

In response to a note addressed to me by the late Mrs. Evans I visited her at ten o'clock on Thursday night. The note did not contain any indication of the object of her request. I found her, however, in bed. My examination revealed an emphysematous condition of lung. When I examined with the stethoscope I discovered considerable cardiac debility; there was no murmur, but the sounds were somewhat muffled; there was absence of any friction sounds. The symptoms, however, did not call for urgent treatment, but on Friday morning I sent her a preparation containing strychnine and gentian. I visited her again on Friday night, and found a slight thrill, but on percussing the cardiac area I could detect no dulness. There were no friction sounds, but

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I feared I had to deal with a case of masked pericarditis. I, however, thought that the nervous system might be implicated, and on examining the knee reflexes they were found to be exaggerated. Sensation under the usual tests was only very slightly impaired. I could find no indication of paralysis. Up to this point it will be seen that there was no opportunity of examining the urine, even if the symptoms had pointed in the direction of the kidneys. Moreover, I had every reason to believe at the moment that a very complete examination of the urine had recently been made, and at the bedside I remarked, "We may assume then that the water is right." As the patient had suffered severely from sleeplessness it was decided to administer what I considered under the circumstances to be the safest hypnotic—viz., sulphonal. I sent two sulphonal powders containing 25 grains each, addressed to the husband, Mr. F. C. Evans. On the outside of the ordinary square envelope in which they were enclosed I wrote his name and address and "Sulphonal pulv. II. aa. gr. 25." I could not ascertain when they were administered, but the drug should have been given on Friday evening.

On Saturday evening I saw her at 9.45. She was in a semi-comatose condition, and the temperature at this time was 99·4° F. There were stertorous breathing and marked contraction of the pupils. The breathing was fairly regular, though laboured. The patient seemed to me to be under the influence of a preparation containing an opiate, and I treated her on that assumption with the usual means, having remarked that the patient had had an "opiate." She regained consciousness, and I was astonished to hear her say, "Don't let the children know I have done it." Considering the urgency over I did not press for an explanation. A message was sent from my surgery asking me to return. I then left the patient, the husband suggesting that he could "manage." On Sunday morning I received no message, but I sent to inquire. In response I received the following letter:—

"DEAR BUTLER,—My wife rallied after you left and spoke quite sensibly to me. She sat up in bed at 1 A.M. and said she was much better. I lay down at her request then and woke several times during the night, when she seemed quite herself again and expressed herself sorry for having been the cause of so much trouble. When I awoke at 9 A.M. she had again become unconscious and remains so now. I have injected ether twice, one drachm each time, but she does not even feel the needle. I could not give her any coffee, though I made some, as she could not swallow. Bathing the face has no effect. She is almost pulseless. I can hardly count the number, but think it is about 130 per minute. Do not trouble to come if busy; I am doing all I can.

"Thanks for inquiry,

"F. C. E."

Being somewhat astonished at the condition—and especially as a pulse of 130 was totally inconsistent with sulphonal—I visited the patient in spite of the letter, and she died in the afternoon at 1.30. I did not feel justified in writing a certificate without further consultation. The husband and I drew up a statement of facts and laid them before Dr. George Robertson, whose judgment on this bare statement was that the certificate might be granted, stating that death was due to—anæmia, six months; influenza, four days. To this at the moment I felt bound to submit, but insisted to the husband in a private interview (there and then) that I should have to explain my seeming dissent more fully to Dr. Robertson. I subsequently did so, and he advised to let the matter rest. Next day I wrote the following letter, which I personally delivered at his house:—

38, Carlton-vale, N.W., Dec. 24th, 1895.

DEAR DR. ROBERTSON,—I am decided. In the event of a voluntary examination, do you agree to be present? The result might prove my fears to be groundless. No narcotic; no publicity. To avoid anything of that kind I will go any length consistent with honour, and I shall be thankful for any suggestion towards sparing poor Evans's feeling as much as may be.

Yours sincerely,

G. R. BUTLER.

That evening I communicated with the coroner, and on the following day he decided to hold an inquest. This he did on Saturday last. The death was there described in highly scientific terms as due to "stoppage of the heart's action," and I was ordered to be "severely censured." Dr. Gordon Hogg accordingly severely admonished me "for prescribing a dose of sulphonal without first making a proper examination" and for "carelessness." These are the circumstances, and I have no doubt they will be helpful to many of my professional brethren. I may, however, add that the patient had had for a long period of time a fear of impending death and other morbid ideas. Regarding the dose of sulphonal, I scarcely need say that twenty-five grains would do very little harm under any circumstances when properly administered. In the *Archives für Experimentelle Pathologie und Pharmacie, Leipzig*, vol. xxxi., No. 1, Kast gives the symptoms of poisoning by sulphonal as vomiting, diarrhœa, nervous and urinary phenomena, and states that it is generally admitted that doses of thirty-one to thirty-six grains may be safely administered. Given within those limits he describes it as a "harmless medicament." The cases of poisoning by sulphonal have always occurred after prolonged use of the drug in enormous doses. Schaumann insists that it is preferred to chloral hydrate, because it has no injurious effect upon the heart and vessels. Schedtler has published forty-one cases of female patients to whom doses of thirty-one grains have been given for prolonged periods without any untoward symptoms, and forty-six grains have been very often necessary especially in "melancholia with anxiety." It is not enlightening to hear a jury of tradesmen discussing the therapeutics of sulphonal; but it seemed to me deplorable that the police surgeon, who officiated in place of an expert, should betray so much unfamiliarity with so common a drug as to insist that five grains might be a dangerous dose. Such a statement is perfectly absurd under any circumstances, and a medical man has a right to expect that a medical coroner should be able of his own knowledge to defend a brother practitioner from such assertions. I challenge his accuracy. Dr. Hogg knows perfectly well (if he knows the literature) that twenty-five grains of sulphonal is a non-toxic dose. The symptoms were not those produced by sulphonal, and he did not take pains to inform the jury of the nature of the contents of the stomach before he accepted their verdict. The verdict of "Died through the visitation of God," which the old legal coroners gave, does not excite more contempt in the minds of practitioners than that of Dr. Hogg's jury of "Death from stoppage of the heart."

I have to complain that I was not permitted to be present to hear Mr. Evans's evidence. One would have thought that the coroner would have been pleased to have my assistance. How could he expect it if I did not hear the whole of the evidence? The circumstances appear to me to indicate that medical men are not safe from "public censure" or even public insult, although using every endeavour to exercise their calling with the honour which is its due. In this case I have been compelled to go into the forum and attempt the impossible task of explaining the matter *coram populo*.

I am, Sirs, yours faithfully,

Carlton-vale, N.W., Jan. 1st, 1896. GEORGE R. BUTLER.

*** Assuming that the above letter fully represents the facts of the case, we are of opinion that the sulphonal (gr. xxv.) had nothing to do with causing the death. Considering that our correspondent assumed that an opiate had been taken, and especially after the alleged statement of the deceased, we think he would have acted wisely in declining to entertain the question of giving a death certificate without first having informed the coroner. As regards the circumstances related as having occurred at the inquest, we think Mr. Butler was not dealt with too generously.—ED. L.

"PARACENTESIS OF THE THECA SPINALIS."

To the Editors of THE LANCET.

SIRS,—*Apropos* of Professor Quincke's paper, read before the Association of German Naturalists and Medical Men, on "Paracentesis of the Spinal Theca," in which he says that failure to secure a flow of fluid is to be attributed to imperfect performance of the puncture—e.g., the passage of the needle between the nerve roots outside the sheath or the presence of thick pus which will not flow through a too fine needle—Professor Fürbinger writes, in an article in the *Deutsche Medicinische Wochenschrift* of Nov. 7th, 1895, in reply to a remark of Professor Ewald, who had several times observed that the puncture produced no fluid although it had penetrated into the spinal theca, the following:—

"I observed in the concluding remarks of my paper, read before the Berlin Medical Society, on 'Clinical Importance of Spinal Puncture,' that I frequently had the same experience as Ewald. I had succeeded in drawing hardly any liquid, without the needle having passed the surface of the dura. I consider these facts as pathological, because the average corresponds to a considerable quantity of cerebro-spinal fluid in the lumbar sac. These statements have not,

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however, prevented Quincke, in the meeting of naturalists and medical men, from observing: 'The failure regarding the negative result of the puncture, such as Fürbringer describes, may be attributed to technical errors.' I do not know whether the speaker entirely meant this, as I observe that the sentence is missing in the original publication, which has just appeared. It remains, however, uncontradicted in various medical papers, which fact justifies my going into the matter thoroughly, and trying to find out with what right such a reproach is made. That can hardly be done by the way of theoretic reasoning, but a hard matter-of-fact basis in the form of a post-mortem discovery is necessary in such 'negative' cases, an expression, perhaps, more concise than absolutely correct. Only direct inspection of the cerebro-spinal sac can give a certain answer to the question whether technical errors have been avoided or whether the needle really 'slipped to the side' or between the roots of the 'nerves,' or whether it was 'too short' or 'too thin.' I am able to answer this question, as I—quite contrary to my usual custom—in April last performed lumbar puncture fourteen times on a child with negative results, and the pathological anatomist showed me, *ad oculos*, why I had produced no fluid during life. The case (although by no means unique in my own experience, and for experienced pathological anatomists not especially rare) is of great interest and of importance in the question we are discussing; I therefore give a short *résumé* of it.

"The patient, a child aged five months and a half, had, according to the statement made by the parents, five weeks before he was brought to the Friedrichshain Hospital on April 8th, 1895, received a violent blow on his head. Five days before admission to the hospital vomiting had occurred, and since then fever and convulsions. The last two days the child had taken no nourishment. The parents were healthy. On examination the child was found to be in a good state of nourishment, but suffering from fever and torpor. There was decided opisthotonos. The face bore an expression of pain when the head was moved. The arms were held forward. When touched the child screamed. The body was much swollen. The large fontanelle was decidedly prominent and much stretched. Partly because of the last-mentioned fact, and partly because the diagnosis wavered between tuberculosis and purulent meningitis, I at once applied spinal puncture, and in spite of the hopeless nature of the case performed the operation eight times at different parts of the lumbar spine. Although I had not the remotest doubt that the needle was free in the lumbar sac I did not succeed in procuring one drop of cerebro-spinal fluid, not even after I had (against my principle) applied aspiration. The temperature became almost normal, otherwise the patient remained in the same state. In the night the temperature rose again. Next morning I again tried lumbar puncture. In spite of six injections only a drop of blood was discharged, but no other fluid. On April 9th the patient died.

"The result of the necropsy made the following day by Dr. Hansemann was as follows. The lymphatic gland, as in the root of the lungs as far as the jugulum, had become caseous; the lungs, spleen, liver, and mesenteric glands were permeated with numerous, mostly fresh, tubercles. Regarding the state of the brain and spine I quote Hansemann's *dictat* word for word: 'The front fontanelle was much extended. On opening the brain a large quantity of clear fluid was discharged, which proceeded solely from the ventricles, while the gyri were much flattened on the surface and the pia firmly attached. The whole of the base is converted into a gelatinous yellowish-white œdematous mass permeated with numerous tubercles. This gelatinous mass extends along the spine, on the posterior as well as the anterior surface, so that the dura is much stretched, not from the liquid but from this œdematous, spongy mass, which is here, as at the base of the brain, permeated with submiliary tubercles. Loose, flat blood coagula lie on this mass between it and the dura, chiefly at the cauda equina, and extend over the lumbar swelling, where they are all confluent; higher up, however, they again become scanty and decrease in size as they approach the cervical spinal cord.' I add to the above statement that, as far as recognisable, all the punctures in the lumbar region—I naturally only punctured in this region—perforated the dura mater, and that there was no sign of any damage to the nerve roots of the cauda. The lumbar punctures did not, therefore, as this precise anatomical inquiry proved, fail because the needle slipped to the side, also not because it was too long or too short; finally, also not because it penetrated into the nerve roots or the spine, but simply because, by reason of the morbid alterations, no fluid existed. A 'technical error' had never been suggested. It seems to be worthy of notice in Lenhartz's above-mentioned statement in the discussion of Quincke's paper that out of fifteen cases where he had performed puncture the majority were without result, although the needle was doubtless in the vertebral canal, and, further, Von Ziemssen's observation that it is surprising to find with uræmia only a few drops of fluid in the cerebro-spinal sac in spite of the high pressure. I must observe that out of my three or four 'quite negative' cases one patient suffered from uræmia. Anatomical investigation was unfortunately not possible in any of these cases. In two of the cases, where basal meningitis existed, I suspected similar complications as in the above-described case. Finally, I must not omit to mention that the post-mortem examination of a uræmic patient, in whom lumbar puncture had only produced a few drops of cerebro-spinal fluid, revealed the same in 'vanishing quantity' in the region of the spinal sac. Thus in this case also the illness, and not the physician, was responsible for the failure of the puncture. I shall, therefore, continue in further 'negative' cases—naturally not without careful examination in spite of my ever-increasing practice—to exclude the possibility of technical errors on my part, but my next step will be to consider the opinion I expressed seven months ago as corresponding to the pathological state. It is possible that lumbar puncture may be considered in this direction from a new point of view, rather scientific or diagnostic than practical or therapeutic. With regard to the latter, I refer to later reports of my experiences. I recognise with pleasure the unexpectedly favourable opinion which Quincke and Von Ziemssen have given on the therapeutic value of the method, and which spurs me on to bring lumbar puncture (latterly somewhat neglected) in my wards to a state of perfection."

I am, Sirs, yours truly,

Baden-Baden, Dec. 1895. W. H. GILBERT, M.D.

"WORD-BLINDNESS AND VISUAL MEMORY."

To the Editors of THE LANCET.

SIRS,—The article by Dr. James Hinshelwood in THE LANCET of Dec. 21st, 1895, is one of the most, if I may be allowed to say so, interesting and instructive papers which has appeared in THE LANCET for many a long day—aye, and for many a short one too. The article has a special interest for me because Dr. Hinshelwood mentions, besides word-blindness—(1) "visual memory for places"; (2) and (3) "visual memory for form and colour"; and (4) "visual memory for figures," each having localised cortical centres in the brain; for, as Dr. Hinshelwood states, "there exist partial, special, or local memories, each of which has its own special domain." Now phrenology, which has been a pet subject with me for many years, and on which I have written a small book, has conditions showing all these four memories. 1. "Visual memory for places" is locality in phrenology. Dr. Gall, the originator of the study, noticed, when he was a boy at school, that one of his schoolfellows, although of moderate abilities, could always find the trees in which they had set snares for birds without the slightest hesitation, whereas he had the greatest difficulty in discovering those they had marked. Later in life Dr. Gall, putting a plaster cast of this boy's head side by side with casts of men who had the gift of finding without any difficulty places they had once seen, was able to satisfy himself that locality was marked by an enlargement above the eyes on each side of the root of the nose. Dr. Gall termed the instinct *sens des localités, sens des rapports de l'espace.* (2) "Visual memory for form and (3) colour" Dr Gall termed *mémoire des personnes, sens des personnes, sens des rapports des couleurs.* He placed the former enlargements on the inner sides of the superciliary ridges, and No. 3 in the outer parts of the ridges, in close approximation to No. 4. In connexion with (4)—"visual memory for figures" (*sens des rapports des nombres*)—Dr. Hinshelwood mentions the "calculating" men of the present day, MM. Inaudi and Diamandi. In the early part of this year I interviewed M. Inaudi in Paris at the Hôtel St. Pétersbourg, at the time he was exhibiting at the music-hall Olympia. He told me that his extraordinary memory for figures, is, as Dr. Hinshelwood states is in the

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case of Diamandi, from his mental picture of the figures—a visual memory. Besides these four visual memories there is word-blindness, which seems to fill the place of Dr. Gall's *sens des mots*, *sens des noms*, *mémoire des mots*, *mémoire verbale*, or verbal memory. In my book on Phrenology[1] I have illustrated (p. 66) verbal (visual) memory by a marked case in this town. The instinct is characterised by prominent eyes showing a large amount of the white portion of each cornea. The woman from whom the sketch was taken—and it is so good a likeness that she has the original drawing hanging framed in her

room—has an exceedingly good memory for what she has read. She can repeat word for word, she and her husband have told me, anything she has read once in a newspaper. She tells me that she cannot account for her extraordinary memory—that, when repeating, she does not see the printed words before her.

It will be noticed that the phrenological enlargements for (1) locality, (2) form, (3) colour, and (4) number have all been located in close connexion with the eyes; that (5) verbal memory is a condition of the eyes themselves; and, further, that Dr. Gall located them long before these visual memories, each having "its own special domain" in the brain, were thought to exist. I am, Sirs, yours faithfully,

Canterbury, Dec. 27th, 1895. PUGIN THORNTON.

DOUBLE CEREBRAL ABSCESS.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Feb. 2nd, 1889, you published for me a case of convulsions with increasing coma in a boy aged fourteen, with a history of a kick from a horse three years previously, leaving a scar on the forehead, through which I trephined and drained a large old-standing abscess in the left frontal lobe with almost entire relief of symptoms and every promise of complete success until the fifth day, when coma again supervened, followed by death. Post mortem a second old thick-walled abscess (two ounces) was found in the *opposite temporo-sphenoidal lobe*, of the existence of which there had been no hint during life, no middle-ear disease being found post mortem. This quite unsuspected abscess was difficult to account for, the only possible origin seeming to be a contrecoup at the time of the original injury. I did not hazard this unsatisfactory explanation of the pathology of the case and was disappointed in any hopes of enlightenment from your correspondents, but the point which seemed to make the case worthy of record was the existence of two quiescent and unrecognised cerebral abscesses, of which the second produced no symptoms until the brain was disturbed by the operation on the first, a condition which I thought might explain other cases where the draining of a cerebral abscess was followed by an unfavourable result, or where fatal coma occurred unexpectedly in various cerebral derangements. Now I see recorded in the current *St. Thomas's Hospital Gazette* a case in which Mr. Anderson drained in the usual way a cerebral abscess following mastoid disease, with complete relief of symptoms, even to the clearing up of optic neuritis, but ending in fatal coma in the second week, and at the necropsy there was found an inch deeper than the first abscess cavity—which was undergoing a perfect process of cure—a second old thick-walled abscess, unsuspected during life and presumably the cause of death. In both cases, it will be noticed, there was no question of the second abscess being of pyæmic or embolic origin. They are both cases proving to be double cerebral abscess, in which the discovery of one abscess fully accounted for all symptoms, the second being unthought of. May I once more, through your columns, draw attention to this point, surely one of sufficient practical importance, and on which I shall be glad of the opinion of those better qualified than myself to speak?

I am, Sirs, yours truly,

Bromsgrove, Dec. 26th, 1895. CAMERON KIDD.

[1] Heads and What They Tell Us. Sampson Low, Marston & Co., London.

"THE BATTLE OF THE CLUBS."

To the Editors of THE LANCET.

SIRS,—Some time back I was called upon and asked to take charge of a medical society about to be started in the town where I lived; the names of men in good practice in my neighbourhood were mentioned as of those holding similar appointments. I had no knowledge of the working of the society and was too busy at the time to go into it, and therefore consented. Lately, my attention being drawn in the medical papers to the abuses introduced by medical aid societies, and the way in which they degrade medical service and those who render it, I determined to give three months' notice and sever all connexion with them. My time expires at the end of this year, but already my place is filled up by a new arrival. What has been the use of my resignation? I only help another to oppose me, which in a small place is unfortunate. Until some concerted action is taken we are powerless; the profession is so flooded, there will always be found some only too ready to take the smallest chance that offers of commencing practice. I am, Sirs, yours faithfully,

December, 1895. DISGUSTED.

A CRITICISM OF THE RECENT SURGICAL TREATMENT OF MALIGNANT DISEASE OF THE BREAST.

To the Editors of THE LANCET.

SIRS,—The "disappointing results" of the surgical treatment of malignant disease of the breast are not wholly accounted for by the intimate connexion of the lymphatics of the breast and neck which Dr. Robert Sanderson describes in THE LANCET of Dec. 21st, 1895. His reminder that the lymphatics freely cross over the clavicle from the breast to the neck and also enter the posterior triangle through the axillary apex is a wholesome one for operative surgeons. But, according to the anatomical investigations of Stiles of Edinburgh and others, lymphatic vessels also dip down into the pectoral fascia and muscles, course along the intercostal spaces, and enter the thorax to join the mediastinal glands, while others run in the suspensory ligament across the sternum to join the lymphatic system of the opposite breast. Upon the theory of local origin and subsequent infection of the neighbouring lymphatic glands wide and extensive operation is clearly indicated. Sir Benjamin Brodie used to leave cases alone when the axillary glands were affected. Sir Joseph Lister advised removal of the enlarged glands along with the breast. Mr. Banks tells us that an imperfect operation leaves a patient in a worse plight than if she had been left alone, and advises a "clean sweep" of both breast and axilla, whether the glands be obviously affected or not. Yet it is still questionable whether the general recognition of the intimate connexion of the lymphatics of the breast with all the neighbouring glands

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has been of practical benefit. In former times it was quite exceptional to find the results of cancer surgery so fully reported that we can show them to have been disappointing by exact statistical records; yet no one doubts that they were bad, and the increasing severity of modern operations is based upon our conviction of the worthlessness of the earlier surgical procedure. In the present day there is much greater operative activity; yet there is the same lack of statistics. Quite recently Mr. Arbuthnot Lane[1] of Guy's Hospital published "A Case illustrating a very Effectual Method of treating Extensive Malignant Disease of the Breast" from a single woman aged twenty-nine, who had developed carcinoma of the right breast only five months previously. He removed the middle third of the clavicle, tied the subclavian artery and vein, and made a clean sweep of the subclavian triangle, though its glands were not obviously affected. Then he made an incision nine inches in length along the middle line of the sternum and extended the incision at what seemed a safe distance from the growth to the posterior fold of the axilla, and thence to the outer end of the clavicle. In order to cover this enormous wound, more than nine inches in diameter, he made a large and sufficient flap from the skin over the deltoid. Next, he amputated the arm at the shoulder-joint, and, lastly, he dissected all the soft parts from the sternum, clavicle, ribs, cartilages, intercostal muscles, serratus magnus, and posterior wall of the axilla. No one has commented upon an operation of such novel magnitude except Mr. Rutherford Morison of Newcastle-on-Tyne, who, it appears,[2] had forestalled Mr. Lane upon two occasions. It is the logical outcome of our increased knowledge of the lymphatic anatomy of the breast, and now that a lead has been given it is likely to be followed more or less extensively. Comment, therefore, is almost obligatory. In Mr. Lane's patient the new growth was found to involve the greater pectoral muscle—a common occurrence, and one which absolutely prevents assurance of complete eradication of the disease, for it is impossible to remove the mediastinal glands which drain the pectoral muscles. It might be argued that as the mediastinal glands had to be left the glands of the neck, which were not obviously diseased, might as well have been left also; but the practical answer is that one must do what one can. There are, however, no statistics to show the results of the recent surgical treatment of cancer of the breast. The operations have increased in severity, but there is a suspicion that the results in prolongation of life are no better. It would, perhaps, be invidious to refer particularly to the many papers upon cancer surgery which have appeared during the past decade. Availing myself of the meagre statistics to hand, I endeavoured to show, in a paper which I lately read before the Liverpool Medical Institution, that we possess no evidence such as would convince men of ordinary business capacity that life is prolonged by the numerous and heroic operations which are now performed upon patients with cancer of the breast, uterus, or alimentary canal. Events clearly show that malignant disease is constitutional, yet we act as if it had been conclusively proved to be a mere local affection. Sir James Paget has said that cancer of the breast does not fail to return after amputation more than once in 500 cases. Of course, as Mr. Bryant has recently pointed out, simple cysts of the breast are sometimes mistaken for cancer, and these, one need scarcely say, never return after removal. Chronic mastitis has also been mistaken for cancer. In rare and exceptional instances patients live for many years without recurrence of their disease, which appeared to be cancerous, and ultimately die from something else. But it is freely admitted that in the large majority of cases death after operation for malignant disease is an affair of a few months. It is only by a serial and methodic investigation that these discrepant results can be explained. Such inquiry would be of the highest value to the profession, and I hope soon to take some part in promoting it. Even though the inquiry should prove unfavourable to the surgical measures which are now in vogue we shall not be content to sit helpless, with folded hands, for pathological research already gives promise of another and perhaps more scientific mode of treatment.

I am, Sirs, yours respectfully,

E. T. DAVIES,

Assistant Surgeon to the Hospital for Women, Liverpool.

Jan. 5th, 1896.

[1] THE LANCET, Oct. 12th, 1895.
[2] THE LANCET, Oct. 19th, 1895.

DIPHTHERIA AND ITS PROPAGATION BY MEANS OF SCHOOLS.

To the Editors of THE LANCET.

SIRS,—There are many points in the reports of the various medical officers of health which are considered of trifling importance at the time and yet in the light of subsequent experience are proved to be of great value. The question in sanitary science which is occupying our minds most at the present time is as to the influences which are mostly at work in the production of diphtheria. One important observation has been made by Mr. Shirley Murphy, medical officer of health of the London County Council—viz., that an epidemic often breaks out when children meet together in the schools after the holidays—but another, equally important, has been made by Mr. Biddle—viz., that the cases fall off as the term goes on. And in order, if possible, to reconcile these apparently irreconcilable facts I have suggested that the cause of these school outbreaks may be due to imperfect flushing of drains during the holidays. In support of this contention I would cite a case which was told me by Dr. Gibbes, medical officer of health for the Kingston rural sanitary district, and no doubt put forward in one of his annual reports. Some time ago he said he had two or three outbreaks in the schools of a neighbouring village, and that, in spite of their being closed on more than one occasion, fresh outbreaks occurred immediately on their being reopened. At last he had the drain thoroughly well flushed with a strong solution of corrosive sublimate, and the epidemics then completely stopped. Of course this may have been a mere coincidence, but there could not possibly be any harm in having the drains thoroughly flushed with some strong antiseptic before each term commenced.

I am, Sirs, your obedient servant,

Surbiton, Jan. 6th, 1896. F. P. ATKINSON.

"ARE HOSPITALS TO BECOME MEDICAL CLUBS?"

To the Editors of THE LANCET.

SIRS,—In your issue of the 28th ult. (page 1671) you have an article on a meeting of the committee of the Swansea Hospital to discuss a report of the medical staff on this subject, in which you warn the working men not to be led by me save on military matters. However indifferent anyone may be to the smiles or frowns of public opinion, yet it is not pleasant to find your article repeated in the local papers. I see myself in the not very enviable position of being held up to the working men as one whose counsels are to be avoided, as if I had really been guilty of some crime in the opinion of others than THE LANCET; but if you think you had cause to warn them against me I had, I consider, better and more just reason for warning them not to be led by a report in THE LANCET of a meeting of a hospital committee, more especially at Swansea, and I do protest against the unfair way you have placed the matter before the public. You state: "Colonel Morgan said in his opinion working men had a right to their admission, and the benefit need not necessarily be a charity. Where can right come in when, as everyone knows, the hospital was for serious cases which cannot be accommodated at home or paid for without straining a working man? As the chairman said, There are the rules—we cannot alter them." Now, who reading this would suppose that Colonel Morgan and the chairman were one and the same person? The only charitable conclusion I can arrive at is that you likewise did not realise it, and so unwittingly you made the same mistake as did Balaam the son of Beor some thousands of years ago. As regards the first part, from the way you put it it means one thing; but, had you not omitted to state that the only rights I claim for them are to select or nominate their cases the same as any other subscribers, it would then have meant something different. You ask, "Where can the right come?" I reply, because we have promised it, and we ought to keep our word. I enclose a letter I wrote to the *Cambrian* on this subject on Dec. 20th, in which you will see exactly what my ideas are, and if you will do me the honour to criticise them I am quite prepared to meet you as regards the conclusion arrived at by the hospital committee that "subscribers be requested to investigate the cases they recommend." I thought it answered all the requirements, and believe it is

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the only solution of the question, so I much regret that in my opinion we have been dragged into this "Battle of the Clubs" quite unnecessarily.

I am, Sirs, your obedient servant,

W. LL. MORGAN,
Lieut.-Colonel, late Royal Engineers; Chairman, Swansea Hospital.

Brynhiallu, Swansea.

*** We find from Colonel Morgan's letter to us and his letter to the *Cambrian* that we have misunderstood his position in the hospital and in regard to the question of hospital abuse. Colonel Morgan does not, we are glad to point out, allow the right of admission to working men to the use of hospitals, unless *in their opinion, and in that of the hospital committee, the cases are suitable.* He remarks in the letter to our contemporary that "the whole remedy lies with the subscribers, who should see that they only recommend suitable cases, and they ought to remember the charity of the medical staff in so kindly and generously giving their services, and see that their goodness be not abused and used to their detriment." We could not state the case better in any language of our own. We trust to the good sense of the working men to appreciate the distinction between the hospital as an institution for severe and exceptional cases and a medical club where ordinary disease has to be treated. They and their families have the exclusive use of the hospitals. These institutions are chiefly supported by the wealthier members of the community, and cheerfully so. But the subscriptions of the working men are most gratefully received and much appreciated, so long as they are not used so as to alter the whole conception of the hospital as an institution officered by medical men who give their services gratuitously in extreme cases.—ED. L.

CORONERS AND INQUESTS.

To the Editors of THE LANCET.

SIRS,—A matter has arisen recently to which I should like to draw your attention. On Christmas Day I met a messenger with a note, in which it was stated that a certain person was dangerously ill. On going to the house I found that the patient had been dead some hours. I then learnt from the registrar that the coroner had directed him to register the death. I could not communicate with the coroner until yesterday, and I presume the friends and the registrar between them managed to satisfy the coroner. Should an inquest not have been held in this case, as the deceased had not been medically treated for years? When called I expressed to a relative the belief that apoplexy would probably have been the cause of death, and I have been thinking they have made use of that information. Would a fee of 7*s.* 6*d.* be too much to charge for the visit, the place being three miles from my house, although I was going there when I met the messenger? I was in the house half an hour after meeting the messenger, or about an hour after the note mentioned above was written, so that the person who wrote the note knew at the time of writing that the patient was then dead. I shall probably have a reply from the coroner to-morrow.

I am, Sirs, yours truly,

Crick, Rugby, Dec. 27th, 1895. WM. WALLACE.

*** In our opinion, given on the facts stated, an inquest should most certainly have been held. The fee mentioned is quite reasonable.—ED. L.

"LIFE INSURANCE OFFICES AND THE PROFESSION."

To the Editors of THE LANCET.

SIRS,—I cannot help admiring the conduct of "M.D." with regard to a certain life assurance society. I say "a certain," because the society is probably well known to most members of the profession who have been in practice for some years. But there is another aspect to which I may be permitted now to refer. I allude to half-fees. Well may "M.D." say that "we should present an unbroken front." Quite recently I was asked to examine a patient for half a fee (10*s.* 6*d.*) and refused; a brother practitioner acted likewise, but without knowing what I had done; a third, I regret to say, utterly disregarded the dignity of the profession.

I am, Sirs, yours faithfully,

Jan. 8th, 1896. ÆSCULAP.

PROMOTION IN THE SENIOR GRADES OF THE ARMY MEDICAL STAFF AND INDIAN MEDICAL SERVICE, AND ITS PRESENT EFFECT ON THE SISTER SERVICES.

To the Editors of THE LANCET.

SIRS,—It is not long since those officers of the Indian Staff Corps who are either in command or second in command of the native regiments obtained a wise concession from the Secretary of State granting them brevet rank in consequence of the constant supersession to which they were subjected owing to the greater celerity of promotion in the British regiments over that obtaining in the Staff Corps. I am desirous to direct attention to the present position of the officers of the Army Medical Staff serving in India, contrasting it with that of the officers of the Indian Medical Service, and to call the notice of the authorities to the condition which now obtains and to ask if some method cannot be devised to equalise the rank among the senior medical officers of the two services in India and prevent the supersedure of the officers of the "home" by those of the India Service, which is now and must be the prevalent condition for a long time to come, unless means be devised to do away with the injustice.

One measure which might possibly be of avail would, as in the case of the senior officers in native regiments, be the granting of brevet rank to the administrative officers of the Army Medical Staff while serving in India, but as the tendency in these days is to reduce brevet steps, and as its introduction might be productive of many complications, it would be well if the only real remedy for the evil—a remedy which would moreover, in my opinion, have a far-reaching beneficial effect—were at once applied: I refer to selection for merit in the higher grades of the Army Medical Staff.

The causes which have led to the present state of affairs in India are two in number, but it is only with the second that I intend to deal here, as the first is an accidental one. They are: (1) the circumstance that between the years 1860 and 1865 no officers were admitted to the Indian Medical Service, which has had a material influence in quickening the promotion of those joining the Indian army in and after the latter year; and (2) the method of regulating promotion to the senior grades which obtains in the so-called "home" and in the Indian Service. With reference to the latter and more important cause I should like to point out that, while in the Indian Service a judicious use is made of the regulation permitting selection for merit when filling the higher ranks, this most beneficial order is practically a dead letter where the officers of the Army Medical Staff are concerned. It is true that men who are not deemed fit for promotion from physical causes are occasionally made to retire, but I have long noticed the decided bias against passing men over and in favour of allowing promotion to the higher grades to go by seniority alone without any due regard to fitness for administrative duties.

I have drawn up a table showing that, taking the six seniors of the grade in the Army Medical Staff and in the medical services of the three presidencies, the rank of brigade-surgeon-lieutenant-colonel has been attained by the officers of the Army Medical Staff after thirty years' service, by those of the Bengal service after twenty-six years, and by the officers of the Bombay and Madras services after twenty-seven and twenty-eight years of service respectively. It should also be observed that three of the surgeon-colonels now serving in the Bengal army attained the rank, one in twenty-six and two after only twenty-seven years' service, and that the surgeon-major-generals of the Indian Service in Bengal were gazetted to this, the highest rank in the department, after only thirty years of service, that now, while enjoying this rank, they are the contemporaries of the brigade-surgeon-lieutenant-colonels of the Army Medical Staff, and thus supersede many officers of the Army Medical Staff with much longer service to their credit. Thus Surgeon-Colonel T. Maunsell, A.M.S., has been serving under Surgeon-Major-General Harvey, I.M.S., while the former has nearly five years' more service than the latter. In Madras, Surgeon-Colonel Churchill, A.M.S., is serving

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under a surgeon-major-general of the Madras Service eight years his junior; and the second surgeon-colonel (at Bangalore) is three years senior, by length of service, to his chief. Every administrative officer of the Army Medical Staff sent to India will in the future be superseded in this manner unless selection be adopted or some other means be devised to do away with this evil, and it appears to me that, not only for the reason dwelt on here, but for many other and weighty considerations, selection is urgently necessary in the interests of the department if efficiency is to be hoped for. By its introduction competent officers who can hold their appointments for from three to five years can easily be secured, and the fatal system of "extension of service" can be abolished. It is to be feared that without selection the Army Medical Staff will continue to drift into inefficiency and its best officers will suffer disappointment. The senior executive officers have now over thirty years' service with, in many cases, hardly any hope of promotion. As the department is now regulated, good, bad, and indifferent men all receive the same treatment, and there is naturally little zeal. It may be that with the new era which has now commenced at the War Office this old bias will be swept away and that more life and vigorous fitness will be infused into the department. Such a state of things would, without question, be of considerable benefit to the army.

I am, Sirs, yours faithfully,

Dec. 30th, 1895. SELECTION.

THE RECENT DEATH SENTENCE FOR CRIMINAL ABORTION.

To the Editors of THE LANCET.

SIRS,—Referring to the recent sentence of death upon a midwife who had procured abortion in a case which ended fatally, it may be well to remind those who are apt to regard this crime as not after all very criminal that only twenty years ago Alfred Thomas Heap of Manchester, nominally a chemist, but really an abortionist, was convicted and hanged for this offence. He had procured abortion by transfixing the uterus with a Manchester spindle, in consequence of which injuries the woman died shortly afterwards. Baron Pollock, who tried the case, told the jury that if they were satisfied that the prisoner had used the instrument for the purpose of procuring abortion the death of the woman following this unlawful act made it murder. The jury found the prisoner guilty, but recommended him to mercy, in ignorance of the fact that he had previously undergone five years' penal servitude for the same offence. No hope of mercy was held out, and no serious attempt was made to obtain any commutation of the sentence. But was he any more guilty than the women who make this a regular trade? That the crime is very common is too well known; that to secure a conviction is very difficult is equally true; and those who commit it must not expect leniency from judges and jurors. There are few, if any, medical practitioners who have not at some period of their student or professional career been tempted with heavy bribes to commit this crime; but it is one of the boasts of the profession that, with very few exceptions, all its members have been too honourable and right-minded to listen to such temptations for a moment. And it is only right that severe punishments should be awarded to any persons, whether male or female, who shall be convicted of this offence, as a warning to others.

I am, Sirs, yours truly,

Jan. 4th, 1896. RECTUS.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Christmas at the Hospitals.

THE entertainments at the various hospitals were this year quite in keeping with the traditions of the season. Most of the hospitals were tastefully decorated, and appropriate mottoes and devices placed in the wards among the evergreens. At the General Hospital the presents from the Christmas tree were distributed by Mrs. Joseph Chamberlain. A programme of music was gone through, which gave much pleasure and elicited hearty applause. The Queen's Hospital gifts were disbursed by Father Christmas and received with great glee by the children. Mr. Registrar Glaisyer presided over the meeting, which was well attended and enthusiastic.

Christmas Holiday Lectures.

The Christmas holiday lectures promoted by the Midland Institute were given this year by Mr. Jordan Lloyd, who selected as his subject, "Invisible Life: how we study it, and what we know of it." It must be confessed that the manner in which the subject was treated made it complicated for a juvenile audience. However germs, bacilli, or microbes are described and their forms projected by the aid of diagrams and lantern, the subject must necessarily be complicated. Young minds at a festive season are hardly likely to derive much enjoyment from the contemplation of typhoid fever germs or erysipelas bacilli, while the magnified associations of diphtheria scarcely tend to bring comfort or contentment at a period devoted to holiday amusements.

Hospital Sunday Fund.

At a meeting of the committee for the periodical collections for local charities, presided over by the mayor, the report was read, and a cheque for £4163 16*s.* 1*d.* was handed over to the General Hospital as the proceeds of the collections at the various places of worship for the year 1895. The report stated that there was a decrease in the amount as compared with previous years, although strenuous efforts had been made this time to exceed previous occasions. Certain reasons were set forth as to the causes of the diminution. The Hospital Saturday movement was considered to be a great reason. The number of new claims for subscriptions, the formation of hospitals in the surrounding districts, and deaths and removals all operated in the decrease. A sketch of the movement was given by the honorary secretaries, various speakers expressed opinions, and finally the cheque was received with grateful thanks by the hospital authorities.

A Costly Mistake.

At the recent assizes held in this town the result of an action by the widow of a Mr. Harrop showed the price of a fatal error, which, terminating in a sad loss of life, was but justly met by a substantial award. The deceased was in the habit of taking phenacetine as a remedy for headache. In June last he called at the shop of a retail druggist and asked for a small quantity to take; he was supplied with a white powder, the taste of which, he observed, was bitter. Shortly afterwards he was seized with rigors and vertigo and died on his way to the hospital within an hour of taking the dose. A lady, also, who had taken a similar powder from the same druggist's a few days before had died from convulsions within an hour of its administration. The powder at the post-mortem examination of Mr. Harrop was found to be composed largely of strychnine. The druggist stated at the inquest that the bottle labelled "Phenacetine" had been supplied to his order by the wholesale druggists. He had ordered at the same time a small quantity of strychnine, which came in a separate bottle with label, but the contents of which were proved to be pure phenacetine. By some extraordinary blunder the contents of the first bottle had come to be composed of one-third strychnine and two-thirds phenacetine. The wholesale druggists admitted the responsibility, and, a consultation being held, a settlement was effected upon the following terms. The record was withdrawn, the defendants agreed to pay £2800 damages and plaintiff's taxed costs, and the retail druggist was to pay his own costs and undertake not to bring any action against the wholesale druggists in respect of the plaintiff's death or its consequences. The amount is undoubtedly heavy, though no monetary compensation can atone to the widow for the loss of her husband. The manner in which the claim was met was honourable and just, worthy of the reputation, hitherto acknowledged, of the wholesale firm. It stands out as a sad warning and points to the absolute necessity of extreme care and precaution in dealing with deadly drugs.

Jan. 6th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Edinburgh Royal Infirmary.

THE annual general meeting of the contributors to the Royal Infirmary was held on Jan. 6th, the Lord Provost presiding. The annual report for 1895 showed that during the year 10,032 patients had been treated in the wards; of these, 686 had died. The total number treated was in excess of the preceding year. The average daily number of patients

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in hospital had been 719. In addition to in-patients 25,768 had been treated in the out-patient departments. The ordinary receipts amounted to £31,086. The managers note with satisfaction an increase in contributions from various sources, including church collections and sums received from public works, the amount from the latter being in excess of any previous year. The ordinary expenditure had been £39,395, being a decrease on last year of £2679. The total expense of each occupied bed was £55 8*s*. 2*d*., or £3 2*s*. 2½*d*. below last year's rate, this reduction including 17*s*. 5*d*. for maintenance and £1 15*s*. 8*d*. for medical expenditure. The extraordinary income for the year, including legacies and donations of £100 and upwards, was £15,333. The extraordinary expenditure was £2897. It was further stated that the old building debt, which amounted to £2095, had been paid off during the year. There were 112 nurses on the staff. Since the last report two large legacies had been left free of restrictions; one of these was from the Earl of Moray for £50,000, and the other from Mr. Petter Waddell, of Leith, for £25,000. It had been resolved to devote part of these sums to wipe off the debt on the infirmary. The remainder, amounting probably to £30,000, it was proposed to apply towards the extension of the institution, not on the large scale at one time intended, but on a scheme which was estimated to cost about £50,000 or £60,000. The Lord Provost, in proposing that the report be sent to the committee for consideration, pointed out the great increase in the number of in-patients and out-patients since the year 1880 and the demand for more accommodation. He also intimated the re-election of a number of managers and the election of Miss Louisa Stevenson as a new manager.

Edinburgh University Annual Report.

The annual report of the University of Edinburgh shows the total number of matriculated students to have been 2836, including 167 women. Of these, 1475 were in the Faculty of Medicine, and the number of first-year students was larger than in the preceding years. Of the medical students 635 belonged to Scotland, 464 to England and Wales, 84 to Ireland, 72 to India, 193 to British colonies, and 27 to foreign countries. The number of women students of medicine attending extra-academical lecturers with a view to graduation in the university was 39. During the year 221 candidates had received the degrees of M.B., C.M., and 71 the degree of M.D.

The Christmas Vacation, Edinburgh.

The Christmas and New Year vacation has terminated, and the medical classes were reopened on Jan. 7th. Many of the lecturers and members of the infirmary staff have been able to go out of town for a few days to get freshened up for the heavy half of the winter session which still lies before them. Medically, Edinburgh has been uneventful, but here as elsewhere the keenest interest has been taken in Dr. Jameson, his doings and his possible fate. It is not too much to say that the profession liked him and believed in him, and deplore his downfall.

Jan. 7th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Queen's College, Belfast, and the Royal University.

A MEMORIAL, signed by all the professors and lecturers of the medical faculty of Queen's College, Belfast, has just been presented to the Standing Committee of the Senate of the Royal University, strongly protesting against the clinical examinations in the subjects of medicine and surgery, which were introduced for the first time into the Third Examination in Medicine at the autumn examination of the year 1895. All the universities and licensing boards of Great Britain and Ireland have recently modified their examinations owing to the extension of the medical curriculum by the addition of the fifth year, and it is noteworthy that none of these bodies, with the exception of the Royal University, has proposed to substitute a clinical examination earlier than at the end of the fifth year—i.e., at the Final Examination. At the Third Royal University Examination in Medicine students are examined in anatomy, physiology, and materia medica. This is not the time to introduce such a new subject as a clinical examination. To do so will either lower the standard of examination in anatomy and physiology, or it will increase the already high proportion of rejections. The memorialists think that these clinical examinations, while undoubtedly interfering with the acquisition on the part of a candidate of a practical knowledge of the scientific bases of medicine and surgery, will not conduce to improvement in clinical knowledge. If the limits embraced by the preliminary or elementary clinical examinations are strictly defined, it will inevitably lead to cramming of the specific subjects of the syllabus rather than genuine practical study of the cases seen in hospital. If, on the other hand, the scope of the examination is undefined the student will be liable to be examined on a subject of great extent and complexity, with, of necessity, a limited practical experience and a very defective theoretical knowledge of disease. Finally, it is believed that to introduce a clinical in the midst of the student's earlier examinations appears to the memorialists to be a retrograde step and contrary to the spirit of recent medical legislation. I understand that this question of the clinical examination at the Third Examination in Medicine was considered by the medical sub-committee of the Royal University on Jan. 4th, and that they have unanimously decided to recommend the Senate to abandon it.

Surgeon-Lieutenant-Colonel S. H. Browne, M.D., C.I.E.

Among the recipients of New Year's honours conferred by the Queen is Dr. S. H. Browne, President of the Medical College, Lahore. Dr. Browne was a distinguished student of the Belfast Medical School and graduated in the Queen's University in 1870. He subsequently became a surgeon in the Royal Navy, and after serving there for some years exchanged into the Indian Army, in which he has risen to a very high position.

The Water-supply of the Londonderry Corporation.

The Irish Society has been asked by the Derry Corporation for a grant in aid of the corporation's project of tapping the Killea Burn, enclosing a cantonment area in the vicinity, and leading the water in pipes to the city reservoirs, which are on a lower level; but the society replied that, in the face of a report on the scheme by Mr. Hassard, C.E., they could not feel justified in giving financial aid. Mr. Hassard condemned the scheme, but recommended another, known as the Cabry Water Scheme, which the corporation twenty-five years ago considered and abandoned. It is now suggested that another reservoir should be built in order to prevent scarcity in the summer months.

Enniskillen Union Workhouse.

Mr. Gunning, medical officer of the Enniskillen union workhouse, has been obliged through ill-health to resign his appointment, and several of the guardians at their last meeting spoke in very warm terms of the manner in which he had discharged his duties.

The Battle of the Clubs at Cork.

When the original rules were made the wage limit was fixed at £200 a year. No doubt that was a high figure, but at the time it was felt that too great opposition amongst the clubs might be excited if all at once a proper wage limit were insisted on. Now that the contest has gone on for a year the great majority of the profession are disposed to exclude from the clubs all but really deserving members, and, as an indication of what is likely to occur, I may mention that if the proposed medical club had been formed the committee would have named £100 a year as the limit. That is a step in the right direction, and one which I am sure will commend itself to members of the profession in other districts who, owing to a want of knowledge of local facts, were inclined to think the Cork men were unduly lenient. At the last annual dinner of the Medical Society the Mayor was one of the guests, and, referring to the conference of delegates from the medical men and clubs, which had been held at his request, he stated that the medical men of Cork, in refusing to meet the imported man in consultation, had adopted a course which had his entire approval. We hear nothing now of the druggist's shop which the more ardent spirits of the clubs defiantly announced some time ago would be established for the purpose of absorbing all the trade of the existing druggists. Cork club members, especially the rich ones, always exhibited considerable prudence in the expenditure of money.

Jan. 8th.

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ROME.

(FROM OUR OWN CORRESPONDENT.)

State Hygiene in Italy.

IF a test were wanted of the degree to which civilisation has advanced in any country it would be supplied by its sanitary legislation. Since her "risorgimento" Italy has striven hard to respond satisfactorily to this test, and, for the short period of her independence and unity, she has scored some conspicuous successes. These she owes in great measure to the able head of her Public Health Department, Dr. Luigi Pagliani, Professor of Hygiene in the University of Turin. An apt pupil of the late Professor James Moleschott, he early saw the necessity of organising a school of practical instruction in the laws of health as bearing on communities, and in the "Scuola di Perfezionamento nell' Igiene Pubblica," whose eighth year of life opened on the 2nd inst., he has witnessed the attainment of one of his ideals. Physicians, veterinary surgeons, chemists, and engineers all avail themselves of the teaching provided by a well-chosen staff of lecturers and demonstrators, the number admitted to this year's course amounting to eighty, of whom the majority are medical practitioners and veterinary surgeons, with ten chemists and two engineers. The service thus rendered by Professor Pagliani, who directs the school, is but one out of the many in the hygienic sphere, and should have sufficed, one would have thought, to protect him from party or regional jealousies. Such, it seems, is not the case. At least, in some organs whose *raison d'être* appears to be hostility to Signor Crispi, he is taxed with a too great partiality to the medical school of which he is a member. For instance, the "Consiglio Superiore di Sanita," over which he presides, has shortly to be reconstituted, and he is reminded that among the five medical men proposed by him for election the Lombardo-Subalpine element so preponderates that the schools of Southern Italy (Naples, for instance, and Palermo) are not represented at all. Now this is a question into which, as a correspondent of THE LANCET, I have no wish to enter. Certainly the Neapolitan school has alumni well worthy of State recognition, and, if Professor Pagliani, for the time at least, passed it over, it can surely be for no other reason than the sufficient one—"detur digniori." He is not likely on this occasion, any more than on similar ones, to forget the duty he owes to country and profession alike, and to make regional or party considerations dictate his choice of coadjutors in a public office of the highest importance. Signor Crispi, the creator of the "Direzione di Sanità," is himself a Southern Italian, *pur sang*, and nothing would gratify him more than to see his "concives" of the Two Sicilles preponderating in posts under Government. But he is a statesman as well as a patriot and wisely leaves Professor Pagliani a free hand in the choice of his *personnel*, content with efficient public service, from whatever part of the country it be drawn.

Mania Pellagrosa.

The mental neuroses incidental to pellagra often assume a homicidal character, of which a tragic case has just happened in the Venetian province. A peasant labouring under pellagra was suddenly seized with a maniacal fit, in the course of which he took up a hatchet and struck his wife on the head, causing instantaneous death. His three sons, returning from the fields, found their mother a corpse and their father patrolling the neighbourhood in high mental exaltation. Arrested and imprisoned at Piova, he could give no account of his motive for the murder. This is one of a series of similar lethal acts lately committed by *pellagrosi*, acts which call loudly for stricter surveillance on the part of the local authorities, municipal and sanitary, pending such more radical measures of prophylaxis as the impounding of diseased maize and the improvement of the aliments served out to the agricultural population.

Jan. 4th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Antitoxin Treatment of Diphtheria.

A HIGHLY interesting report on the antitoxin treatment of diphtheria has just been published in the *Wiener Klinische Wochenschrift* by Dr. Knoepfelmacher. The death-rate from diphtheria in the Carolina Hospital for Children from 1889 till October, 1894, was from 40 to 51 per cent., and was higher than the average mortality from diphtheria in Vienna, which in 1892, 1893, and 1894 amounted to 36·4, 34 2, and 35·5 per cent. respectively. At all the hospitals the mortality is high in consequence of the numerous cases of septic and laryngeal diphtheria which are admitted, while private patients are more resistent and, as a rule, live under better hygienic conditions than the hospital patients. The high death-rate from diphtheria in hospitals may be seen from the report for 1892. During this year 547 cases were admitted to the General Hospital, of which 279 were fatal, and 1525 cases to the five hospitals for children, with 706 deaths, making a total of 2072 cases with 985 deaths, being equal to a mortality of 47 5 per cent., whereas in the same years only 595 deaths occurred among 2260 cases (or 26 3 per cent.) in private patients. From October, 1894, when the antitoxin treatment was introduced in Austria, till July, 1895, there were reported 3035 cases of diphtheria with 732 deaths (or 24 per cent.). Among the 1213 cases which during this time were treated in hospitals there were 312 deaths (25·7 per cent.), whereas 420 deaths were registered among 1822 private patients, being equal to a mortality of 23 per cent. These figures show a decrease of the hospital mortality to less than half its previous rate, due to the serum treatment which is systematically employed in hospitals. During the same period there were admitted 100 cases of diphtheria to the Carolina Hospital, and there have been injected in 16 cases with 4 deaths 600 units, in 72 cases with 12 deaths 1000 units, in 3 cases without any death 1600 units, in 4 cases with 2 deaths 2200 units, and in 5 cases with 3 deaths 2600 units. Although no local treatment was employed the death-rate decreased 50 per cent. Following Escherich, Dr. Knoepfelmacher distinguished three groups of diphtheria. Among the 57 cases of the first group, comprising the localised form, no death occurred during the antitoxin treatment. In the second group (progressive diphtheria) a decrease of the signs of obstruction was observed in 12 of 38 cases of croup. In the third group (septic diphtheria) the serum treatment obtained no success, though large doses were used. As regards age, there were 25 children under two years, of whom 10 died (1 from septic diphtheria and 9 after tracheotomy); 16 children were at the age of three years, 12 of four years, 10 of five years, 7 of six years, 8 of seven years, 8 of eight years, 3 of nine years, 2 of ten years, 3 of eleven years, 3 of twelve years, 2 of thirteen years, and 1 of fourteen years. The false membranes were easily loosened and disappeared in 7 cases in three days, in 20 cases in four days, in 10 cases in five days, in 9 cases in six days, and in 13 cases later than six days after admission to the hospital. Albuminuria was observed in 27 cases and hæmorrhagic nephritis in one case. In 2 cases symptoms of dilatation of the heart occurred, with irregular and accelerated pulse; both recovered. An eruption resembling scarlet fever or erythema multiforme was observed in 13 cases. Death occurred in 5 cases within twenty-four hours, in 4 within two days, in 1 case within three days, in 5 within four days, in 1 within five days, in 2 within six days, in 1 within seven days, in 1 within eight days, and in 1 within twelve days. Five patients died from croup without complication, 1 from croup with pneumonia, 1 from croup with pneumothorax, 3 from croup with lobular pneumonia, 2 from pneumonia, 2 from phthisis with pneumonia, 1 from phthisis with peritonitis, 3 from septicæmia, 1 from bleeding from the eroded subclavian vein in consequence of enlargement of the wound after tracheotomy, and 1 from scarlet fever. Dr. Knoepfelmacher considered that the loosening of the false membranes in the larynx and trachea and the decrease of the mortality prove that antitoxin possesses a specific curative power.

Jan. 7th.

AN UNREGISTERED "DENTIST" FINED.—At West Ham Police-court, on Wednesday, the 8th inst., Ernest H. Richards, of Zingari-terrace, Gipsy-lane, Forest-gate, was fined £5, with £1 10*s.* costs, for taking and using the title of "dentist" without being registered as such under the Dentists Act. The defendant pleaded that he was a manufacturing dentist, and that when persons called upon him to have operations performed he took them to a registered dentist, but the plea was not allowed by the magistrate, who imposed the above fine, remarking that the public must be protected.

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Obituary.

WILLIAM PENNY BROOKES, F.R.C.S. ENG., J.P.

MR. BROOKES, of Much Wenlock, Shropshire, whose death at a very advanced age occurred on Dec. 10th, 1895, was in many respects a remarkable man, and one whose influence extended widely. He was the son of a medical practitioner in Much Wenlock, and was born in August, 1809. He studied medicine at Guy's and St. Thomas's Hospitals, and in Paris under Dupuytren, Chopart, and Laennec. During his stay in Paris a revolution broke out; English residents were in especial danger, and a fellow-student was shot whilst sitting at his window. In 1830 his father died; in the following years he took the diplomas of the Royal College of Surgeons of England and the Society of Apothecaries of London, succeeded to his father's practice, and passed his life in Much Wenlock, only retiring from professional work in 1891. Mr. Brookes was an active philanthropist and delighted in using his talents for the public benefit. When he commenced practice Much Wenlock was but a small place containing less than five hundred houses, and, as might have been expected, sanitation received but scant attention. Through his instrumentality, however, gas-lighting was introduced, an open sewer in the main street was covered over; a library and reading-room were provided, and in course of time a museum was added, for exhibition in which he obtained ancient deeds relating to the monastery, a large number of ancient coins, British and foreign, and a collection of local antiquities. He was a diligent reader, an accomplished Latin and Hebrew scholar, and so convinced of the advantages of athletics as a branch of education that he took a leading part in the movement which resulted in the institution of the National Olympian Association in the year 1850. This was the germ of the International Olympian Society of Paris, the first contests of which are to be held in Athens during the present year and the second in Paris in 1900. Mr. Brookes became a Fellow of the Royal College of Surgeons of England in 1870. Forty or fifty years ago he was a strenuous advocate of reform in that corporation, and numerous contributions from him on the subject are to be found in the columns of THE LANCET. His funeral took place on Dec. 13th amid general demonstrations of public mourning.

ARTHUR JACKSON, M.R.C.S. ENG.

BY the death of Mr. Arthur Jackson, which was announced in THE LANCET of Jan. 4th, Sheffield has lost a son of whom the town has every reason to be proud, inasmuch as he united the qualities of a skilful surgeon, an energetic public man, and an eminent authority on local history and antiquities. This conjunction of medical knowledge with various branches of literary culture has probably been becoming less common during the last forty years, a circumstance which renders Mr. Jackson's early death the more to be deplored. He was born fifty-one years ago in Sheffield, where his father was a respected practitioner, well known for his literary tastes. Following the example of his elder brother Henry, who was named after their father, he determined to enter the medical profession, and, accordingly, studied at the Sheffield School and at St. Bartholomew's Hospital in London, where he filled the post of house surgeon. In 1866 he became a Member of the Royal College of Surgeons of England, and on his father's death, which occurred in that year, he commenced practice in his native town and speedily obtained an appointment as surgeon to the hospital in West-street. This he retained until 1877, when he became consulting surgeon in consequence of being elected surgeon at the Sheffield Infirmary in succession to the late Mr. Samuel Parker, and was senior surgeon of the infirmary at the time of his death. He was also a member of the city council for several years, his first election being in 1885 and his last in 1894. Mr. Jackson was lecturer on surgery in the Sheffield School of Medicine and a contributor to periodical medical literature. It is to be regretted that, although he lectured sometimes on his researches into the history and antiquities of the town, yet he never found opportunity to publish anything on those subjects. He was well qualified to do so, for he accumulated a considerable library of authorities on these topics and possessed an altogether exceptional knowledge of the Sheffield of the past. Mr. Jackson has left a widow but no family. His funeral took place on Jan. 1st in presence of a very large assemblage, including representatives of the municipality, the Royal Hospital, the Infirmary, and several other institutions.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The death of the following eminent foreign medical man is announced:—Dr. J. E. Michael, formerly Professor of Anatomy and Clinical Surgery in the Maryland University, Baltimore.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the under-mentioned subjects:—

PRIMARY EXAMINATION, PART I.:—

Chemistry, Materia Medica, and Pharmacy.—J. Jones, Edinburgh, and W. R. Wilson, Dublin.
Chemistry.—J. H., Beasley, Birmingham; K. M. Betts, Edinburgh School for Women; and H. M. Serjeant, Royal Free Hospital.
Materia Medica and Pharmacy.—A. Avent, St. George's Hospital, and E. Yoxall, Birmingham.

PRIMARY EXAMINATION, PART II.:—

Anatomy and Physiology.—G. H. Bedford, Guy's Hospital; C. G. Catterall, Leeds; H. N. Collier, Guy's Hospital; J. T. Crowe, St. Mary's Hospital; D. R. Dhabhar, Bombay; L. T. Lavan, St. Bartholomew's Hospital; W. M. McLoughlin, University College; L. Martindale, Royal Free Hospital; H. Munro, Guy's Hospital; E. B. Stevenson, St. Bartholomew's Hospital; and L. L. G. Thorpe, University College.
Anatomy.—L. Bradstock, Birmingham; M. Caldwell, Belfast; G. W. H. Edgelow, London Hospital; T. R. Griffiths, University College; A. R. Henchley, Middlesex Hospital; B. Lewitt, St. Mary's Hospital; H. J. Pickering, St. Bartholomew's Hospital; and A. J. Rencontre, Madras.
Physiology.—P. Cator, St. Bartholomew's Hospital; K. Datta, Glasgow; W. Eales, Manchester and Sheffield; P. T. Goodman, St. Thomas's Hospital.
Biology.—E. Courtauld, K. E. Gregg, M. E. Rocke, A. M. Smith, and M. Williams, all of the Royal Free Hospital.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin:* Dr. Ernst Stadelmann of the hospital at Urban, and formerly of Dorpat, has been recognised as *privat-docent*.—*Florence:* Dr. E. Bagnis has been recognised as *privat-docent* in Ophthalmology.—*Heidelberg:* Professor Körner of Rostock, where he teaches otology and laryngology, has been offered a similar chair.—*Philadelphia (Policlinic):* Drs. H. F. Hansell, J. K. Young, and D. Stewart have been appointed to professorships of Ophthalmology, Orthopædic Surgery, and Diseases of the Digestive Organs respectively.

DIPHTHERIA IN LONDON.—There are not wanting indications of late weeks that diphtheria in London is decreasing. The decline commenced so far as mere amount of the disease was concerned, several weeks ago, but as much cannot be said for the amount of fatality of the malady, which remains high, notwithstanding the decrease in the number of attacks. The continued high death-roll from week to week is a sign of malignancy of type, apparently out of keeping with the seeming waning of a long-sustained epidemicity of diphtheria in the metropolis. During last week the deaths numbered 66—i.e., 30 in excess of the average of the initial week of the ten years 1886–95. The sanitary area of Fulham had as many as 9 deaths credited to it, and 6 each were credited to Islington and Bethnal Green. In Mile End Old Town there were 5 deaths, and 4 respectively in Hackney, Battersea, Camberwell, and Plumstead sanitary areas. Divided among the several registration areas of London we find the 66 deaths arranged as follows:—Western districts, 11; northern districts, 20; central districts, 2; eastern districts, 11; and southern districts, 22 deaths. In the outer ring there were 14 deaths from diphtheria during last week, 3 being in West Ham and 5 in Edmonton districts. A notable amount of diphtheria seems lately to have occurred in the northern suburbs comprised in the Edmonton union. Of the 66 deaths in the county of London, 3 occurred in infants aged under one year, 44 in the next four years of life, 17 in the succeeding fifteen years, and only 2 in persons aged over twenty years. These 66 deaths compare with 63, 62, and 71 in the three preceding weeks. The admissions to hospital in the week were 98, as against 91, 104, and 93; and the number of patients remaining under treatment on Saturday last was 683, as against 705 on the Saturday immediately before.

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SOCIETY FOR THE STUDY OF INEBRIETY.—A quarterly general meeting of this society was held in the rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square, W., yesterday (Thursday) afternoon. The chair was taken by the President, Dr. Norman Kerr, and Mr. W. H. Kesteven read a paper entitled "The Proper Method of Dealing with Habitual Drunkards."

MANCHESTER MEDICAL SOCIETY.—The following is the list of office-bearers for the year 1896:—President: Dr. Ashby. Vice-Presidents: Dr. Brooke, Dr. Bury, Dr. Edge, and Dr. Moritz. Treasurer: Dr. Glascott. Secretary: Mr. Coates. Committee: Mr. Bishop, Dr. Faulkner, Dr. Griffith, Dr. T. A. Helme, Mr. Milner, Dr. Railton, Dr. Reynolds, Mr. E. Roberts, Mr. Thorburn, Dr. Torrop, Dr. Walter, and Dr. Woodcock. Library Committee: Dr. Kelynack, Dr. Wild, and Dr. R. T. Williamson. Auditors: Dr. J. G. Clegg and Mr. J. E. Platt.

PRESENTATION.—Dr. Edward Liddon, J.P., of Taunton, was the recipient of a handsome presentation from the followers of the Taunton Vale Harriers, the mastership of which he has held for twenty years. It consisted of a large loving-cup of Georgian pattern, with cover. Engraved on it were the following words: "Presented to Edward Liddon, Esq., M.D., by the Taunton Vale Harriers' Hunt, Dec. 30th, 1895." The cup was mounted on an ebony plinth, attached to which was a silver plate bearing the names of about one hundred subscribers.

ANNUAL REPORT OF THE BRISTOL DISPENSARY FOR 1895.—The committee of the Bristol Dispensary, in their annual report for 1895, which has just been issued, state that the receipts from subscriptions are the same as for the year previously, but the recommendation notes bearing a charge have again slightly decreased. In order to afford the patients at Bedminster, the number of whom has increased, the advantage of a dispensary in their neighbourhood, the committee has decided to erect a building in that part of the city. The cost will be about £2400. The amount of the annual subscriptions is less by £650 than the expenditure. The committee would regret selling investments, as it would reduce materially the income of the institution.

THE RESIDENT STAFF ENTERTAINMENT AT ST. BARTHOLOMEW'S HOSPITAL.—The annual entertainment to the resident staff of this hospital was given on Jan. 2nd and 3rd, and consisted of performances by the Dramatic Society and the Orchestral Society, with some songs. The pieces selected were *Cool as a Cucumber* and *Woodcock's Little Game*. All the performers were above the level of the ordinary amateur actor, but special praise must be given to Mr. J. Hobday and Mr. J. Boyan, the latter of whom is a born comedian. We must congratulate Mr. R. W. Metcalfe, the conductor of the orchestra, on his wood wind, for this is generally the weak part of a non-professional band, but they came out well in the Rosamunde overture, which so well displays Schubert's fondness for the wood wind and his skill in treating it. There was a large audience of old St. Bartholomew's men as well as present students.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.—At a meeting of medical practitioners connected with British health resorts, held at Limmer's Hotel, Conduit-street, W., on Nov. 9th, 1895, the above society was formed to carry out the following objects:—To provide means for the association of medical practitioners connected with British health resorts and to promote good fellowship amongst themselves and with members of other branches of the medical profession; to encourage the theoretical and practical investigation and study of balneo-therapeutics and medical climatology; and to advocate and sustain within the profession the interests and claims of British balneology and climatology. The honorary president of the society is Sir Edward Sieveking, the president is Dr. Henry Lewis of Folkestone, and the secretaries are Mr. A. A. Macfarlane, of 1, Montpellier-terrace, Brighton, and Dr. Septimus Sunderland, of 35, Bruton-street, London, W., to whom applications concerning membership should be made. All qualified practitioners who take an interest in the subjects of balneology and climatology are also eligible for membership. It is proposed to hold most of the meetings for papers, discussions, &c., in London. The inaugural meeting will be held on Wednesday, Jan. 22nd, at 8 P.M., at Limmer's Hotel, Conduit-street, when addresses will be given by Dr. W. Miller Ord and others.

FORMATION OF A MEDICAL SOCIETY AT BEDFORD.—A meeting of the medical men at Bedford and district was held at the Infirmary on Thursday, Jan. 2nd, Mr. Hughes Hemming of Kimbolton occupying the chair. It was decided to form a medical society in Bedford "for the promotion of professional intercourse, for the reading of papers, for the exhibition of cases, patients, pathological specimens, &c., and for the discussion of all questions affecting the welfare of the profession." Meetings will be held at the Infirmary quarterly at 3·30 P.M. The following officers were elected for the ensuing year—President, Dr. G. P. Goldsmith; treasurer, Mr. A. Chillingworth; secretary, Mr. W. Gifford Nash.

BRITISH ORTHOPÆDIC SOCIETY.—The first annual meeting of this society was held at the Royal Orthopædic Hospital, Oxford-street, on Wednesday, Dec. 18th, 1895. Present: Mr. B. E. Brodhurst (in the chair), Messrs. Ewens, Moxey, Jackson Clarke, Openshaw, D'Arcy Power, Reeves, Keetley, Little, Dr. Sunderland, and Mr. Luke Freer and Mr. Tubby (hon. secs.), together with Messrs. Baker, Sayers, and Tombs, and Dr. Moulouguit (Amiens) and Dr. Calôt (Berck-sur-Mer) as visitors. The hon. treasurer's and hon. secretaries' reports were read and adopted; in the latter, after speaking of the inauguration of the society and the three successful meetings held, especially that at Liverpool, where the members had been most hospitably entertained by Mr. Robert Jones and the Liverpool members, the hon. secretaries expressed a hope that the society would be enabled to publish its transactions annually in book form. Messrs. Keetley, Power, Reeves, and the hon. secretaries were elected as a sub-committee to deal with the latter subject. Mr. Keetley was re-elected treasurer, and Messrs. Openshaw, Brodhurst, and Rawdon were elected to fill vacancies on the council. At the invitation of Mr. Luke Freer the next ordinary meeting was decided to be held in Birmingham in May next. An ordinary meeting was held immediately after the annual meeting. Mr. Reeves and Mr. Keetley showed cases of Congenital Hip Dislocation, the former demonstrating his instrument for extension. In the discussion that followed Mr. Brodhurst and Dr. Calôt took part, mainly dealing with operative interference in such cases. Messrs. Baker and Walsham had on view some interesting cases of Congenital Absence of the Fibula; Mr. Brodhurst showed a cast of a severe case of Talipes Equino-varus; and Mr. Ewens one of a case of Severe Talipes-calcaneo-valgus in an Infant. Mr. Baker demonstrated the action of his wrench for Talipes Equinus and Varus. The meeting terminated with a vote of thanks to the committee of the Royal Orthopædic Hospital for the use of their board-room for the meeting.

THE DIFFUSION OF SMALL-POX.—There was a death from small-pox registered in London during the week ending Dec. 28th, 1895, occurring in a vaccinated adult; he was removed from the Greenwich sanitary district to the hospital ship *Castalia*. A fortnight previously a death had also been registered from the disease in the metropolis, the deceased being an adult coming from Newington, and concerning whose vaccination no statement was forthcoming. The deaths from small-pox in London have not exceeded 11 in any week since the middle of October. Greenwich now seems to be the only centre of infection in the metropolis, though there the malady has been causing some uneasiness for the past month or so, as many as 5 cases having, for instance, arisen in one street alone. Not far distant small-pox has been somewhat prevalent at West Ham, where about 40 cases were notified in November, with many additional cases last month. The medical officer of health, in reporting to his town council on the matter, is inclined to attribute the infection to the importation of disease by means of Kentish hop-pickers. In December a discussion arose at a meeting of the council as to the condition of the streets in which the cases chiefly occurred; and the remark was hazarded that there was little use in having recourse to vaccination whilst the state of the localities from which the disease came was so disgustingly insanitary as was the case. The streets in question were described as being scarcely fit for pigs to live in. Thus the true facts of the prophylactic qualities of vaccination were concealed behind what seems, nevertheless, to be a disgraceful state of things in the borough. In the west the scare created in Gloucester by the notification of cases of small-pox in November has not by any means subsided. Towards the close

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of last month it was stated that more than 20 cases with 2 deaths had arisen, in each instance the patients being at once isolated and their relatives placed in quarantine. It is well known that Gloucester is a hotbed of anti-vaccinationism, the laws as to vaccination having been for a long time in abeyance. At Hereford some discussion has followed the development of a case of small-pox in a tramp who had been sent from Ross to the Eye and Ear Hospital, and who had thereupon been transferred to the workhouse isolation ward. It was felt to be hard that the patient having been sent from Ross workhouse to Gloucester, the Ross board of guardians could not be held responsible for his maintenance. At Exeter 2 cases have been recorded; one arose in the person of a railway employé from London, and in the other the malady was contracted whilst nursing. Measures were at once adopted for preventing the spread of the disease. Two cases have been recorded at the Wonford Inn, near Exeter, in the St. Thomas's rural district. It was desired to secure the removal of the patients to the sanatorium, but the necessary certificates could not be obtained from the medical attendant, who could not certify against the lodging and accommodation of the sufferers. A case of small-pox was reported to the Merthyr Tydfil guardians just before Christmas; the patient had been an inmate of the workhouse infirmary and was at once removed to the fever hospital. Manchester and Salford, and, indeed, most of the Lancashire towns, continue to be free from the disease. At Royton, however, further cases have occurred and have been isolated in the Cinder-hill Hospital. At Dublin small-pox seems to be quiescent, the weekly admissions to hospital having recently been few in number; during the week ending Dec. 21st there were 2 admissions, 1 discharge, and 1 death, 13 cases remaining under treatment, a number identical with that of each of the preceding two weeks.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BARRY, J., M.D. Irel., L.R.C.S. Edin., has been appointed Medical Officer for the Ballyduff Dispensary, vice Stephenson.

BERRY, WM., J.P., F.R.C.S.I., D.P.H., has been appointed Medical Officer of Health and Superintendent of the Sanatorium, County Borough of Wigan, vice W. C. Barnish, deceased.

BEVAN, RICHARD, L.R.C.P. Lond., M.R.C.S., D.P.H., has been re-appointed Medical Officer of Health by the Lydd Town Council.

BROWNING, B., L.R.C.P. Lond., M.R.C.S., D.P.H. Edin., has been appointed Medical Officer to the Post Office Service at Weymouth, vice Drury, resigned.

COLE, F. W., M.B., Ch.B. Dubl., has been appointed Medical Officer of Health by the Bolsover District Council.

DONNAN, W. D., M.B., B.Ch. R.U.I., has been appointed House Physician to the Belfast Royal Hospital, vice Magowan.

DUNDAS, M. G., M.R.C.S., has been appointed Medical Officer by the Mitford and Launditch Rural District Council.

EVANS, R. W. J., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health by the Wrexham Town Council.

GRAVELY, H., M.R.C.S., has been reappointed Medical Officer of Health by the Chailey Rural Council.

HARCOURT, GEO. R., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer and Dispenser at the Infirmary of the Parish of Lambeth.

HARDWICK, A., M.D. Durh., D.P.H. Eng., has been appointed Medical Officer of Health by the Newquay Urban District Council.

HODGE, ALBERT, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Resident Medical Officer to the Chorlton-upon-Medlock Dispensary, Manchester.

JONES, S. E., L.R.C.P., L.R.C.S. Edin., F.F.P.S. Glasg., has been appointed Medical Officer for the Sanitary Districts of Shocklach Church and Shocklach Ovatt.

LAMB, J. H., M.B., C.M. Edin., has been appointed House Physician to the Royal Berks Hospital, Reading.

LEES, J. FERGUSON, M.B., C.M. Glasg., has been appointed House Surgeon to the Hartlepools Hospital, vice A. V. Macgregor, M.B., C.M., resigned.

MACGREGOR, D. A., M.B., C.M. Edin., has been appointed Medical Officer of Health by the Skelmanthorpe Urban District Council.

MACKINLAY, J. E. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Fever Hospital by the Kirkleatham Urban District Council.

MAGOWAN, S. M., M.B., B.Ch. R.U.I., has been appointed Senior House Surgeon to the Belfast Royal Hospital, vice Donnan.

MENZIES, HENRY, M.B., B.C. Camb., has been appointed Obstetric Assistant to St. George's Hospital.

MORRISON, A., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Infirmary of the Parish of St. Pancras.

NUTTING, E. S., M.B., C.M. Edin., has been reappointed Medical Officer for the Third Sanitary District of the Mansfield Union.

PATCH, H. H. L., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Chudleigh Sanitary District of the Newton Abbot Union.

PATTERSON, G. H., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Dalton-in-Furness Urban District.

RUSTON-HARRISON, G. H., M.B., C.M. Edin., has been appointed House Surgeon to the Royal Berks Hospital, Reading.

SAUNDERS, BERTRAM, M.B., C.M. Aberd., has been appointed Junior House Physician to the North-Eastern Hospital for Children.

TEW, JAMES S., M.D. Durh., B.S., M.R.C.S., D.P.H. Camb., has been appointed Medical Officer of Health for the Sevenoaks Combined Urban Sanitary District and the Bromley Combined Rural Sanitary District.

TONKING, J. H., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Officer for the Camborne Sanitary District of the Redruth Union, vice Erskine.

TURNER, WILLIAM, M.B., B.S. Lond., F.R.C.S. Eng., has been appointed Sambrooke Surgical Registrar to King's College Hospital, vice L. V. Cargill.

WACHER, FRANK, M.R.C.S., has been reappointed Medical Officer of Health for the Canterbury Urban Sanitary District.

WALSH, R. P., L.R.C.P., L.R.C.S. Irel., has been appointed, *pro tem.*, Medical Officer for the Enniskillen Union Workhouse.

WILDING, W. F. W., L.R.C.P. Lond., M.R.C.S., has been appointed Surgeon for the Hindley District of the Wigan Junction Colliery.

WILSON, R., L.F.P.S., L.M. Glasg., has been appointed Medical Officer for the Newchurch Sanitary District of the Haslingdon Union.

YOUNG, THOS. B., M.D. Brux., L.R.C.P., L.R.C.S. Edin., M.R.C.S., has been appointed Medical Officer of Health for the Halesowen Urban Sanitary District, vice E. Turner.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM GENERAL DISPENSARY.—Resident Surgeon. Salary £150 per annum (with an allowance of £30 per annum for cab hire), and furnished rooms, fire, lights, and attendance.

BRADFORD INFIRMARY.—Dispensary Surgeon. Salary £100 per annum, with board and residence.

CHILDREN'S HOSPITAL, Nottingham.—House Surgeon (non-resident) for six months. Salary at the rate of £100 per annum.

COUNTY ASYLUM, Upton, near Chester.—Junior Assistant Medical Officer. Salary £120 per annum, with board (no liquors), lodging, and washing.

FISHERTON HOUSE ASYLUM.—Assistant Medical Officer, unmarried. Salary £100 per annum, with board, lodging, and washing. Applications to Dr. Finch, the Asylum, Salisbury.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—Junior House Surgeon. Board, lodging, and laundry provided in the hospital.

HOSPITAL FOR WOMEN, Soho square, London, W.—Registrar, for twelve months. Honorarium 25 guineas.

HOSPITAL OF THE EVANGELICAL PROTESTANT DEACONESSES' INSTITUTION, The Green, Tottenham.—Physician for In-patients and Physician for Out-patients.

LONDON HOSPITAL, Mile-end, E.—Two Assistant Anæsthetist for six months. Salary at the rate of £50 a year each.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—Assistant House Surgeon for six months. Board, apartments, and washing provided.

Births, Marriages, and Deaths.

BIRTHS.

ECCLES.—On Jan. 3rd, at 63, Sackville-road, Hove, the wife of G. Tolcher Eccles, M.A., M.B. Cantab., of a son.

MINTER.—On Jan. 5th, at Mansion-row, Chatham, the wife of Ernest D. Minter, Surgeon R.N., H.M.S. *Rupert*, of a son.

ROBINSON.—On Jan. 3rd, at Devon Villa, Avenue-road, Leamington Spa, the wife of William Shakespeare Robinson, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., late of Gloucester, of a son.

MARRIAGES.

FUHR—BOTTOMLEY.—On Jan. 1st, at St. James's, Norlands Holland-park, London, W., Robert Strickland Hannay Fuhr, L.R.C.P., L.R.C.S. Edin., Midhurst, Sussex, to Maud Lilian, youngest daughter of Henry H. Bottomley, of Clanbrassil, Cultra, co. Down, Under-Sheriff, co. Antrim, Ireland.

JONES—WOODMAN.—On Jan. 7th, at Christ Church, Forest Hill, by the Rev. C. A. Sturges-Jones, curate of St. Mary the Virgin, Reading, assisted by the Rev. Gustavus Jones, vicar of the parish, Wilfred Edward Jones, M.R.C.S., L.R.C.P., second son of C. Sturges-Jones, M.R.C.S., of Chichester, to Ellen Beake, third daughter of William Woodman, of Woodbank, Forest Hill.

DEATHS.

DIXON.—On Jan. 3rd, at Harrow Lands, Dorking, James Dixon, F.R.C.S., aged 82.

FINCH.—On Jan. 2nd, at Westville, St. Mary Church, Torquay, Thomas Finch, M.D. St. And., M.R.C.S.

HILTON.—On Jan. 6th, at Milestone House, Upper Deal, Thomas Denne Hilton, M.B. Cantab., aged 74.

LOMAS.—On Jan. 3rd, at Belper, Henry Lomas, L.S.A., in his 92nd year.

MAY.—On Jan. 2nd, at Bournemouth, W. Costall May, M.R.C.S., late of South Kensington, aged 68.

RUBINSTEIN.—On Jan. 2nd, D. Rubinstein, L.R.C.P. Lond.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 9th, 1896.

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp Shade	Min. Temp	Rainfall	Remarks at 8.30 A.M.
Jan.	3	30·21	S.W.	44	43	46	46	43	...	Overcast
,,	4	30 26	S.E.	43	42	46	45	40	...	Overcast
,,	5	30 53	N.E.	41	39	44	42	40	...	Cloudy
,,	6	30·64	S.E.	39	37	41	41	38	...	Overcast
,,	7	30 66	N.E.	36	35	43	43	35	...	Overcast
,,	8	30·68	N.E.	43	42	49	47	34	...	Foggy
,,	9	30 86	N.E.	36	33	54	40	39	...	Fine

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*.

To be obtained on application to the Manager, accompanied by remittance.

AN UNQUALIFIED PRACTITIONER.

WE have received the following account of an obstetric operation undertaken by a layman, a subaltern in Her Majesty's Army, under circumstances which not only make his interference most proper, but testify to his great coolness and strong sense of practical humanity.

The other night S—— woke me to say that a Gurka woman was dying in childbirth, and as I was a married man would I go and see if I could do anything. I learnt from the hospital assistant (a native Baboo) that an arm of the child had appeared three days before. He had put it back, and also a knee which next appeared. The arm had appeared again, and the child had been dead nearly *two* days. The husband had no faith in the hospital assistant and as a last resource appealed to the Sahib in his hour of need. The hospital assistant wanted to open the uterus, but both the woman and her husband absolutely refused to permit the use of a knife. I suggested trying to bring away the body piecemeal; but, there being no appliances beyond a small pocket-case of instruments, the hospital assistant said this was impossible. After two hours of argument, during which the husband obstinately refused to permit an operation and suggested leaving the case as it was for another two days to see if nature would assist, I persuaded him to allow chloroform to be administered with a view to making an examination, knowing sufficient to understand that every hour of delay increased the risk of blood-poisoning. The hospital assistant had no nerve and suggested leaving the woman, as she was bound to die. It is true that 'fools rush in where angels fear to tread'; but, taking the case into my own hands, I ordered him to sever the arms of the dead child at the shoulder, as they were evidently the cause of obstruction. This was done with a *pocket lancet*, and the rest of the body came away without difficulty. There were no midwifery instruments and not even a vaginal syringe; but, having made certain that nothing remained, the hospital assistant washed out the womb and applied certain astringents to stop the bleeding. In order not to frighten the woman I had stayed outside till chloroform was administered, and as she now showed signs of coming to I left the room. This was two days ago. Her temperature remains normal, and she is in a fair way to recovery. A little knowledge may be a dangerous thing, mine being derived from veterinary science, a few books I had read, a few operations I had seen in hospitals, and one case of childbirth I had seen in Persia; but I am confident that I saved that woman's life. The whole affair took place in a wretched hovel not ten feet square, and you can imagine how unpleasant it was. It is true that there is no limit to the duties a soldier may be called on to perform, and in future I shall be surprised at nothing; but I certainly never expected to have to attend professionally a midwifery case. You might show this to Dr. J——. He will probably be amused at my attempt at amateur surgery. In these out-of-the-way districts the law does not bother about unprofessional men undertaking these things, even supposing the patient dies. I may have been rash; but it was one of those occasions when one must exercise one's own judgment. The hospital assistant had no nerve; the woman was bound to die unless something was done; and I did what I thought was right to the best of my ability, happily with satisfactory results.

Dubitans.—From the information supplied to us there would appear to be no reason why the parties should not marry. The family history on the man's side might be inquired into one generation further back, but the indications for extreme precaution are not very obvious.

M.D.—The snowballing was preferable, but we do not see the evidence of inspiration.

HOW TO MAKE A PORTABLE SPIRIT-LAMP.

To the Editors of THE LANCET.

SIRS,—A small spirit-lamp is an extremely useful pocket companion for the general practitioner in many ways. One can be easily extemporised from an empty thermometer case with screw-cap by simply fitting it with a few strands of lamp cotton and then filling with spirit. A piece of indiarubber tubing at the joint makes it perfectly spirit-tight. It is useful for the following puposes:—1. Sterilising the needles of hypodermic syringes. Death has been, in several instances, attributed to the use of dirty needles, and dry heat forms the best means of rendering them aseptic. 2. The preparation of sterilised hypodermic solutions by previously boiling the water used in a tea-spoon. It is well known that distilled water, unless freshly prepared, is not sterile. Microscopic examination will reveal the presence of penicillium &c. Some instrument-makers still send out cases fitted with a small bottle for distilled water. 3. As a companion to Pavy's Urinary Test-case. Amongst the numerous designs of so-called portable test-cases this is the only one that can be carried about by the practitioner as habitually as his stethoscope and thermometer. 4. For sealing tubes containing vaccine lymph. 5. For sterilising lancets or needles used in vaccination. I find that mine holds 50 minims of spirit and gives a clear, smokeless flame for the space of ten minutes.

I am, Sirs, yours faithfully,

Liverpool, Jan. 6th, 1893. WM. G. SUTHERLAND.

A HERBALIST AND DEATH CERTIFICATES.

To the Editors of THE LANCET.

SIRS,—Would you kindly give me your opinion on the following? In this town we have a herbalist who is also on the chemists' register by reason of his having had a shop prior to the Act. This man visits (and has done so, I am told, for about thirty years), dispenses, &c., and, in short, is looked upon by many of the inhabitants as a legally qualified medical man, or, as they term it, "a right doctor." He advertises himself as Dr. So-and-so. A few years ago we had him prosecuted by the Medical Defence Union. The fines, I understand, were paid by some herbalist society. This, I am sorry to say, has not deterred him from going on as before. His certificates of death are accepted by our local registrar, who, I presume, returns them as uncertified deaths. As long, however, as they are accepted the herbalist works away in peace and quietness. What are we to do? It seems to me that prosecuting him again would have as much effect as before.

I am, Sirs, faithfully yours,

Jan. 3rd, 1896. JUSTICE.

*** The pertinacity and success of the herbalist are not surprising, seeing the encouragement with which herbalists meet. The person upon whom pressure should be brought to bear is the local registrar. If clear proof can be obtained that the herbalist's death certificates have been accepted by that official as sound, communication should be immediately made to Somerset House.—ED. L.

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MEDICAL ADVERTISEMENTS IN SOUTH AFRICA.

As a pendant to the extraordinary advertisements from an Australian paper which we reprinted in our issue of Dec. 14th, 1895, a correspondent sends us a still more remarkable production from a South African journal. The advertisement, which occupies a column, is too long to print in full, and much too good to be condensed; nevertheless we extract for our readers a few "tit-bits" from it. We can only repeat the remark we made before—*Cœlum non animum mutant qui trans mare currunt.*

Personal.—The President and Mrs. Kruger, during their recent indisposition, were attended by Dr. Speer of this town [Johannesburg].

* * * *

AMERICAN DISPENSARY.

Corner Kerk and Joubert-s'reet [Johannesburg],

DR. SPEER

IS a graduate of the Medical Department of Harvard University, Class 1874, United States of America, and is registered as such in both the Eastern and Western Hemispheres; also licensed in the Transvaal. The Doctor has devoted twenty-one years to the study of NERVOUS AND CHRONIC DISEASES, in association with the leading specialists of the old and new worlds, which enables him to treat all private troubles with excellent results. Catarrh, stomach, and liver troubles attended to in all their various forms. All skin diseases, from whatever cause, absolutely cured within a stated time. All applying to him will receive his honest opinion of their complaints. No experimenting! No mercury used. He will guarantee a positive cure in every case he undertakes, or forfeit £200. His reason for doing so is this: Where there is no organic disease and nothing but an inorganic trouble, or in other words a conglomeration of symptoms producing a certain result, there is no reason why it cannot be removed with the proper remedies. Therefore he guarantees. Furthermore, in all other businesses the master must guarantee his work—why not in medicine? The old-fashioned doctor will promise nothing, therefore he must be guessing as to the trouble, and guessing, too, at the remedy. Ladies and gentlemen: in science there is no guess-work. No man or woman can die without a cause. That cause should be known to the doctor, and the remedy too! Remember, medical ethics will not cure, neither will dignity founded on guessing help you.

* * * *

I wish to make the following statement, which may be of interest to some of the suffering in Africa:—I have been troubled for the past seven years with a skin disease, nervousness, &c., and have in that time been under the treatment of several family doctors, all of whom did me no good. I finally called upon Dr. H. J. Speer, and under his treatment I have been entirely cured in six weeks.

H. J. JACOBS,
Dated July 8th, 1895. Fordsburg, Z.A.R.

* * * *

Peter Jacob Viljoen wants to add his testimonial to the many hundreds already in possession of Dr. Speer since he arrived in the Transvaal.

Three months ago I called on Dr. H. J. Speer, suffering from catarrh, general debility, weak back, and in fact almost unable to attend to my duties, which are engine-driver to the Netherlands Railroad. I was constantly suffering pain, but since I have been under Dr. Speer's treatment I have found a constant and steady improvement with every bottle of medicine he gave me, and I am happy to say that to-day I am a changed man; his medicines acted like a charm from the first, and I thank God I called on him, for he has given me a new lease of life. This I will bear testimony to.

PIETER JACOBUS VILJOEN,
Dated July 11th, 1895. Netherlands Railway, Springs, Z.A.R.

* * * *

The core of my life has been eaten entirely out of me, and the contents of my pockets have been systematically robbed. I make this statement voluntarily, and I want the public distinctly to understand that this bombast and outrage ought to be stopped, and I hereby testify that Dr. H. J. Speer has, in two months, made me a new man. I had been suffering for the past 16 years of nervous debility, indigestion, and liver trouble, and had been under the treatment of at least a dozen doctors before I went to him. I look upon this as an act of justice, and if there were more people who have suffered as I have, who would come forward and make a statement of facts, there would be less suffering in the world and more smiling faces. Yours very respectfully,

WM. THORNBER.

A. B.—The proceeding is legal. The patient must be, of course, examined at separate times by each medical man. It is preferable that the signatures should not be from father and son, or partners.

BARBADOS AS A HEALTH RESORT.

To the Editors of THE LANCET.

SIRS,—The West Indies are sometimes made use of for those requiring winter rest, change, and sunshine, but not so frequently as they might well be. The voyage to Barbados is a pleasant one of eleven days and a half by the boats of the Royal Mail Steam Packet Co. The Azores are soon passed; then genial warmth begins, the Tropics are entered, and life on board becomes an ideal existence. The packets run at intervals of a fortnight and make direct for Bridgetown, Barbados. West Indian life there bursts at once on the traveller, with the fleet of small boats that meet the ship, manned by the dark-skinned inhabitants of the island, the craft being as miscellaneous in character as the vehicles on the road to the Derby. The island is made use of as a sanatorium by the inhabitants of many of the other West Indian islands; the north-east trade wind blowing here with such excellent effect that disease is uncommon and sunstroke almost unknown, the bracing and invigorating air being always in motion. In addition to the large and commodious hotels in Bridgetown and its neighbourhood a well-managed establishment known as "The Crane" has been built on the cliffs some twelve miles from the town. The drive thither past the gay gardens of Bridgetown and the green sugar-cane fields in the country gives a good introduction to the island. The roads and cane-fields teem with the black labourers, a large proportion of them being female. They work in the blazing sun with splendid energy in their short white clothes, which, covering a fine physique, give a pleasing idea of the population. Close by the hotel are bathing-huts, and most delightful sea bathing is to be had, in which, even by the infirm, no feeling of shock is experienced, and the bath may be prolonged almost *ad libitum*. When I was there last year a trained nurse was kept at the "Crane" to attend any invalids who might come to stay there. A few miles along the coast is the little town of Bath sheba, where good hotels and good bathing can also be found, and I would heartily commend Barbados to those of our profession who are accustomed at this time of the year to send patients for long sea voyages or to foreign lands in search of health. Here the people the island, and the language are all our own. In-door life is carried on practically in the open air. Doors and windows are kept wide open, but carefully jalousied when necessary to keep out the sun. Where convalescence after such diseases as influenza, or breakdown from nerve exhaustion, or early symptoms of phthisis may be the cause of travel it would be difficult to find a more invigorating and health-giving short sea voyage, or a more pleasant destination than the one here indicated. The best months, and the healthiest, are from November to March, inclusive; the temperature then is not disagreeably hot, averaging about 82° to 85° F. in the shade. Such clothes as one wears in the hottest days of an English summer will then well suit the climate in Barbados.

From this island one should certainly not return without paying a visit to some of the other islands, where, though the same health advantages are not perhaps to be found, the beauties of Nature are more abundant and more lavishly displayed. The magnificent island of Trinidad, and the poor, but most beautiful, island of Dominica, both of them some three days' sail from Barbados, should be, if possible, included in the journey. In both these places, and notably in Trinidad, where a very fine hotel has just been opened, good accommodation is to be found, and the West Indian hospitality is as bountiful now as in the days when Charles Kingsley wrote his "At Last."

I am, Sirs, yours faithfully,
17, Finsbury-circus, E.C. S. H. APPLEFORD.

THE GASTRONOMIC ART.

COOKERY and all that pertains thereto has not been studied in England with the attention it deserves, and we welcome the *Chef*, a new journal for cooks, caterers, and hotel-keepers. Judging from the number before us, the new journal is conducted on right lines and promises to prove a stimulus to good cooking in this country. It is not, however, the high-class cooking dealt with by this journal which stands in so much need of reform as what may be described as plain cooking. Amongst the poorer classes the waste of food from faulty methods of cooking and preparing food for the table is lamentable. The journal is published at 13, New Bridge-street, E.C.

Oceanis.—Our correspondent should consult a solicitor, and be careful to explain all details to him. Without, however, giving a legal opinion, we think—1 and 2. Yes.—3. The party with whom the contract was made.—4. Our correspondent has no contract with the shipping company.—5. Let the solicitor advise.

IS NIGHT-WORK A NECESSITY?

To the Editors of THE LANCET.

SIRS,—It is, I believe, generally recognised in the profession that night-calls constitute the chief burden of a general practitioner's life. How many medical men have lost their lives through leaving a warm bed, being compelled to pay visits during the most inclement weather, and their night's rest being, moreover, frequently broken? This often leads to a low, nervous state, with its accompanying insomnia and irritability. Could not one medical man in each district be appointed by his colleagues to engage solely in night-work, he being remunerated either by the patient attended or by the members of the local association? If medical men would work together in this matter a solution of the night-work problem would, I believe, be easily found. Hoping that the above suggestion will be taken up and worked out practically,

I remain, Sirs, yours faithfully,
Westbury, Wilts, Jan. 6th, 1896. ALBERT E. COUZENS.

*** Such a perfection of coöperation and mutual trust amongst medical men as the practice suggested would mean is impossible to conceive. But even if the body of local practitioners could make up their minds to transfer each night all the different trusts placed in them by their clients to one man, and even if the one man could be found worthy to accept such trusts, the arrangement would be a very unfair as well as unpalatable one to the patients. Regular attendance is the most absolute requisite in the treatment of an anxious case; and it would be impossible to give such a case adequate care if the man in charge depended upon the report of another, however able and exhaustive, for the history of all that had happened during the night.—ED. L.

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A COUNTRY DOCTOR'S RIDE, JANUARY, 1786.

THE late Dr. Edward Jenner of Gloucestershire gives the following account of a ride through a snowstorm which he had to undertake in the above-named year:—

January 3rd, 1786.—I was under the necessity of going from hence [Berkeley] to Kingscote. The air felt more intensely cold than I ever remember to have experienced it. The ground was deeply covered with snow, and it blew quite a hurricane, accompanied with continual snow. Being well clothed, I did not find the cold make much impression upon me till I ascended the hills, and then I began to feel myself benumbed. There was no possibility of keeping the snow from driving under my hat, so that half my face and my neck was for a long time wrapped in ice. There was no retreating, and I had still two miles to go—the greatest part of the way over the highest downs in the country. As the sense of external cold increased the heat about the stomach seemed to increase. I had the same sensation as if I had drunk a considerable quantity of wine or brandy, and my spirits rose in proportion to this sensation. I felt, as if it were, like one intoxicated, and could not forbear singing, &c. My hands at last grew extremely painful, and this distressed my spirits in some degree. When I came to the house I was unable to dismount without assistance. I was almost senseless; but I had just recollection and power enough left to prevent the servants bringing me to a fire. I was carried to the stable first, and from thence was gradually introduced to a warmer atmosphere. I could bear no greater heat than that of the stable for some time. Rubbing my hands in snow took off the pain very quickly. The parts which had been most benumbed felt for some time afterwards as if they had been slightly burnt. My horse lost part of the cuticle and hair at the upper part of the neck, and also from his ears. I had not the least inclination to take wine or any kind of refreshment. One man perished a few miles from Kingscote at the same time and from the same cause.

The correspondent who sent us the above extract from a letter of Edward Jenner being a medical man, must feel, as we do, grateful that January, 1896, has not opened with the rigour of January, 1786. We print it because it paints a remarkably true and vivid picture of the alteration of sensation under the influence of extreme cold.

Dr. J. Johnston of Bolton has sent us another of his tantalising accounts of a bicycle tour. His previous one was in Wales. The present expedition was more extended, covering ground in Cheshire, Staffordshire, Warwickshire, Worcestershire, and Shropshire, and embracing an ideal selection of English scenery. Lichfield, Coventry, Kenilworth, and Shrewsbury are unique in their several ways.

M.O.H.—Our correspondent is referred to an article in the present issue dealing precisely with the information he seeks.

THE UTILITY OF FIRST AID.

To the Editors of THE LANCET.

SIRS,—I would not quite say the "futility" of first aid, because I believe we ought to know how to render "first aid" effectively as citizens only of a community. Nevertheless, apart from very definite limitations, I am disposed to think that without very accurate medical diagnosis such aid may often be more harmful than otherwise. Much of what is taught as first aid in surgical cases should really be described and taught as the *handling of the injured*, and this might well be a matter of more concern to ourselves who are medical men, and, further, could well be encouraged as a branch of general education.

Shall a railway guard be taught how to relieve an injured bladder by catheter, or to diagnose the exact import of the pupils so that he may distinguish cerebral hæmorrhage from syncope and abstain from administering stimulants or proceed to administer them? There are about a dozen variations of the pupil, each giving very precise indications of brain conditions; these must be mastered before we can be sure of administering *real* first aid to the injured. Shall a railway official's evidence as a *medical* witness be accepted in the case where damages are claimed from a railway company? These considerations are important. Indeed, such are financial considerations of a railway company itself. Why not compel railway companies to have surgical and medical materials ready in case of emergency, and for certain journeys a qualified medical man?

I met the other night, at a patient's house, a first aid enthusiast, an "expert bandager," who is never without a bandage in readiness. He discussed insensibility and poisons. I asked him how he would treat a case of opium or morphia poisoning. He consulted a small book compiled as a first aid guide by two medical men, and published under the auspices of a wholesale firm of chemists and druggists, for the year 1895. Permanganate of potash and oxygen inhalations were not mentioned; contra-poisons, &c., are recommended. Here is a "Visiting Diary" brought out by another firm for the year 1896. In the column of antidotes I find no mention of oxygen and oxidisers; on the contrary, forced exertions and poisonous alkaloids are to be used as means of recovery. Shall those who administer first aid to the injured, beyond exercising the common offices of intelligent human help, be in the position of medical men in sustaining an action at law for wilful malpractice, such as forced exertion applied in a case of syncope?—I am, Sirs, yours faithfully,

Jan. 3rd, 1896. A MEDICAL MAN.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic 10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-square, W.C.).—8 P.M. Paper:—Dr. Dudley W. Buxton: An Appended Note on Anæsthesia. Casual Communication:—Mr. J. F. Colyer: Some Cases of Open Bite.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. George H. Savage: The Prevention and Treatment of the Insanity of Pregnancy and the Puerperium.

TUESDAY.—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover square, W.).—Dr. R. A. Gibbons: Renal Colic in Infants.—Dr. Ernst Michels: On Prevesical Abscess.

WEDNESDAY.—ROYAL MICROSCOPICAL SOCIETY (20, Hanover-sq., W.).—8 P.M. Presidential Address by Mr. A. D. Michael.

NORTH-WEST LONDON CLINICAL SOCIETY.—8.30 P.M. Clinical Meeting.

THURSDAY.—HARVEIAN SOCIETY.—8 P.M. President's Address and Annual Conversazione.

SOCIETY OF ANÆSTHETISTS (20, Hanover-square, W.).—8.30 P.M. Dr. Sydney Short (Birmingham): Observations on a Series of 550 Timed Nitrous Oxide Cases.

FRIDAY.—BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION (11, Chandos-st., W.).—3.30 P.M. Cases, Microscopical Specimens, &c., by the President, Mr. Mayo Collier, Dr. Pegler, and Dr. Milligan. Mr. Mayo Collier will open a Discussion on the Causes and Consequences of Chronic Nasal Obstruction. Mr. Lennox Browne: A Suggestion to Abolish Gargling in the Treatment of Acute Inflammations of the Throat.

EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-street, Cavendish-square).—8 P.M. Surgeon-General C. A. Gordon: Experiences in Relation to Cholera in India from 1842-'79.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

WEDNESDAY.—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Gowers.

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Harveian Lectures

ON THE

HEART IN ITS RELATION TO PREGNANCY, PARTURITION, AND THE PUERPERAL STATE.

Delivered before the Harveian Society on Dec. 5th, 12th, and 19th, 1895,

BY MONTAGU HANDFIELD-JONES, M.D. LOND.,

OBSTETRIC PHYSICIAN TO ST. MARY'S HOSPITAL, AND LECTURER ON MIDWIFERY AND DISEASES OF WOMEN TO ST. MARY'S MEDICAL SCHOOL; PHYSICIAN TO THE BRITISH LYING-IN HOSPITAL; EXAMINER IN MIDWIFERY TO THE CONJOINT EXAMINING BOARD FOR ENGLAND.

LECTURE I.

Delivered on Dec. 5th, 1895.

MR. PRESIDENT AND GENTLEMEN,—Before I enter on my pleasant and welcome task to-night I must tender to the President and Council my warmest thanks for the honour which they have conferred upon me in choosing me to fill the post of Harveian Lecturer for 1895. An honour, indeed, it is, for if we look back over the roll-call of Harveian Lecturers we find that the list includes the most learned and most eminent men of our profession. If we study the subjects chosen for these theses we find that many of these lectures stand as landmarks in the development of our knowledge. In 1875 Dr. Sibson, one of the most brilliant and sturdiest of the labourers in the field of medical science, brought before us the great subject of "Bright's Disease and its Treatment considered mainly in relation with Arterial Tension from Blood Contamination." It is an honour in itself to follow such a worker. In 1878 Dr. Hughlings Jackson opened out to us the secrets of "Diagnosis of Diseases of the Nervous System" and gave us the treasures of his master mind. In 1883 Sir William Broadbent made his valuable experience on "Prognosis in Heart Disease" our own, and bequeathed to us a treasure-house of clinical experience. In 1886 you, Sir, delivered your lectures on Cancer of the Uterus, and those writings are now the one recognised clinical teaching of that difficult subject. Again, in 1887 Mr. Jonathan Hutchinson delighted us with his splendid exposition of the Causes and Clinical Characteristics of the Diseases known under the name of Lupus. Anyone who heard those delightful lectures illustrated out of Mr. Hutchinson's vast stores of clinical cases and artistic drawings will allow that he is hard to follow and impossible to beat. To-night I endeavour to follow at a distance in the steps of these great teachers; I thank you for the permission and I realise deeply the honour.

In these days of advanced knowledge it is difficult to bring any subject before a learned society which can claim the charm of novelty, but in choosing the study of the heart in its relation to pregnancy, parturition, and the puerperal state as my theme to-night I have taken a subject which has not yet received an exhaustive study, and yet one to which for some years I have given much thought and observation. If my memory serves me well, the first paper I read before any medical society was delivered before the Harveian Society, and its subject-matter was Sudden Death from Heart Failure in Pregnancy, Parturition, and the Puerperal State; I may claim therefore—fairly, I think—that I am dealing with a subject to which, while gladly culling other men's sheaves, I have endeavoured also to add my own gleanings. Before proceeding to clinical study it will be interesting to review briefly the literature of the subject and watch the gradual progress of our knowledge.

Since the year 1828, when M. Larcher brought forward, through his friend and colleague, Dr. Ménière,[1] the result of his work in the Maternity Hospital of Paris, and placed the fact of cardiac hypertrophy in pregnancy on a firm scientific basis, much has been said and written on this important subject. Naturally a fact of so great moment was not allowed to pass unchallenged, and as early as 1833 M. Rochoux[2] protested, though without sufficient ground, against the truth of the assertion. At a later date Lohlein,[3] though admitting the existence of the hypertrophy, endeavoured to show that the estimate had been considerably overdrawn and clearly thought that M. Larcher had exaggerated the effects of the hypertrophied heart in connexion with pregnancy. It will be interesting to consider for a few moments the methods or lines of investigation on which the truth of the existence of this hypertrophy was proved. M. Blot examined the hearts of twenty women who had died during delivery; having carefully emptied these hearts of all blood and clot, he weighed them and found the average weight to be 291·95 grammes. On comparing this with the average weight of the healthy heart in the adult female, a weight that varies from 220 to 230 grammes, very considerable increase was at once manifest. This method, however, while proving incontestably the fact of increased cardiac weight in pregnancy, treated the heart in its entirety and gave no information relative to its component parts. Here, on the other hand, the careful measurements of MM. Larcher and Ducrest[4] come in and fill the gap; both these authors measured with the most rigorous care the thickness of various parts of the heart-wall in over a hundred cases of women who had died during or soon after delivery; both came to the same conclusion—namely, that there was no evident increase of thickness in the wall of either right or left auricle, or in that of the right ventricle, but that the left ventricle was considerably hypertrophied. According to M. Larcher the thickness of the wall of the left ventricle was increased from a quarter at the minimum calculation to a third in cases of maximum hypertrophy. Ducrest, measuring in each case at the thickest part of the left ventricle, and taking the normal measurement given by M. Bigot[5] as his standard—viz., 0·010 m.—found the thickness to vary in puerperal subjects from 0·011 m. to 0·022 m., giving thus an average of 0·015 m., or an increase of 0·005 m. Both the above methods are, of course, only applicable in cases in which a post-mortem examination has been available, and are of course useless, for that reason, in cases where we may wish to establish the presence or absence of hypertrophy of the left ventricle during life. In comparatively late times Duroziez[6] sought by very careful percussion of the præcordial area to establish the fact of the presence of hypertrophy. Having made an exhaustive examination of 135 women, he came to the following conclusions: "1. The hypertrophy of the heart in the puerperal state is demonstrable; the heart does enlarge during the pregnancy. 2. During the first day after delivery the left cavities of the heart diminish in size, the right cavities remain enlarged. 3. At the time when the secretion of the milk begins, about the third day of the lying-in period, the heart is lengthened. The heart remains during lactation enlarged, but becomes small if the woman does not suckle. 4. In women who have frequently borne children the heart is larger than in such as have only been delivered once or twice." As to the possibility of obtaining such accurate results by percussion I do not propose to argue. Fritsch has questioned them on the ground that the presence of the enlarged female breast would be an insuperable obstacle, but I fail to see why the methods should not be applicable if suitable cases are chosen.

The last series of observations refers to the possibility of diagnosing cardiac hypertrophy from the presence of certain bruits heard over the cardiac region in pregnant women. As early as 1837 MM. Jacquemier and Moreau had drawn attention to these murmurs and stated: "The *bruit de soufflet* of the præcordial region in pregnant women appears to admit of the same explanation as that given for plethora; it is, on the one hand, the too great quantity of blood, the predominance of fibrine; on the other, the cavities of the heart being momentarily too small, and their increase of energy for moving the greater mass of the blood, which determines the alteration of the first sound; the persistence of the same sound in some newly-confined women seems to recognise the same cause. It is evidently the state of the blood, the plethora, which in pregnancy is the cause of the *bruit de soufflet*." In M. Larcher's writings we find the

[1] Archives Générales de Médecine, vol. xvi., p. 469.

[2] Dictionnaire de Médecine, vol. iii., p. 504.

[3] Zeitschrift für Geburtshülfe, 1878.

[4] Archives Générales de Médecine, 1859, cinquième série, tome xiii., p. 291.

[5] Mémoires de la Société Médicale d'Observation.

[6] Gazette des Hôpitaux, No. 104.

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statement: "This *bruit de soufflet* implies, as has been already said, the hypertrophy of the organ which produces it; in consequence the fact of the presence of these murmurs establishes the existence of our law of cardiac hypertrophy in pregnancy; again and again we have observed the constant relation which exists in pregnancy between the *bruit de soufflet* recognised by auscultation at the præcordial region and the hypertrophic state of the left ventricle always found at the necropsy." M. Beau[7] also writing in 1846, says in his Memoir on Arterial Sounds: "The fact of left ventricle hypertrophy as observed by M. Larcher has nothing about it which ought to cause us astonishment when we consider that we have always hitherto shown that arterial sounds suppose always dilatation of the heart joined to a hypertrophy more or less notable." In addition to proofs already adduced modification in the pitch and intensity of the cardiac sounds might fairly be adduced here, but, as this point has been but slightly touched upon, it is, perhaps, scarcely needful to expatiate upon it now. With regard to the *bruit de soufflet* recognised by M. Larcher, M. Beau, and others, and considered by them to be a nearly constant concomitant and index of left ventricle hypertrophy, I should like to record a contrary experience. In about fifty multiparæ examined by myself during the seventh and eighth months I have heard this bruit only some five or six times. I have not included in this number women in whom anæmia is markedly present, but have limited my observations to strong, healthy mothers, in whom one might reasonably expect hæmic bruits to be absent. That a bruit is *occasionally* present in cases of pure left ventricle hypertrophy I do not wish for a moment to deny. Walsh[8] says on this point: "Systolic blowing murmur, basic and audible at the second right cartilage, is *sometimes* heard in cases of pure hypertrophy; nor can it be positively ascribed in all cases to co-existent spanæmia. I have known such a murmur disappear when the heart had become comparatively quiescent by treatment of a kind depressing rather than otherwise, and wholly non-ferruginous. Hence excess of force of propulsion of naturally constituted blood would seem capable of generating direct murmur. Again, hypertrophy may possibly during the excitement of palpitation induce mitral regurgitant murmur by disturbing the action of the papillary muscles; such murmur actually does, as a clinical fact, exist at one time and disappear at others. Systolic basic murmur may also, very probably, be generated in cases of dilated hypertrophy in consequence of the altered relationship of the aortic orifice to the cavity of the ventricle—altered both in point of size and of direction of the blood current." I think the necessary inference, from what has already been said, must be that a bruit dependent on left ventricle hypertrophy will (if due precaution be taken during examination of the heart) occur but very rarely. Dr. Angel Money[9] has pointed out in a paper read before the Royal Medical and Chirurgical Society the great frequency of cardiac murmurs in the puerperal state, and questions their relative constancy during the pregnant period. Dr. Macdonald sums up the evidence for and against the existence of the hypertrophy of the heart in pregnancy so ably and so fairly that I shall quote his remarks *in extenso*. He says: "Notwithstanding what has been argued to the contrary, I cannot help feeling that there is a certain amount of such hypertrophy. My reasons are the following: 1. I cannot conceive so many honest observers as have examined such large numbers of the hearts of women dying during the childbed period to have been completely mistaken in a matter of the kind, though they may have been so in regard to the amount of the increase of size. There is great liability to error in this direction, in consequence of the great difficulty involved in determining a reliable average for the normal heart. 2. I think it can be shown that, though they have erred in using tables that somewhat under-estimated the normal heart in respect both to weight and thickness, and consequently were led to make the difference appear greater than it should be, there still remains even after such reduction is made a substantial difference in favour of their views. (*a*) Thus in regard to the average thickness of the left ventricle in pregnant and non-pregnant women Ducrest states the average thickness at the thickest part of the wall of the left ventricle in the puerperal woman at 1·5 cm. Bizot gives in the same cavity the average thickness for women generally as 1 cm.; Peacock, again, makes the average thickness of the left ventricle in women generally at the base 1·102 cm., at apex 0·526 cm., at mid-point 1·26 cm. It will thus appear that, granting that Bizot's averages are too low, and assuming Peacock's, as being the later, to be the more correct, there is still a margin of 0·24 cm. in favour of the truth of Ducrest's observations. (*b*) If, then, we take and compare the weights as given by Blot and by Peacock respectively, we find that Blot's average in the puerperal condition is 9 oz. 38 gr. troy. Peacock gives the general average of healthy hearts in females that have died from twenty to fifty-five years of age as 8 oz. 15·5 gr. troy. In the cases of those who died of acute diseases the averages varied from 7 oz. 140 gr. troy to 9 oz. 55 gr. troy, whilst of those who died of chronic diseases the average varied from 6 oz. 182·5 gr. troy to 8 oz. 117 gr. troy. (*c*) Macdonald gives the results of three hearts which he himself examined. He states that in two of these the heart was markedly enlarged, and the left ventricle decidedly hypertrophied. (*d*) A certain amount of cardiac hypertrophy is not only rendered probable by the existence of greater work for the heart to perform during pregnancy, but has analogies in many similar changes that occur during pregnancy in other organs."

Since studying the changes which occur in the heart in connexion with pregnancy I have had the opportunity of carefully examining the hearts of three women who had died suddenly during the course of labour or childbed.

CASE 1.—This was the case of a healthy woman aged forty, in labour with her fifth child; towards the end of the second stage the uterus ruptured, and death ensued before assistance could be rendered. The heart was markedly enlarged and the wall of the left ventricle considerably hypertrophied; the hypertrophy amounted to nearly a third above the normal thickness. The measurement was taken at the point of maximum thickness of the left ventricle.

CASE 2.—A healthy woman aged thirty-five died on the third day after delivery from the sudden rupture of an abscess in the right ovary. Here the heart was large, and distinct increase in the thickness of the wall of the left ventricle was present, though the hypertrophy was not so pronounced as in the previous case.

CASE 3.—This was the case of a feeble, under-sized woman aged thirty-eight; severe ante-partum hæmorrhage occurred in her third pregnancy within a week of full term. Death took place the day after delivery from cardiac failure. Here no marked enlargement or hypertrophy of left ventricle could be detected.

Dr. John Phillips, in the *Practitioner* for June, 1895, quotes two cases in which he observed the cardiac condition after death, this occurring in one case from rupture of the uterus during labour, and in the other from suicide during the seventh month of pregnancy. Clearly this last case is not so suitable for study, owing to the early stage of the pregnancy. In neither case was there evidence of hypertrophy of the left ventricle, though in both cases the weight of the organ was slightly above the average. The evidence seems to point to the fact that, though occasionally left ventricular hypertrophy may not be very pronounced at the end of pregnancy, especially in feeble or poorly developed women, yet in the vast majority of healthy subjects this increase in thickness of the wall of the left ventricle is always present. Dr. Phillips[10] says: "During pregnancy the work of the heart is augmented, owing to the larger quantity of blood and the increased resistance in its circulation. During the later months this task is added to, in consequence of the decreased power of expansion of the thorax and the compression of the large abdominal veins by the pregnant uterus. In spite of the additional work a healthy heart is possessed of so much reserve force that hypertrophy is unnecessary." Where, however, is the proof of the existence of this reserve force? Dr. William Collier, in a most valuable paper read before the Medical Society of London in November, 1892, points out the constant effect of increased strain on the heart in healthy and hardy men in bringing about hypertrophy and disease of the organ. Dr. Clifford Allbutt, in the St. George's Hospital Reports for 1870, published a paper drawing attention to the effects of overwork and strain on the heart and great bloodvessels, and showed that constant strain thrown on the hearts of men first produced dilatation of the chambers, followed by hypertrophy of their muscular walls. In badly fed and badly

[7] Archives Générales de Médecine, quatrième série, vol. x., p. 28.
[8] Diseases of the Heart, third edition, p. 283.
[9] Transactions of the Royal Medical and Chirurgical Society, vol. lxv., p. 87.
[10] Loc. cit.

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developed] men dilatation was the most pronounced change and often led to valvular incompetence early in the day; more frequently, however, dilatation was accompanied by hypertrophy, and for a time all went well. It is important to note, as Dr. Clifford Allbutt expressly states, that these changes were as a rule very gradual, and that the symptoms induced were not sufficiently marked to make the sufferers seek medical aid until considerable periods had elapsed. Apparently the same kind of changes are brought about in the lower animals by precisely the same causes, for hypertrophy of the heart occurs with especial frequency in racehorses, hunters, greyhounds, and foxhounds. At death the heart of the celebrated greyhound, Master McGrath, was found to be enormously hypertrophied; and Mr. Fleming records the fact that the heart of the celebrated racehorse, Helenus, weighed 15½ lb., instead of about 9 lb., the normal weight. Facts like these contradict the idea that the heart is possessed of a reserve force which renders hypertrophy unnecessary, but strongly support the view that extra work implies compensatory development and place the theory of cardiac hypertrophy in normal pregnancy out of the region of reasonable doubt.

For some time I have endeavoured to obtain confirmatory evidence by watching the effect of rapidly growing abdominal tumours on the heart. Of course, in these cases the presence of malnutrition owing to the parasite life of the tumour has to be taken into account, and heart weakness from this cause must be allowed for. My observations are not yet sufficiently numerous to allow me to speak with absolute certainty, but I have noted the following facts. In patients in whom abdominal tumours (of a size to reach nearly up to the xiphoid cartilage) have been removed, and examination of the chest has been made within a month after the operation, the heart's apex may often be found displaced downwards and outwards and the area of cardiac dulness increased. Again, in elderly women, should an abdominal tumour grow rapidly, heart failure may be a prominent symptom at an early date, as the advanced age of the patient renders the development of compensatory hypertrophy to meet the rapidly increasing work less probable. The following case illustrates this point rather happily.

A sparely built woman aged sixty-six was admitted into the New Boynton Ward, St. Mary's Hospital, under my care. Her history was as follows. Her general health had always been good, but for the last three years she had been conscious that her abdomen had been considerably larger. As, however, her general health remained fairly good and she was not materially inconvenienced by her increase in size, she did not seek medical relief. During the last three or four months, however, her abdomen had enlarged very rapidly; she had suffered from breathlessness and palpitation, her legs had been swollen, and she could not lie down at night. On admission her condition was as follows. The abdomen was distended by a tumour which reached up half-way between the umbilicus and ensiform cartilage; there was free ascitic fluid in the peritoneal cavity; the abdominal walls were intensely œdematous; the legs were enormously distended by dropsical fluid. The heart was acting feebly and irregularly, and a soft systolic murmur was audible at the apex; the heart sounds were very feeble, and the pulse-rate was 140 to 160 per minute. The condition was so critical that I performed ovariotomy with as little delay as possible. After the operation the improvement was rapid and most striking. The pulse-rate within forty-eight hours had fallen to 120; the œdema very rapidly cleared up, and by the end of ten days the pulse-rate was only 88, regular, and of fair force, while all trace of dropsical effusion had disappeared and the patient was able to lie down and breathe comfortably. The heart sounds soon became clear, and the murmur previously heard disappeared.

As an example of the first fact referred to I may quote the case of a young woman aged twenty-nine, who is now in the New Boynton Ward at St. Mary's Hospital. I have watched her case during the last five years. She was sent to me because of a fibroid tumour which reached up above the pubes, nearly to the level of the umbilicus. Six months ago the tumour began to grow rapidly, and a fortnight ago I was obliged to remove the mass. Palpitation and dyspnœa have subsided since the performance of the hysterectomy, but at the present time the heart's apex is in the upper part of the sixth intercostal space and reaches outwards to the vertical nipple line. There is nothing in the patient's history to account for the cardiac hypertrophy save the long-continued presence of the fibroid tumour and the effect of the growth on the heart. A condition of high arterial tension is in itself an argument in favour of the existence of hypertrophy of the left ventricle, and of the presence of this exalted tension I think there can be no reasonable doubt. Both at St. Mary's Hospital and at the British Lying-in Hospital I have made numerous observations with the sphygmograph to ascertain, as far as possible, the absence or presence of evidence of increased arterial tension in women advanced to nearly the full term of pregnancy, and in all instances in which the patient has been a strong, healthy woman have found it present. Occasionally in feeble anæmic women the sphygmographic tracing has been wanting in evidence, but this is nothing more than one would expect. Macdonald and other observers have argued that not only is hypertrophy of the left ventricle present, but also that, more or less, dilatation of the auricles and right ventricle is existent. The former points out that as the amount of blood circulating within the mother's vessels during the latter months of pregnancy is increased beyond question the same must be true of the amount circulating in the heart within a given period of time, since the heart is only a section of the general vascular system, unless it could be shown that the heart beats more quickly during the latter months of pregnancy than at other times. But the latter is not the fact, therefore it follows that at each contraction of the heart a larger amount than normal must be propelled from the ventricles, and at each diastole a larger amount must find its way to these cavities. And the same must be true of the auricles. It follows, therefore, that all the chambers of the heart must be somewhat dilated during the last months of pregnancy, though it would appear that the increase of muscular tissue is very greatly restricted to the left ventricle. Hence there is reason to believe that in the left ventricle, during pregnancy, we have as a physiological condition a certain degree of increase in its capacity, associated with a variable amount of muscular hypertrophy in its walls; and in the other chambers we have the same slight dilatation, uncompensated by muscular hypertrophy. That dilatation is present as well as hypertrophy might be suspected from the outward displacement of the apex of the heart during the latter months of pregnancy. Towards the end of the sixth month, when the upward pressure on the diaphragm is hardly sufficient to lead to much dislocation of the heart's apex, I have often noted that the apex-beat may be found, if not exactly in the vertical nipple line, yet at all events closely approximated to this line, and it is difficult to avoid the conclusion that this change of position depends principally on the presence of dilatation.

What is the condition of the heart after delivery? In the first place it is clear that a great strain is laid upon the heart during labour from sheer muscular exertion, and the heart muscle must be left in a somewhat tired and exhausted condition. Again, the emotional effects of excitement, and possibly fear, must tell unfavourably on the nervous supply of the organ. In addition to the above causes there are other special difficulties which the heart has to encounter. Thus during the contractions of the uterus the circulation through the womb is impeded, and the blood-pressure rises in the mother's vessels, thus throwing a greater strain on to the heart and calling forth the exercise of greater pumping-power. Also, in the second stage of labour the long expiratory efforts of the thorax lead to interference with the return of venous blood into the right heart, as is shown by the congested condition of the face and fulness in the veins of the neck. Spiegelberg, in his valuable paper published in 1871, called attention to certain cardiac conditions following delivery. He believed that he had found a key to the explanation of many cardiac troubles arising after labour in the existence of suddenly diminished arterial pressure and increased venous pressure. He says: "These unfortunate accidents are rather conditioned by this, that the degree of the compensation of the cardiac lesion, being under ordinary circumstances enough to make the situation tolerable, is no longer sufficient for the altered, and especially for the suddenly altered, relations of pressure. With the expulsion of the child and its membranes these relations of pressure are suddenly changed, the placental circulation is eliminated, the numerous and wide utero-placental vessels are shut, and the pressure in the aorta sinks; this results still further for the reason that, whilst the channels have in part (in the uterus) become impassable, the mass of blood is still relatively increased, for the hæmorrhage during the labour in normal cases is not so copious as to reduce the previously

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existing increased mass of blood immediately to the non-puerperal standard. In consequence of the increased pressure arising in this manner in the veins, to which is added the greater mobility of the diaphragm, acting in the same direction, brought about by the emptying of the uterus, the blood after delivery flows more copiously into the thoracic cavity and to the lungs; the work for the right heart increases." We can easily understand that these changes of pressure, quickly overcome and equalised by a sound heart, may act very injuriously upon an organ which has been in any degree weakened. Fritsch also believes that the sudden troubles which arise from heart disease during childbed are due to the defective cardiac compensation being unable to meet the conditions introduced by the suddenly altered relative pressure, although he disagrees with Spiegelberg as to the manner in which it acts. Fritsch lays down that a certain amount of cardiac dilatation exists to meet the requirements of a greater amount of blood circulating in the heart during pregnancy at each beat. This dilatation, he argues, must involve both sides of the heart. The healthy heart is able to meet these extra requirements, but a diseased or feeble organ suffers from imperfect power of accommodation to these demands upon it, and as the pregnancy advances the effects of this defective power of accommodation increase. After labour Fritsch believes that the great amount of blood squeezed out of the uterus finds easy accommodation in the enormous abdominal venous plexuses and in the expansible capillary plexuses of the peritoneum and broad ligaments. This it readily does, as the abdominal pressure after labour, though it need not be negative, is nevertheless much diminished. Provided the heart is healthy, all is soon restored to order. But, suppose the heart is too dilated in connexion with disease involving it, too little blood flows into it, it contracts strikingly irregularly, too little reaches the smaller circulation, and the blood throughout the body is defectively oxygenated. Vital force sinks in consequence, the ill-nourished cardiac muscle loses its force, and thus is established a vicious circle of the most dangerous kind. The risk, manifestly, must be greater in dilated hearts, yet well-compensated hearts may overcome the period of violence and pressure from the labour; but in anæmic and weakened patients, possibly during the pregnancy, the deterioration may be so important that the labour is either the end or the beginning of the end. Lebert holds that pregnancy and parturition are very liable to operate injuriously not only upon the valves of the heart but also upon its *muscular* tissue. This view is worthy of special consideration and is supported by many clinical and pathological facts. Ollivier[11] mentions a curious fact observed by himself—viz., that in some cases the hypertrophy started during pregnancy seems to undergo increased development after labour, and mentions a case in which marked hypertrophy of the cardiac muscle was present and gave rise to troublesome symptoms for a year or more after the pregnancy had been terminated. The case is so interesting that I venture to record it in detail.

A woman aged thirty-eight, of robust appearance, came complaining of dyspnœa and palpitations. The face was flushed without being cyanosed; respiration was frequent, but there was no cough or expectoration. The lungs were quite healthy. The apex-beat of the heart was in the sixth space, two centimetres outside the vertical nipple line; the impulse was strong and felt over a wide area. Cardiac dulness was much increased. On auscultation no pericardial friction or endocardial *souffle* was heard, but the valvular sounds were high-pitched and of a metallic note. The antecedent history of the patient was good, and there was nothing to account for the hypertrophy except pregnancy; alcoholism, emotion, previous cardiac disease—all were carefully excluded. Married at the age of twenty-eight, the patient had had two children in the first three years of her married life, and since that time she had always suffered, though previously she had enjoyed sound health. Towards the seventh month of her second pregnancy she commenced to complain of palpitation. Delivery was natural, but the palpitations continued, and any slight exertion made them much worse. By degrees respiratory troubles appeared in addition to the palpitation, and now they formed together a source of constant trouble. Six months later no change had taken place in the symptoms. There can be no doubt that the normal hypertrophy of pregnancy was in this case carried on to a morbid amount, and, as may happen in the uterus, involution was interfered with, and hyperplasia resulted.

In considering the condition of the heart after delivery there is another point, which has met with little, if any, consideration. We have seen that most authors are agreed that considerable hypertrophy of the heart does take place during pregnancy in order to meet the increasing strain thrown on to that organ, but nothing has been said of any shrinkage or diminution of this compensatory development after labour is over; yet, judging from the analogy of the uterine muscle and from the relation of development to work demanded, there should exist some retrograde changes in the cardiac muscle. Broërs, writing in *Virchow's Archiv*[12] on the involution of the uterus after labour, states that as the result of experiments he finds that the first cause of diminution in volume of the muscle cells is a discharge of glycogen from the hypertrophied muscular fibres; at the same time the œdematous inter-muscular connective tissue parts with much of its water through absorption. For the first few hours these changes alone constitute involution. The muscular coats of the arteries share in the loss of glycogen. At the end of the first day true fatty degeneration can be detected in the muscle cells. After a few days this well-known process alone finishes the involution, no more glycogen being excreted. It is impossible to escape the questions, Does a similar fatty change take place in the cardiac muscle after the termination of pregnancy? Is the fatty degeneration ever carried on to a harmful extent, thereby leading to a dangerous weakening of the heart's power? And, thirdly, is this theory purely hypothetical, or is there clinical or post-mortem evidence which can be brought forward in support of it? We shall return to a study of these points before long.

We have so far studied the changes which take place in the heart during a normal pregnancy, and we have also briefly reviewed the condition of the heart after delivery. We are now in a position to study some of the bearings of these changes on the condition of the heart during pregnancy and labour, and also the influence of cardiac changes on the heart after delivery. At present we are not specially concerned with the influence of "valvular" disease of the heart on pregnancy, parturition, or the puerperal states. Indeed, we see that in the majority of instances patients with valvular disease of the heart pass through pregnancy, labour, and the lying-in period quite as satisfactorily as patients who have sound valves to their hearts. In one case, of which I have notes, the patient, a young woman aged about twenty-five, who had suffered from diseased mitral valves since childhood, noticed through three pregnancies that she was always better and had less palpitation and cardiac trouble when "carrying" her child than at any other time. In her case the cardiac hypertrophy of pregnancy seemed to exercise a distinctly beneficial effect. It is undoubtedly true that pregnancy comes as a formidable complication in cases in which endocarditis has *recently* existed, for the increased strain thrown upon the heart is very prone to lead to a recurrence of the endocardiac inflammation, and puerperal endocarditis seems to have a special tendency to become distinctly ulcerative. Macdonald allows that inflammatory action in the endocardium, if it is not septic in origin, is far more liable to attack cases of heart disease which are of a comparatively recent origin than those which are of long standing. In these latter, he says, "disturbances of compensation appear to me to be the evils of which one has most to stand in dread." Of course when valvular disease exists and compensatory hypertrophy is imperfect or barely sufficient for the requirements of the vascular system pregnancy does introduce additional danger, but the same danger of heart failure may exist when the valves are sound. Macdonald states that the evils likely to arise from pregnancy in connexion with cardiac valvular lesions are referable to two classes:—1. Destruction of that equilibrium of the circulation in heart disease which has been established by compensatory arrangements. This result seems to be intimately associated with the high vascular tension and coincident hypertrophy of the left heart present during the latter months of pregnancy. He should have said: "occasional absence of the coincident hypertrophy of the left heart present during the latter months of pregnancy." 2. Introduction of fresh inflammatory lesions upon the valves and endocardium of a heart already weakened by disease—or, in other words, by *recent* endocarditis.

[11] Maladies Chroniques d'Origine Puerpérale.

[12] Vol. cxii., part i., July, 1895.

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He goes on to say that pregnancy is apt to act injuriously, not only upon the valvular arrangements of the heart, but even upon the muscular tissue of the heart itself. The second evil, from the very nature of things, must occur so very infrequently that practically disorders of compensation, and, secondly, degeneration of the muscular tissue of the heart, are the two evils with which we have to deal. If we ask what is the nature of this degeneration of the muscular tissue of the heart I think that we are bound to regard it as "fatty" in nature. Putting aside the fact that in cases in which the abdomen has been occupied for some time by large tumours (such as ovarian and fibroid growths) there is often found a fatty degeneration of the large organs—due, it may be, to interference with the diaphragm and defective oxygenation of the blood in the pulmonary circulation—we still have to consider the question of retrograde changes in the heart after labour or towards the close of pregnancy. It is generally allowed that, granted that the left ventricle does undergo hypertrophy during pregnancy, the latter condition is not a permanent one, and within a longer or shorter time after delivery the ventricle returns to its normal thickness and size. Reference has been made already to the conclusions arrived at by Duroziez—viz. (1) that the heart remains enlarged during lactation, but becomes small if the woman does not nurse her child; and (2) that in women who have frequently borne children the heart is larger than in such as have only given birth once or twice. This last conclusion suggests the probability that the heart, though shrinking after delivery, does, like the uterus, never completely regain its previous proportions. There is, then, a close sympathy between the heart and the uterus; when the latter enlarges, so does the former, and when the uterus reverts to its usual size the heart has a tendency to follow suit. This coincidence does not necessarily imply a *post hoc* and *propter hoc* tie between uterus and heart, but it suggests that the wave of formative energy which sets in and has its starting-point in the stimulus of conception affects equally heart and womb. Granted, however, the fact of cardiac hypertrophy in pregnancy, and that of the heart's return after delivery to its former size—a return which Ollivier in his "Étude sur les Maladies Chroniques d'Origine Puerpérale" states to be very rapid and to leave no trace behind—how does this return take place? Is it, as in the case of the uterus, by a process of fatty retrograde change with removal of the waste products? And does the process of reversion ever go on to an excessive degree, as sometimes happens in the case of the uterus? Again, is the process of cardiac involution ever premature? Does it under certain circumstances, which are conceivable, set in, like placental degeneration, before the objects for which the growth has been called into existence have been fulfilled? That the cardiac muscle may undergo temporarily a process of fatty degeneration and become restored again to a healthy and normal state is well known to us; it occurs again and again in cases of fevers such as typhoid fever and typhus fever. In looking over the writings of authors who have studied the question of sudden death during and after pregnancy numerous cases are found to be recorded where fatty degeneration of the heart was observed at the post-mortem examination, and very little else; few deny that this may be a cause of sudden death, but the majority do not give it a prominent place. M. Ambroise Mordret writes: "As for the fatty state of the heart, it is a circumstance I have many times noted"; but he goes on to add: "At the same time I do not see how to admit any relation between fatty degeneration of the heart and the puerperal state; the puerperal state may offer some mechanical obstruction to the circulation, but that is all, and effort may determine a rupture." May we not then fairly assume that in the majority of cases the hypertrophied muscular fibres of the left ventricle do soon after delivery (and in some cases even earlier) undergo a process of retrograde metamorphosis, and that this change is fatty in nature? In the case of women whose constitution is sound, and in whom the vascular and nervous systems are well-balanced, the process of decay and reconstruction goes on with well-adjusted steps, the cardiac power is not unduly weakened, and no morbid symptoms result; but with those in whom any vice of nutrition dwells, or in whom the wheels of their chemical processes are apt to become clogged, serious results may ensue; the heart tissues may become weakened and overcharged with fat, and only a slight addition of emotion, shock, or muscular strain is needed to tax the weakened organ past its powers of endurance.

I should like here to call attention to what seems to me to be a very important fact whilst dwelling on this subject of fatty change; there is no difficulty in recognising at a post-mortem examination *advanced* fatty degeneration of the heart—the faded-leaf hue of the quondam muscular tissue, the weakened resistance to pressure with the finger, and the exudation of oil under pressure are all diagnostic; but it is different in a case in which the fatty process is less advanced and the presence of the change may be easily overlooked. I have frequently seen a heart pronounced to be healthy at a necropsy, and yet, when the tissue has been submitted to microscopic examination later, the presence of well-marked degeneration of the muscular tissue and fatty metamorphosis has been well seen.

An Address
ON
PROFESSIONAL UNIONISM.

Delivered before the South-West London Medical Society on Jan. 8th, 1896.

BY W. G. DICKINSON, L.R.C.P. LOND., M.R.C.S. ENG., D.P.H.

MR. PRESIDENT AND GENTLEMEN,—I need hardly apologise for bringing forward this subject. Having undertaken to open a discussion on some ethical question at this meeting, it seemed to me only natural to choose one to which almost every issue of the medical journals for the last twelve months and more has contained some reference. Sometimes these references have been anything but encouraging. The *Times* went out of its way during the last annual meeting of the British Medical Association to warn the profession against anything like trades-unionism. The *Practitioner* took the same line, described our grievances as "sentimental," and alluded to the discussions of these "well-meaning, but tedious gentlemen." But the weekly journals more in touch with the profession have taken a truer view, and have freely recognised the need which exists for united action. I will only refer you to the papers and discussions in the Ethical Section at the last annual meeting of the British Medical Association, and to the recent excellent series of articles in THE LANCET, headed "The Battle of the Clubs," as showing the amount of importance now attached by medical men all over the country to union amongst themselves for defensive purposes. In a leading article a few weeks ago THE LANCET[1] said: "There is a general feeling throughout the profession in favour of a more strict enforcement of the principles and duties of medical ethics. The profession is crowded as it never has been before, and the temptation to resort to undignified and unprofessional methods is greater than it has ever been; but the general antipathy of medical men towards such methods continues and is likely to continue." It then proceeded to urge medical men to organise in every district and to use their local authority in a dignified manner for the assertion of their rights, and in condemnation of those who are willing to betray the general interests of the profession if they can thereby gain a personal advantage.

The first point which I wish to raise in order to clear the way is, What do we mean by unionism in the profession? I will then ask you to discuss its principles and objects, and the methods by which the latter may be attained. I may say at once that in my opinion our unionism ought to differ very widely from trades-unionism. No one in these days disputes the right of any class in the community to combine for the promotion of its own interests. Whether such combinations, when they interfere with the natural working of the laws of supply and demand, are advantageous to the class concerned I consider more than doubtful, but this is beyond the scope of our discussion. Whatever opinions may be held as to the theory of trades-unionism and its application to the present circumstances in our profession, I, for one, disclaim all sympathy with its

[1] THE LANCET, Nov. 9th, 1895.

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methods. I trust that we shall never countenance the interference with individual freedom, the grinding tyranny, and the class-selfishness which characterise so many modern trade movements. According to Mr. Sidney Webb, "a trades-union is a continuous association of wage-earners for the purpose of maintaining or improving the conditions of their existence"; this sounds harmless enough, and if we call a professional union "a continuous association of professional men for the purpose of maintaining or improving the conditions of their existence" I think that no objection can reasonably be taken to the definition, or to the object thus stated—least of all by the wage-earning class, who, from their mere numbers, must always make the greatest demands upon us. It should be borne in mind that in our case the usual conditions are reversed; we—the numerically few—are the employed (and often the unemployed), while the public—the many—are the employers. It is not proposed that we should attempt to coerce the public, our employers, by strikes or any similar means, but rather that they should share with us the advantages of organisation resulting in improved remuneration and raised status which will accrue to us as a class if our efforts are successful. I consider that our unionism should depend for its success upon moral rather than physical forces, and that we should treat those of our own body who may differ from us as gentlemen, instead of stigmatising them as "blacklegs." Let those of us who have given up material advantages for the benefit of our professional brethren, and from no other motive, come forward and throw the first stone at men who have been forced by stern necessity into undesirable ways. I do not by this mean that these men should be encouraged—quite the contrary; every effort should be made to deter them from sacrificing the honour of their profession, and in those cases, which must unfortunately exist, in which remonstrances have no effect our only alternative is to leave them severely alone. With regard to those who, although in good general practice and of high professional status, deliberately sell themselves and their fellow-practitioners into lay bondage, it should be the duty of the local union to tell these gentlemen in unmistakable terms what is thought of their conduct. No man is altogether insensitive to the opinion of his fellows, and the better his position the more sensitive he is; the amount of moral pressure, therefore, which can be brought to bear by a society such as ours, which includes the great majority of the local practitioners, must necessarily be very great.

This brings me to the principles upon which all professional unions should be founded. In the first place, there should be no exclusiveness about them; they should be open to all, and endeavours should be made to induce all to join them. What we should aim at is to bring home to the mind of every practitioner, high and low, that the interests of the profession are his interests, and that anything done to damage these interests either by himself or others in the long run injures him, whatever immediate profit may be gained thereby. In the second place no limitations should be placed on individual freedom of action, unless this should be in violation of the recognised principles of medical ethics, which should be at all costs upheld. Thirdly, we ought to remember that the profession exists for the benefit of the public, and that therefore, however much we may refuse to be dictated to by lay organisations, we must be careful that the interests of the public do not suffer. The public must, moreover, be made to see that their interests will suffer if by means of various trading societies the general status of the profession is lowered, and if the great mass of the middle and artisan classes should hereafter have to rely for medical attendance upon the overworked and underpaid individuals who have succeeded in underselling their competitors in an undignified struggle for so-called medical aid appointments. There is no doubt that we have to thank these lay societies which contract with medical men on humiliating terms and conditions for having at last roused us as a profession from our selfish apathy, and for having caused us to recognise and to endeavour to rectify the defects in our organisation.

What, then, are the objects of professional union? I think that these may be stated as threefold: firstly, to establish our freedom of action in all questions between us and the public; secondly, to render the profession more self-governing than it is at present; and, thirdly, to cultivate among ourselves that *esprit de corps* which, in most localities, has in the past been conspicuous by its absence. On the first head I think we ought so far to imitate trades-unions as to fix a minimum price for contract work, and this should be fairly general all over the kingdom. As is generally known, the usual payment for club members has seldom exceeded a penny a week for adults (sometimes even less), and where children are taken only a halfpenny has been charged. I quite agree with what was stated at the last annual meeting of the British Medical Association—namely, that these rates ought to be doubled, and that they could be doubled without hardship to the artisan class if we all stood together in the matter. The present rates are so low that the services rendered are regarded as semi-charitable both by employers and employed. If a more adequate payment were made, medical men would feel that they were being fairly remunerated, and the public could not fail to benefit by the increased attention which they would receive. In private practice none of us are obliged to attend for an inadequate fee. Why should we do so in contract work? Further, we want no go-betweens in the shape of these insurance companies and lay committees to which I have already alluded. We desire to be absolutely free to deal with the public in the commodity which we have to dispose of. It is not enough to reject the terms of the lay societies, but we must offer the artisan classes our attendance at a reasonable contract rate, in such a form and under such conditions as we consider compatible with our duty to them and to ourselves. We should establish a Public Medical Service on a professional basis in every district, managed by ourselves, and strictly limited to the class for whom it is intended—namely, those who cannot pay ordinary fees. I am glad to say that on the initiative of, I think, our first President, Mr. T. S. Howell, and the late Dr. Nicholas, Wandsworth has the credit of having established fifteen years ago what was, I believe, the pioneer society on these lines. The second object—namely, that of increasing the self-governing powers of the profession—I regard as being no less important than the first. The Council of the British Medical Association has at last discovered the fact that the profession is governed by the "privileged class" of practitioners, and is very properly about to bring in a Bill to increase our representation on the General Medical Council. I fear that the Association is largely controlled by the same class, since its Council hesitates to alter the Articles of Association in order to permit the performance of the most obvious of its duties towards its members—viz., to defend their material interests. I do not altogether blame the Council for this; the fault rests with the members of the branches themselves, to whom alone the Council recognises any responsibility. If these are too apathetic to stir in the matter, they must put up with the consequences. At present the advantages of membership of the British Medical Association (beyond obtaining the journal) are comparatively few. There is no doubt that the power of the Association in medical politics would be enormous if its Articles were amended in order to enable this power to be used. Another reform in the direction of self-government is that of the admission of Members of the Royal College of Surgeons of England to some control over the affairs of their College—a reform which, I am glad to say, is likely to be before long carried into effect. For the first time in the history of the College the Council has not returned a *non possumus* to the proposals of the Members, but has laid them before a meeting of the Fellows, with the result that, only last week, the latter decided by a large majority "that it is desirable to grant the Members direct representation on the Council." Then, as further evidence of the growing necessity which is felt for mutual support, I may instance the Incorporated Medical Practitioners' Association, to which many of us belong, and on which will ultimately devolve the care of the general interests of the profession if these continue to be ignored by the General Medical Council and the British Medical Association. Then there are the two Defence Unions (which ought now to be amalgamated), the Medical Sickness and Assurance Society, and other central voluntary organisations of medical men for their mutual benefit, which have sprung up within recent years, all showing that the profession has become alive to the advantages of coöperation. After all, however, the third object stated is that on which the others depend, and they can only be accomplished by the formation of local professional unions all over the country, such as have already been established at Portsmouth, Eastbourne, Manchester, and many other places. Let every medical society or branch of the British Medical Association which has not already

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done so adopt an ethical code, and, side by side with its scientific work, let it do all it can to promote the material interests of its members. "United we stand, divided we fall," has been often quoted, but not yet sufficiently laid to heart by most of us. Especially I would appeal to those of our body, consultants and senior practitioners, who are no longer personally interested in many of these questions, to lay aside their Gallio-like attitude, and to bestir themselves for the sake of their less fortunate brethren. This is the truest form of medical benevolence, since prevention is better than cure. It may be, and has been, argued that professional politics are best left alone, that our duty is to treat our patients and to earn our living. There is no doubt that this is our first duty, but to say that it is our whole duty seems to me a supremely selfish view of the matter. Few will deny that we owe something to the nation to which we belong and to the community in which we live; how much more should we be willing to make some sacrifice for the profession which we have practised and which has been the means of whatever success we may have attained in the world.

I must ask your indulgence, gentlemen, for the discursive character of this paper, and I hope that its deficiencies will be amply compensated for by the interest of the ensuing discussion. In conclusion I will also venture to hope that we, as a society, will not content ourselves with mere academical debate on these ethical questions, but will temperately and perseveringly endeavour to enlist the sympathies of every practitioner in this large district in our efforts to promote professional unionism.

An Address
ON
THE NECESSITY OF MEDICAL UNION.

Delivered before the Beckenham Medical Society on Jan. 10th, 1896,

BY FRANK STURGES, L.R.C.P. LOND., L.R.C.S. EDIN.,
PRESIDENT OF THE SOCIETY.

GENTLEMEN,—At this, the first, statutory meeting of the Beckenham Medical Society, when, for the first time, it is my privilege to address you in my new official capacity, you will pardon me if I occupy a few moments on a personal matter. I wish to express how deeply I feel the honour conferred on me by you, my professional colleagues. I am fully aware how undeserved is the compliment. I know my only claim to be that chance has made me the son of one who, in Beckenham, will always be thought of with the respect due to a man who, for thirty years, practised his profession in this place without a stain on his career. Yet, though my claim be so slight, will I endeavour to the utmost of my power to preside over your meetings with equity and judgment; and, by forgetting selfish inclinations and remembering only the common good, I hope to retain at the end of my term of office the kindly feeling that prompted you to place me here. But, conscious as I was and am of the honour, I was soon to learn something of the responsibilities of my position. A few evenings ago our honorary secretary called on me and informed me that it was my obvious and imperative duty to deliver an address at our first meeting. There was no course for me but to accept the inevitable, which I did. But I retired to rest with a heavy weight on my mind, and through the night sleep was denied me, for my brain was racked in search of a subject. In treatment by the antitoxins and other serums I had had no experience. I knew little, save what I had read, of the physiology of the ductless glands and the treatment of disease by animal extracts. If I reviewed the field of modern surgery, its marvellous advances, and still more wondrous possibilities, I should be doing something only a little better than robbing Peter to pay Paul; while, had I chosen some ordinary subject, such as rheumatism, or pneumonia, or typhoid fever, I had the fear of a room filled with empty chairs, and myself, paper in hand, declaiming in sonorous tones to a solitary and sleeping host. And then, as dawn was peeping through the blinds, and noise within and without told me to prepare for another day, I thought of the causes that had resulted in the formation of our society and the objects we had in view, and decided that in them I had plentiful material, for throughout the whole medical world the same causes are acting similarly, and interest in them is well-nigh universal.

During the past year readers of THE LANCET could scarcely fail to note how, week after week, there appeared records of pitched battles between medical officers and their clubs. At first these were in small type paragraphs, and then, as the importance of the contest was recognised and general interest awakened, came special articles in larger type, written by a special commissioner. When their history is written, to Cork will be the honour of having led the van. Then followed Brussels, Portsmouth, Eastbourne, and Bexhill, where fights have been, and are, occurring with gratifying success. Further articles have described and explained without bias the position in Lincoln, Grimsby, York, Hull, Northampton, and Birmingham. One has only to read these articles to see how many evils, and hardships, and wrongs have been steadily accumulating, owing to our generous philanthropy, our lack of foresight and business knowledge, and our desire to help and encourage in every way principles of providence and self-help among the poor; and, as it was easy to see these results and trace their origin, so, too, one important fact stood out in strong relief as a necessity if the wrong is to be righted, and that fact is unity—we must be united. If we can only stand shoulder to shoulder we shall present a front against which all the clubs in Christendom may hurl themselves in vain. For the formation of the army of medical union it is necessary that every locality should take an active part by recruiting its individual units and forming a local company, and Beckenham would be unworthy of her reputation for enlightened and conservative progression if she remained dormant while activity was the order elsewhere. Our energetic secretary, acting as recruiting sergeant, worked to such purpose that in less than a month the Beckenham Medical Society was an accomplished fact; and, being formed, if I read aright, it is not our intention to be a mere figure-head. We intend to be energetic and active in thoroughly inspecting our fortifications and implements of war, and then, when we can realise the strength of our own position as compared with that of many a comrade elsewhere, we shall be ready to send a reinforcement to any part of the empire for the retaking of the citadel we only resigned when we understood not its value, when we knew not our right to its possession.

What, then, are the objects of the society? Briefly, they are as follows:—(1) To encourage social intercourse, whereby there may be established among us feelings of friendship and mutual goodwill; (2) to discuss together professional subjects, whereby we may be further interested in our work, and mutually improved in our working; and (3) for business purposes, with special reference to our work in connexion with friendly societies, clubs, dispensaries, and what are known to us as medical aid societies. The first two speak for themselves, but, lest you should regard them too lightly, I will stay to point out their necessity to our third object. Unless we are good friends we cannot rely on one another, and unless we know one another we cannot be good friends. Unless we prove ourselves capable in our practice, any decided course of action would fail to carry weight in public estimation; and we risk being incapable if, through lack of the stimulus given by necessary discussion, we neglect to keep abreast with general professional progress. But the main question of interest to all of us is contained in our third object—viz., our action with regard to the various benefit clubs and societies. Now, in our dealings with these there are certain main points which we as a profession should keep constantly before us; there are certain conditions it is our duty, individually and collectively, to strive to obtain. The first and most important is the fixing of a wage limit. Our profession have ever proved themselves ready to help the deserving poor; but the time has come for us to put down our foot firmly and refuse to allow those who can well afford a proper fee the benefit of what was never intended for them. This is what the profession in Cork and Brussels have been insisting on. This, likely enough, will ere long be the battle cry all over the country. What this wage-limit is to be must, I fear, always be a local question.

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There would be great advantage, could one be fixed which would be suitable everywhere, as in that case many difficulties would disappear; but conditions of living vary so much in different parts that they must always be allowed to guide the decision. One point is certain, the limit must be one which is considered to be fair by the bulk of the profession of the place. The next point is equally important. We as a profession must resolutely set our faces against any society which includes medical aid as a bait for insurance, burial, or other business, and which is worked by touting and canvassing. Further, we should refuse to be connected with any benefit society formed and worked as a business by individual enterprise or a speculative committee, or in which the medical officers are what is known as "sweated" of some of their legitimate profits. And next we should insist that the profession be properly and adequately represented on the committee of management of every benefit society that claims recognition.

Now let us briefly survey the working of the chief kinds of medical clubs and see how far, or rather how little, they conform to these requirements. And we will begin with what are possibly the least objectionable—viz., the incorporated friendly societies. The least objectionable I have said, and, I might also add, the most powerful. Well, they are constant and continual offenders against the principle of a wage-limit. Their members over and over again can be proved to be men well-to-do, even rich. It is intolerable and even degrading that these should receive medical advice and medicine for the paltry sum of from 2*s.* 6*d.* to 4*s.* per year. There is no medical element in the committee of management, and their medical officers are liable to be called before a number of ignorant and common men, consumed with the idea of their own greatness and the comparative littleness of medicine, there to answer for more or less imaginary errors of omission and commission, and be metaphorically, perhaps even actually, sat upon by men who are incapable of forming any correct estimate of the justice of the complaint on which they presume to pass judgment. No argument can justify such a condition as this. Yet till lately there were advantages which, to the young and struggling, made such an appointment a desirable thing, for the holder might look for his private patients among the families of his club members. Now that is fast becoming a thing of the past, for the women and children have also to be admitted on an equal or smaller scale of remuneration. This has recently happened at Portsmouth and led to a sharp contest, beginning with the resignation of a medical officer, who had the support of the whole of the profession in the town. I wish I could report that no one from outside had applied for the vacant post, but I can tell you that those who did were defeated by a large majority, and the original holder was reinstated on his own terms. Next let me direct your attention to the slate clubs. Slate clubs were originally the creation of the publican, for the purpose of keeping his customers together. Members pay, say, 6*d.* a week, and the publican is the treasurer; he can be trusted with the money, and from self-interest alone is sure to keep a true account. Of the money received all comes back by a division at Christmas after deducting the medical officer's remuneration, which is from 2*s.* 6*d.* to 4*s.* a member per year, and sick pay. Of course, here there is no wage limit; it is to the interest of the proprietor to have among his members men who can spend money and increase his trade; he avoids as far as possible the needy poor, and, under any circumstances, reaps a fine harvest each Christmas, when much of the money divided out comes back to his till. The medical officer has no voice in the selection of members, and indirectly he assumes the position of publican's business assistant. His remuneration is a paltry sum, that he has often to more than spend on necessary medicines. I have said that slate clubs were originally the creation of the publican. More recently they have come into vogue among the organisers and workers of the Established Church and other religious denominations. But they have only been instituted in self-protection and to keep men away from the public-house. They are on the same lines, and are otherwise open to the same objections; but they need hardly concern us for the simple reason that when the public-house slate clubs are demolished there will be no further need for them. In this place I am glad to say we have no example of the benefit society generally called self-supporting, which is the property and means of livelihood of one individual. Those who wish to know of them can find them fully described in the article by the special commissioner of THE LANCET in the issue of Jan. 4th. Here, as the commissioner so well and truly says, the medical man becomes the employé or "wage-slave" of some "captain of industry"; he loses his independence; he has to please his master and not his patients; he is no longer the guardian of the public health, but the promoter of a private business, and must sacrifice everything to make the profits flow into his master's pocket, or lose his place. A most deplorable position. In many places, as at Lincoln, the friendly societies have organised dispensaries where they employ one or more medical men exclusively—i.e., they are debarred from private practice. Besides the absence of the wage limit, which is here a great cause of complaint, it is proved beyond doubt that there is far more work than can by any possibility be properly done. The wealthier and more influential members absorb much more than their legitimate share of the medical officers' time, to the detriment of the poorer ones; and, in addition, the medical man is often "sweated" even of his rightful pay. A slave day and night, without prospect of any improvement in his position, he might well write on his door: "Since entering here I have abandoned hope." There are no doubt other varieties with which I could detain you, were there any need. I will, however, only say a word on the medical aid societies. I think you well know the objections to these. The fact that their medical officer's name is used as as a bait to induce assurance, and that canvassers are employed to tout indiscriminately among the people quite irrespectively of the fact that they are already the patients of some other practitioner in the place, or members of some more legitimate dispensary, has already been debated on at our special meeting. When the Cork trouble first began and the medical men had resigned their clubs an agent of a Friendly Society presented himself and appealed for the assistance of the profession, telling them he was at once to employ eighteen canvassers, and threatening, on their refusal, to import new medical men. At a special meeting called to consider the proposal the men of Cork passed a resolution "denouncing the touting and canvassing so inseparable from the system as calculated to prostitute the practice of medicine and bedaub the escutcheon of an honourable profession." And with that denunciation few in their hearts will be found to disagree.

I have put before you—and I believe without exaggeration—a deplorable condition of things, and one that cries out loudly for remedy. It is a fact that in many large towns of England—as, for example, Lincoln and Northampton—the proportion of people receiving medical attendance from some such society as those I have analysed is more than one-half of the whole population, and I have no reason to disbelieve that the same proportion holds good over the whole country. Our profession is ever and continually increasing, and we have a right to expect to live by it. But if we remain much longer inactive even that will be barely possible. Even now, however, we have the remedy in our hands. Let there be formed in every place, as we have formed here, a medical union, so that, joining hands, we can reach from one end of the kingdom to the other. Then let there be started in every town and village a provident dispensary with a rightful place on the staff for every medical man who so wishes, and with every medical man on the committee of management. That committee may be increased by the addition to it of deputies elected from the friendly societies and clubs. Let a wage limit be fixed according to the peculiar circumstances of each locality; and let the medical man selected by each proposed member have the power of asking the committee to refuse anyone who for this reason or that may be deemed unfit. Also let that be the only medical aid society in the place. This has been done at Eastbourne and Bexhill already with success, and if we stand together it may be done everywhere. The friendly societies, the assurance societies, the burial societies, and the clubs can still go on. They will not be interfered with in their legitimate and useful work, but only with regard to their medical aid. And even there they can still be adequately represented, for there can be a place on the committee for them all. So the only ones to suffer will be those having no right to enjoy. Those entitled to aid will, indeed, be far better served, for there will be established an honourable rivalry among the medical staff, from any of whom they have a right to select those who can serve them best. Here in Beckenham we have already got our medical union and our dispensary, and if we all strive for it the rest will come. We have only to make up our

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minds as to our course of action and then explain our position fairly to the people. Avoid the committees—probably they are composed of those who are not entitled to dispensary aid; or, if it be necessary to appeal first to them, let us appeal from them to the constituencies, in whose judgment I have confidence, for of their goodwill to our profession I can have no doubt. Then, even if at first they fail to see the benefit and are not desirous of the change, remember that, united, we have a force at our back which will greatly aid reason. And should we have to use our force to aid their reason we must look out for deserters—not in our own ranks, I do not fear that—but deserters from outside. They have had deserters at Brussels, and there boycotting was found to be a weapon too powerful to resist; and so we shall find it here and everywhere. Desertions can only be by the few, who hope to gain—no matter how dishonourably—by the worthy action of their more worthy brethren; and if by chance our own power be not sufficient—and I speak now of united action all over the country—then, knowing our enormous strength—knowing, too, the justice of what we have done—we can appeal with a force well-nigh irresistible to the General Medical Council, and not ask, but insist, that those who should be our brethren, but who are our enemies, should be removed from the scroll of an honourable, an upright, and a charitable profession.

ON THE TREATMENT OF THE HÆMORRHAGES AND URTICARIAS WHICH ARE ASSOCIATED WITH DEFICIENT BLOOD COAGULABILITY.

BY A. E. WRIGHT, M.D. DUBL.,
PROFESSOR OF PATHOLOGY, ARMY MEDICAL SCHOOL, NETLEY.

I HAVE in previous communications [1] directed attention to the fact that the coagulability of the blood can be increased (1) by calcium salts, (2) by carbonic acid, and (3) by solutions of cell nucleo-albumins (Wooldridge's tissue fibrinogens). I propose in the present communication first to amplify certain statements I have made upon these subjects; secondly, to direct attention to a simple method of administering carbonic acid; and, thirdly, to suggest that calcium chloride may prove useful in the treatment of urticaria, wherever the urticarious eruption is associated with a condition of diminished blood coagulability.

The following cases may be of interest as showing the increase of blood coagulability which can be obtained in hæmophilia by the internal administration of calcium chloride:—

Patient.	Age.	Date of antecedent blood examination.	Coagulation time in standard tube (temp. 18·5°C.).	Amount of $CaCl_2$ administered.	Date of subsequent blood examination.	Coagulation time in standard tube (temp. 18·5° C.).
Boy (very severe hæmophilia)	9 years	April 13th, 1894	Exceeds 54 minutes	Two 2 gramme doses	April 14th, 1894	25 minutes.
				Two 2 gramme doses	April 15th, 1894	13½ minutes.
		Sept. 28th, 1894	14 minutes	Two 0·6 gramme doses	Sept. 29th, 1894	6¾ minutes.
Brother of above (less severe hæmophilia)	7 years	April 13th, 1894	7 minutes	Two 2 gramme doses	April 14th, 1894	4 minutes.
		Sept. 28th, 1894	9½ minutes	One 0·6 gramme dose	Sept. 29th, 1894	5½ minutes.

It is to be noted that the augmentation of coagulability which is here recorded was not in either case a permanent augmentation of coagulability. In these, as in all other cases of hæmophilia which have come under my observation, a continued administration of twenty- to thirty-grain doses of calcium chloride resulted in a diminution of coagulability below the original norm. There is evidently in the hæmophiliac, just as there is in the normal, patient a maximum of lime addition which ought not to be exceeded. For the purposes of the arrest of hæmorrhage this subsequent diminution of coagulability may, however, generally be left out of account, for when the maximum of coagulability is reached hæmorrhage will generally be arrested by the sealing of the wound by clot. I have seen this result follow upon the internal administration of calcium chloride in several cases of hæmophiliac hæmorrhage. I am also indebted to Dr. Newcombe of Gateshead-on-Tyne, to Mr. Horace Potts, to Dr. A. H. Jones of Northampton, and to Surgeon-Lieutenant J. N. Macleod, I.M.S., for notes of cases in which hæmophiliac hæmorrhage was arrested by the internal administration of calcium chloride. The less soluble calcium salts may also be usefully applied in the form of local applications to the bleeding surfaces. I have obtained very satisfactory results from the application of finely powdered chalk mixed into a paste with a ½ per cent. solution of calcium chloride. Dr. N. F. Surveyor had previously been good enough to send me the notes of a case under his care in which an arrest of severe hæmophiliac bleeding from the gums was obtained by an application of calcium phosphate. In Dr. Surveyor's case escharotic styptics had previously been applied with unsatisfactory results.

Hypodermic administration of calcium chloride is a method which I have forborne to apply upon man, as I have seen extensive (apparently aseptic) sloughing to result from a subcutaneous inoculation of calcium chloride upon a dog. I have also in a hæmophiliac boy seen scars of extensive sloughing which had been produced by a hypodermic injection of calcium chloride employed for the arrest of hæmorrhage.

Before dismissing the topic of the effect of calcium salts in hæmophilia it may not be out of place to put upon record the fact that I have been able to convince myself of the truth of Dr. Wickham Legg's statement that hæmophiliac children are not infrequently addicted to eating plaster, mortar, and similar substances. For instance, the sole surviving maternal uncle of the two hæmophiliac boys who have already been dealt with in this paper spontaneously volunteered the statement that he had in his boyhood a constant craving for lime and plaster. This man is the subject of moderate hæmophilia, and has an ankylosed joint. Again, I was informed that a maternal first cousin of these same boys "could not be kept off from eating plaster." This boy, a child aged four years, who is the subject of severe hæmophilia (blood coagulation—time twenty-nine minutes), used to pick out the mortar from between the bricks when he was sent out of doors to prevent his eating plaster off the wall. I was shown a large portion of wall denuded of plaster as evidence of the child's plaster-eating propensities, and I was informed that his craving for plaster was most marked before his hæmorrhagic attacks.

I will now pass on to consider the other means which are at our disposal for combating hæmophiliac hæmorrhage. The internal and external administration of calcium salts does not always result in the arrest of hæmorrhage. Even so large an increase of blood coagulability as that which I have recorded in the case of the first boy (vide Table infra), would not necessarily have resulted in an arrest of hæmorrhage. A blood coagulability of 6¾ minutes [2] is no bar to the occurrence of very severe capillary hæmorrhages. In cases of severe hæmorrhage it will, therefore, always be judicious to supplement the treatment by calcium salts by the inhalation of carbonic acid. I have employed this treatment upon two occasions in the treatment of hæmophiliac hæmorrhage. Upon both occasions I obtained a comparatively prompt cessation of hæmorrhage. I have also obtained very satisfactory results from the application of the method

[1] (1) Brit. Med. Jour., Dec. 19th, 1891; (2) Proceedings of the Royal Society, vol lv., 1894; and (3) Brit. Med. Jour., July 14th, 1894.

[2] Normal blood coagulates in from two to four minutes in the standard capillary tube at a temperature of half blood heat. (18·5 C.) The apparatus for blood coagulability estimations can be obtained from Mr. A. E. Dean, 73, Hatton-garden, London, E.C.

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in the case of a patient[3] in the Royal Victoria Hospital, Netley, whose blood coagulability was seriously diminished by prolonged tropical fever, and who was reduced to an extremely precarious condition by perpetually recurring epistaxis. In the case of this patient all the ordinary methods of arresting hæmorrhage had been resorted to unavailingly. He had been treated successively with ferric chloride, with turpentine, with calcium chloride, with hypodermic injections of ergot, with alum insufflations, and with ice applications. His coagulation period varied during the whole of this period of treatment between eight and four and a half minutes. The number of his white blood corpuscles, though increased under the influence of the turpentine, often fell below 1000 per cubic millimetre. Under these circumstances administrations of carbonic acid were resorted to whenever the epistaxis recurred. The administration of the gas was invariably followed by a prompt arrest of hæmorrhage. The method of administration which was adopted consisted in leading a stream of carbonic acid into the nose through an india-rubber tube passed up well into the nostril. The carbonic acid was supplied from an ordinary Kipp's gasogene, such as can be purchased at any chemical apparatus dealer's for a few shillings. The patient was directed to hold his head forward in order that the blood should run out of the nostril along the india-rubber tube instead of trickling down the posterior nares. The coagulative effect of the carbonic acid was gauged by noting the rate at which the blood dripped from the tube. On several occasions this treatment was supplemented by a previous syringing out of the nostrils with ½ per cent. calcium chloride solution. In the case of epistaxis it is not necessary that the patient should inhale the gas: the local effect of the gas at the seat of hæmorrhage will suffice. The same statement would hold good of a possible treatment of metrorrhagia by an administration of carbonic acid. It is, however, necessary to insist upon the fact that an excess of carbonic acid must be avoided if the method is to be effectual. My experiments upon animals[4] have shown that the accelerating influence of carbonic acid gas upon blood coagulation is manifested only in presence of a sufficiency of oxygen. When this fact has been realised it becomes evident that the inhalation of carbonic acid gas would be applicable to the treatment of hæmoptysis. It is not necessary that the patient should be in any degree asphyxiated. Asphyxiation would militate against the efficacy of the method. The stream of gas should first be turned on very gently so as to induce anæsthesia of the mucous membranes. As soon as this has been effected very large quantities of the gas can be tolerated without discomfort. I have not had an opportunity of testing the method in a case of hæmoptysis; it would appear, however, to be deserving of a trial, for it is a method which might result in an immediate arrest of hæmorrhage. If the administration of carbonic acid were not effectual by itself, its coagulative effect might be enhanced by a previous administration of calcium chloride. It might, for instance, be applied an hour after the administration of thirty grains of calcium chloride by the mouth.

Finally, before dismissing the subject of the arrest of hæmorrhage, it may be well to advert to the employment of solutions of cell nucleo-albumins as local applications to bleeding surfaces. The employment of physiological styptics of this kind would appear to be especially indicated in the treatment of hæmophilia, for I have convinced myself by a somewhat extensive series of observations on the blood of hæmophiliac families that the blood of hæmophiliac patients and of their female ascendants is characterised by a notable paucity of white blood corpuscles, and especially by a relative paucity of the polynuclear white blood corpuscles. In other words, hæmophiliac blood is deficient in the cellular elements which contribute the nucleo-albuminous element to the formation of fibrin. An addition of nucleo-albumins is, therefore, essential to the formation of a sound clot. The practitioner can always readily obtain a supply of these by mincing up a thymus gland, a testicle, or (if these cannot be obtained) a piece of gastric mucous membrane, in a little 1 in 500 solution of carbonate, and by filtering off the infusion, either immediately or after the lapse of a few minutes, through a piece of calico. I have employed such solutions of cell nucleo-albumins in two cases of hæmophiliac hæmorrhage; in both cases the hæmorrhage was taking place from cuts upon the hand. The result of the application of this physiological styptic was in each case the formation of an enormous mass of clot round the wound. In one of the cases bleeding continued for days under the clot (this was no doubt due to some dislodgment of the clot), and the skin became extensively macerated. I had in this case to clear away the clots and to arrest the hæmorrhage by inhalations of carbonic acid combined with an application of lime salts. It is, perhaps, not too much to say that with these three methods of arresting hæmorrhage at our disposal very few, if any, cases of hæmophilia ought to be allowed to succumb to their capillary hæmorrhages.

I have now to deal very shortly with the question of the treatment of urticarias which are associated with deficient blood coagulability. It is probable that most urticarias fall under this category. Instances in point are the urticarias which result from eating unripe or acid fruit. These, as I have elsewhere pointed out,[5] may almost certainly be attributed to a diminution of blood coagulability due to the abstraction of calcium salts from the blood by the vegetable acids. Again, the urticaria which supervenes upon the eating of certain molluscs and crustaceans is if one may judge by the analogy of what happens in animals, associated with a diminution of blood coagulability. There is yet another example of the association of diminished blood coagulability with urticaria in the case of the urticarious eruption which, as Shore first showed, occasionally occurs in dogs whose blood has been deprived of its coagulability by an injection of peptone. I was led by the analogy of these facts to inquire whether the urticaria which frequently supervenes upon an injection of antidiphtheritic serum is also associated with a diminished blood coagulability. In the few cases which have come under my personal observation I have found that the blood coagulability is really notably diminished. A practical point in the treatment of urticaria would appear to result from these considerations. Whenever we are dealing with an urticaria which is associated with a diminished blood coagulability any method of treatment which will augment blood coagulability will, in all probability, exert a favourable influence upon the course of the eruption. Acting upon this assumption, I have treated the few cases of post-antitoxin urticaria which have come under my notice with 15 to 30-grain doses of calcium chloride. This treatment was apparently very successful. In one typical instance the coagulation time of the patient who was suffering from acute urticaria stood at eight minutes. Within a few hours after the administration of the calcium chloride it had come down to four minutes, and the rash had entirely disappeared. This method of treatment would appear, therefore, to deserve investigation at the hands of those who have frequent opportunities of observing this form and other forms of urticaria.[6] The treatment of urticaria by carbonic acid inhalations would hardly appear to be a practical method. Its results would, however, have a certain theoretical interest, as it seems probable that the nocturnal supervention of urticaria, like the nocturnal supervention or aggravation of hæmophiliac hæmorrhages, must have some relation to the diminished nocturnal output of carbonic acid.

In all cases of urticaria associated with diminished blood coagulability, just as in all cases of hæmophiliac bleeding, it is of the utmost importance to avoid diminishing the blood coagulability by the administration of wine. Wines, especially the more acid ones, diminish blood coagulability by virtue both of the alcohol and the free citric and tartaric acids they contain, which abstract lime salts from the blood. In a case which came under my notice incidentally even the smallest quantity of any wine, except port wine, produced a slight œdema of the fingers and an urticarious eruption. The urticaria in this case was a mere unregarded incident in a case of incipient tuberculosis which was being treated with creasote. If, however, the urticaria was really referable to a deficiency of lime salts in the blood, it was a therapeutic indication of the utmost importance, for the supervention of the urticaria would be the equivalent of a call for lime. Now, a demand for lime on the part of a tuberculous organism is a demand which ought to be carefully attended to, for Metchnikoff has shown

[3] I am indebted to my friend, Surgeon-Colonel E. Fairland, for the opportunity of studying this case.

[4] Proceedings of the Royal Society, loc. cit.

[5] Brit Med. Jour., July 14th, 1894.

[6] I have elsewhere (Brit. Med. Jour., Oct. 12th, 1895) pointed out that post-antitoxin urticarias appear to be much rarer after the injection of antitoxic plasma than after the injection of antitoxic serum.

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that one of the methods of defence which is employed by the organism is the encapsulation of the intracellular tubercle bacilli in capsules of lime.

Netley.

A CASE OF VARICOSE ANEURYSM OF THE ASCENDING AORTA.

BY J. MICHELL CLARKE, M.A., M.D. CANTAB.,

PHYSICIAN TO THE GENERAL HOSPITAL, AND LECTURER ON PRACTICAL PHYSIOLOGY, UNIVERSITY COLLEGE, BRISTOL.

THE patient, aged sixty, had always done a great deal of hard work and been temperate. He had never had syphilis, and had always enjoyed very good health until the winter of 1894–95, when he was laid up for five months with bronchitis. Since then he had suffered from shortness of breath, but not sufficiently to incapacitate him from work. This was his only illness, except that he had broken his left arm nine years ago. On Sept. 17th, 1895, whilst at work, he suddenly found great difficulty in breathing; his eyelids swelled, and his face became bloated, flushed, and livid in colour, as did also his ears. He had no pain. The attack passed off on his lying down, but recurred several times during the day, passing off whenever he rested; however, he was able to finish his day's work. Next day his face was swollen and livid. He had to relinquish work at 11.30 A.M. on account of shortness of breath, and had done no work since. On the 22nd he noticed, on getting up in the morning, that his right arm and hand were swollen. This swelling went on increasing until his admission on Sept. 27th. The dilatation of the veins over the lower part of the chest he had first observed about a month previously. With the exception of shortness of breath and a feeling of tightness in the swollen parts he felt well. On his admission the patient's face was flushed, cyanosed, and swollen, the eyelids being especially puffy. The neck was swollen, and the veins appeared to be very full of blood and prominent, their coats feeling hard to the touch, and there was no pulsation in them. Over the right side of the chest and back there was marked œdema, pitting on pressure, as low as the sixth space. The right arm and hand were very much swollen and œdematous, and the skin was stretched and tense. The right arm measured 15½ in. and the left 12½ in., and the upper part of the right forearm 13½ in. and of the left 11¼ in. in circumference. The chest was well formed, but expanded as a whole. Over the lower part of the chest there were several patches of dilated small veins of a bluish colour. A broad band of dilated veins extended from the left side of the lower angle of the right scapula along the fifth intercostal space over the middle line across the ensiform cartilage, and along the left sixth intercostal space as far as the mid-axillary line. Behind, a broad patch of bluish dilated veins extended across the back below the lower angles of the scapulæ, the centre of the patch being about the twelfth dorsal spine. The lungs were healthy, except that the breath sounds were feeble. The apex-beat of the heart was diffused in the fifth and sixth spaces, the maximum being in the fifth space, half an inch outside the nipple line; dulness began above at the third rib, where it joined an area of dulness to be described later, extended to the apex-beat, and to the right half an inch over the right border of the sternum. The heart beats were irregular. At the base a loud rumbling systolic murmur ending in a squeaking sound was heard, followed by a long diastolic murmur, musical or whistling in character. No normal second sound was heard, and the first was very faint. The same murmurs were heard at the apex, but not so loudly. The murmurs at the base were very loud at the systole and then gradually diminished. It was doubtful whether the murmur was not continuous; as a rule it seemed to run through the diastole, to end just before the first sound, but occasionally ran right up to it, and was then continuous. The murmurs were faintly heard in the back. There was dulness over the sternum from its upper border to the level of the lower border of the third costal cartilages, roughly square-shaped in outline, and extending at the level of the second cartilage 2¼ in. to the right and 1 in. to the left from the borders of the sternum. The upper limit of this area extended from a point on the left first rib 1¼ in. to the left of the left sternal border to a point 2½ in. to the right of the right sternal border on the first rib, and the lower parallel to it from the junction of the left third costal cartilage with the sternum to a point on the third rib 2¼ in. distant from the right sternal border. In the back, on the right side, there was deficient resonance as far as the level of the fourth spine. The murmurs were faintly heard over the dull area in front, the breath-sounds being feeble and distant. There was an entire absence of thrill or pulsation over this area. The abdominal viscera were normal. The urine contained no albumin or sugar. The left pulse was more plainly felt than the right, probably due to the œdematous condition of the right upper extremity. There was no laryngeal paralysis or tracheal tugging. The right pupil was a trifle larger than the left. There was no cough. The legs and feet were not swollen, the œdema being confined to the parts mentioned above. No enlarged glands were detected anywhere. Rest in bed relieved the dyspnœa, except that he could not lie down comfortably. The cyanosis passed away except for some lividity of the lips, and the swelling disappeared from the face and neck, and mostly from the chest, after he had been in hospital for two days, but the swelling of the right arm and forearm remained unchanged or slightly increased. He felt well, complained of no pain, and was anxious to sit up. The symptoms and physical signs remained unchanged until Oct. 17th, when he complained of a choking feeling in his throat and increased difficulty of breathing and lost his voice. His neck and face again became much swollen. He was too weak and ill to be much examined, but there seemed to be no decided change in the physical signs. He died suddenly during the night.

Necropsy.—A noticeable feature was the very dark colour of all the organs and of the contained blood. An aneurysm the size of a large orange occupied the ascending aorta; the transverse and descending portions of the aorta were somewhat dilated, and its lining was rough and calcareous. The aneurysm pressed slightly upon the œsophagus, but not upon the recurrent laryngeal nerve. The posterior arytenoid muscles were healthy. The superior vena cava was adherent to and compressed by the aneurysm, and about one inch and a half above the termination of the vein in the right auricle there was a communication between the aneurysm and the superior vena cava by an irregular opening the size of a shilling, with sharp, jagged edges. The vena cava, though compressed, remained open above and below the communication with the aorta, and was free from clot. The right innominate vein was obstructed by a firm, white, ante-mortem thrombus, firmly adherent to its walls; the left innominate vein was empty and dilated; the left jugular contained a little fresh clot. The heart was large, its cavities containing a little clot. The left ventricle was somewhat hypertrophied. The aortic valves were thickened and a little atheromatous, but held water; the other valves were healthy. A tendinous band passed across the left ventricle from one of the papillary muscles to the opposite wall. The right auricle was fully of normal size, its appendix being large and the opening of the inferior vena cava normal. The pulmonary artery was slightly dilated and adherent to the aneurysm. Except that the lungs were deeply congested, there was nothing to remark about the other viscera. Permission to examine the brain was not obtained.

Remarks.—The symptoms and physical signs of the patient on admission obviously pointed to pressure upon the superior vena cava from some cause, and the œdema of the chest-wall and dilated veins over the lower part of the chest indicated obstruction of the vessel below the entrance of the azygos vein. The suddenness of the onset suggested the presence of an aortic aneurysm which had opened into the superior vena cava. This sudden onset is, as Pepper and Griffith show in their excellent paper on this subject,[1] a valuable diagnostic sign. In my case the opening of the aneurysm into the vena cava probably took place on Sept. 17th, the date of onset of serious symptoms. No doubt the aneurysm had been in existence some time, but had not betrayed its presence by any symptoms, as it did not at first press upon any important structure. The attack of bronchitis during the previous winter may have caused growth in size of the aneurysm by frequently repeated temporary increase of arterial tension due to attacks of cough. As the patient had persistent shortness of breath after this attack of bronchitis, and had noticed the dilated veins on the lower part of his chest for at least one month before

[1] International Journal of the Medical Sciences, vol. ii., 1890, p. 329.

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Sept. 17th, the vein must have been pressed upon for at least this time. The absence of swelling of the left side of the chest and left upper extremity was probably due to the obstruction in the vein being very gradually established, thus giving time for the establishment of a collateral circulation, whilst the complete thrombosis of the right innominate vein would account for the persistent swelling of the right upper extremity. The murmurs, from their peculiar characters, strongly suggested varicose aneurysm, but they did not present the continuous buzzing or humming noise that I have heard in another case of this kind. Sometimes they appeared to be continuous during the diastole, at others they died away towards the end of diastole, but even then the remarkable whistling and squeaking sounds were unlike those heard in an ordinary case of double basic murmur. The complete absence of pulsation, of thrill, and of loud conduction of heart sounds over the dull area was difficult to account for clinically on the supposition of varicose aneurysm, for with an aneurysm near enough to the surface to present such a large area of dulness the presence of well-marked pulsation was to be expected. On the whole, therefore, though the diagnosis of varicose aneurysm seemed to be most probable, that of mediastinal new growth could not be absolutely excluded.

Clifton, Bristol.

A METHOD OF EXAMINING CLUB-FEET.

BY A. H. TUBBY, M.S. LOND., F.R.C.S. ENG.,

ASSISTANT SURGEON TO, AND IN CHARGE OF, THE ORTHOPÆDIC DEPARTMENT, WESTMINSTER HOSPITAL; SURGEON TO OUT-PATIENTS, EVELINA HOSPITAL FOR SICK CHILDREN; SURGEON TO THE NATIONAL ORTHOPÆDIC HOSPITAL.

IT is necessary, before thinking of treatment, not only to ascertain which form of club-foot is before one, but also to be precise as to the cause. To facilitate this, it has been my endeavour to draw out a plan for examination and to give illustrations in point as far as possible. The various steps of the examination are: (1) The history; (2) the gait on entering the room; (3) the position of the foot and limb on standing and sitting; (4) an outline or impression of the sole of the foot; (5) general examination of the affected limb or limbs as to shape, size, muscular development, diminished or excessive mobility of the joints, temperature, the condition of the skin as to colour, integrity, and the presence of corns or thickened skin over the heels and beneath the balls of the toes (the boots should also be looked at, and any unequal wear at one or more spots noted); (6) the passive movements which may be effected by the surgeon, and the directions from which resistance is felt; (7) localisation of the resistant structures; (8) localisation of contracted or paralysed muscles (this is effected by touch and by movement on the part of the patient); (9) electrical reactions; and (10) signs of abnormal and arrested development, especially of bones. To proceed to details.

1. *The history.*—The first question asked is, When was the deformity noticed? Of course in congenital cases, if the deformity is at all marked, it is seen immediately after birth. In slight cases difficulty may arise. Mr. Reeves[1] says, regarding the normal form of the fœtal foot: "In it the plantar arch is but little formed, the sole of the foot is turned in, and the anterior part slightly adducted, but the peronei are capable of turning the sole outwards. To distinguish the former natural position from slight cases of club-foot the infant should be placed near the fire; if the foot be normal, the child will flex the thighs upon the abdomen, the legs upon the thighs, and turn the feet out, but in equino-varus it will not be able to evert the foot." Congenital clubfoot is as often double as single; paralytic club-foot is more often single. In the latter case the information will be often volunteered that the child was quite well until about eighteen months old, then it was feverish and had a convulsion, and next morning it was unable to move the limb. In spastic cases, which are often bilateral, some history of asphyxia at birth, or of symptoms of meningitis, or an account of a fall, blow, or sudden shock, is forthcoming. Inquiry should be made as to rheumatism, and, if an adult, as to gout in the family, and whether the child has recently suffered from exanthemata. The mode of delivery is often of interest; many congenital cases have been breech presentations or one of twins. Some cases of congenital club-foot are distinctly hereditary.

2. *The gait on entering the room.*—The tip-toe forward gait of spastic cases is very characteristic. In infantile paralysis, if the case be one of equinus, the toes are dragged and the heel is raised; if the affection be calcaneus, the heel is brought to the ground with much emphasis, while the front part of the foot flaps somewhat as the patient advances to take the next step. Some shortening is frequently present in paralytic cases, and evidence of this is seen in the halting gait and the drooping of one side of the pelvis and one shoulder. In congenital club-foot it should be noted which part of the foot comes first into contact with the floor. In equino-varus considerable turning in of the foot and raising of the heel will be seen. Weakness of one leg, with the arm held rigid and the forearm pronated and flexed, are suggestive of infantile hemiplegia.

3. *The position of the foot and limb on standing and sitting.*—It is essential that the patient be examined in both positions, otherwise errors may be made. For example, in right-angled contraction of the tendo Achillis, when the patient is sitting, he can bring the heel to the ground because the calf muscles are relaxed; but on standing, with the leg fully extended and the calf muscles tense, the heel may be an inch or more off the floor. Again, cases which appear to be equino-valgus, when the patient is standing, resolve themselves into equinus if the sitting position be adopted and the leg placed at right angles—for the reason that, in order to bring the heel to the ground in walking with a somewhat short tendo Achillis, the foot is abducted or adducted at the ankle, and the shortness of the tendon is thus compensated. Cases of varus should be examined with the patella to the front and the true position of the foot thus ascertained.

4. *An outline or impression of the sole of the foot.*—This may be obtained in several ways—e.g., by applying printer's or ordinary ink to the sole and directing the patient to place his foot firmly on a sheet of white paper, or by applying smoke to a sheet of glass and telling the patient to stand on it. By these means an impression is obtained. Or, if an outline only be desired, the sole of the foot may be well moistened with water, and the foot placed firmly on a sheet of brown paper. The outline may be rapidly put in with ink, before the impression on the brown paper dries. It is valuable, in cases of arcuatus and flat-foot, to obtain an impression or outline at the commencement and at the end of treatment.

5. *General examination of the affected limb.*—The shape of the limb, especially as to muscular wasting, and its development as compared with its fellow, should be noticed. Thus in congenital and spastic cases the swelling of the calf is at a higher level than in the healthy limb. In infantile paralysis wasting of the anterior or posterior muscles will readily be seen—so, too, in the late stages of spastic cases—while the enormous calves of pseudo-hypertrophic muscular paralysis will not escape attention. The bones are often felt to be of less thickness, and not only the leg, but also the foot, is shorter than normal. An excessive mobility at the knee-joint, especially if rotation is free in the extended position, is a factor of importance in the prognosis and treatment of club-foot, both of the congenital and paralytic varieties. Much of the inversion in talipes equino-varus is due to it, and it needs methodical correction. In infantile paralysis a flail-like condition of one or more of the joints is present, and the knee may be hyper-extended. The temperature of the surface of the limb and the colour of the skin, often dusky-red or blue, with the presence of chilblains and other signs of imperfect circulation, are characteristic of anterior poliomyelitis and of some congenital cases in which spina bifida is present. The presence of corns and false bursæ indicates that undue pressure exists at the spots where they are found. Thus in right-angled contraction of the tendo Achillis a row of corns will be found beneath the heads of the metatarsal bones, and the same condition is seen in talipes arcuatus and plantaris. In old-standing cases of equinus the heel is feebly developed and small, and the skin over it quite thin, thus showing that it has not at any time come into contact with the ground. It is well to look at the boots to see if they are worn unequally—e.g., in the cases of so-called weak ankles.

6. *The passive movements which may be effected by the surgeon.*—In most cases of clubfoot the nature of the

[1] Practical Orthopædics, p. 152.

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deformity is evident, but it will happen that in slight cases it is difficult to decide by merely looking at the foot whether adduction or abduction is too free, and similarly with extension and flexion. The foot should then be moved passively in these directions, and it should be noticed in which of the positions it can be placed with the greatest ease. These movements should be carried out with the child both standing and sitting. By means of the movements a general idea of the condition of the structures is gained. Thus the "set" state of resistant and rigid clubfoot can be felt.

7. *Localisation of the resistant structures.*—The heads of the metatarsal bones being drawn away as far as possible from the heel, any bands of plantar fascia standing unduly in relief may be seen and felt. If any doubt exists, the position of the band may be localised accurately by pressing gently the nail of the forefinger on it, and its tension thus quickly ascertained. The same method applies to the tendons.

8. *Localisation of contracted or paralysed muscles.*—Their identity may roughly be determined by sight and touch, but in cases of infantile paralysis and in spastic and congenital cases it is advisable to put the patient through a kind of drill. Thus if equinus be present it is necessary to ascertain whether any, and if so what, amount of power remains in the extensor muscles. The patient, if sitting, should be told to try to raise the toes towards the surgeon's finger, placed at one or two inches above them. Then the dorsal flexion of the great toe may be tried in the same way in order to see whether the extensor proprius pollicis has escaped or not. Similarly in calcaneus an attempt may be made to touch the surgeon's fingers held an inch or two below the toes. To estimate the power of abduction and adduction in the foot the finger should be placed one or two inches to the outside or inside of the foot. In paralytic cases it is essential to know whether any paralysis of the quadriceps extensor be present. It is not then sufficient for the surgeon to hold his hand at the level of the patient's knee and tell him to touch the hand with the toes. With one hand holding the condyles of the femur the patient's thigh should be fixed, while the other hand should be held out for the patient to touch with his toes. If there be some paralysis of the quadriceps extensor, and the femur be not fixed when the patient is told to extend the leg, it will be noticed that he first flexes at the hip and raises the thigh off the chair, thus getting a start, so to speak, and then extension of the leg is made; so that this flexion at the hip tends to mark slight weakness of the quadriceps extensor and should not be permitted in testing the power of this muscle.

9. *Electrical reactions.*—In cases of spastic paralysis the affected muscles react to the constant current with less current than normally, while in paralytic cases, not only is more current required than normally to obtain a contraction from a given muscle, but if the muscle be hopelessly damaged no reaction at all is obtained. In those muscles which are less affected the reaction of degeneration is seen, and the muscle responds for a time more readily to the galvanic current, while stimulation of the nerve gives little or no response, and both the muscle and the nerve fail to respond to the faradaic current. Then, too, in the reaction of degeneration, instead of the order of ease of contraction being K.C.C., A.C.C., A.O.C., K.O.C., A.C.C. may equal K.C.C., or A.C.C. may exceed K.C.C., and K.O.C. may exceed A.O.C.

10. *Signs of abnormal or arrested deve'opment of the bones.*—In the case of congenital clubfoot the direction of the head of the astragalus and the presence of excessive inward rotation of the bones of the leg are points of importance. Absence of the fibula or tibia, or parts of those bones, and a rudimentary patella, are occasional accompaniments. In paralytic feet excessive prominence of the cuboid in equino-varus is a feature of importance in estimating the time to be occupied in treatment.

Weymouth-street, W.

THE CIVIL RIGHTS DEFENCE COMMITTEE.—From the minutes of the last meeting of this energetic body we learn with pleasure that matters are progressing. Our space does not permit us to publish these minutes in full, but we trust that our readers, who must be quite conversant with Mr. Anderson's bitter and extraordinary experiences, will communicate with the committee at 5, Mitre-court, Temple, and learn from the literature there to be obtained how vitally most of the points which are contended for therein affect the profession.

NOTES ON TWO CASES OF TETANUS TREATED WITH TETANUS ANTITOXIN.[1]

BY DUNCAN MACARTNEY, M.D. GLASG.,
SURGEON TO THE DISPENSARY OF THE GLASGOW WESTERN INFIRMARY.

CASE 1.—A married woman aged about fifty, of a very obese habit, had an epitheliomatous growth removed from the left vulva on Aug. 27th, 1895. Everything went well till the evening of Sept. 4th (the eighth day after the operation), when she experienced some stiffness about the jaws. On the morning of the 5th she was unable to open them, and had besides intermittent pain. Her temperature and pulse were normal, and she felt well in every other way. A mixture of bromide of potassium and hydrate of chloral was ordered. The condition remained unaltered till the 8th, when her neck became stiff. On the 10th there were suspicions of spasms commencing in the upper part of the abdominal wall and passing up to the jaws, which then became firmly clenched together. During this time she could swallow, and was fed with milk. The pupils were contracted from the commencement of the symptoms. On the 11th her temperature rose to 100° F. (the first elevation noticed), and the pulse-rate was 112. Undoubted opisthotonos was now present, the spasms coming on at intervals of ten to fifteen minutes; they were, however, slight in degree. The previous night was the first on which she had lost sleep. She was removed to the Western Infirmary at 6.30 P.M., and stood the removal well. At 9 P.M. the temperature was 100° and the pulse-rate 108, with spasms every five minutes. The minimum dose of tetanus antitoxin (obtained from the British Institute of Preventive Medicine) was injected into four different places on the abdominal wall. The injection had no effect on the frequency or severity of the spasms, though the temperature fell to normal. The condition remained the same till 10 P.M. (one hour after injection), when the patient had a spasm which lasted two minutes, during which the face and hands were very cyanotic. She then became extremely pale and immediately died.

CASE 2.—A boy aged five and a half years was admitted to the Western Infirmary on Oct. 1st, 1895, suffering from injury sustained to his leg from a cart-wheel passing along the outer aspect of the ankle region. The tissues were severely bruised, though no bones were fractured. The part was thoroughly cleansed and dressed with sublimate gauze and a half box-splint applied. In a few days the part was seen to be bruised past recovery, and a circular slough between two and three inches in diameter had formed. Nothing unusual was noticed till 7 A.M. of the 8th (seven days after receipt of the injury), when the patient was seized with a violent spasm almost epileptic in its suddenness of onset, in which opisthotonos, firm contraction of the muscles of the neck, and the risus sardonicus were well marked. During the morning visit ten grains of chloral were administered, but only a small quantity was swallowed; then five grains of chloral were given by the rectum, which was retained. At 1 P.M. the temperature was 98·8° F., the pulse-rate 100, and the respiration 24. At 4.15 P.M. there was another spasm—slight, however—followed by one at 4.35 P.M. At 5.15 P.M. a severe spasm came on, at the beginning of which he gave a slight cry; opisthotonos and risus sardonicus were distinct. At 6 P.M. the patient was put under chloroform, and I dissected away the slough and the red marginal line round it, going down to the bone and tendon and clearing away every trace of diseased tissue that I could see. Before the effects of the chloroform had passed away I injected into the abdominal wall a fifth of the recommended dose (for adults) of the tetanus antitoxine solution. This was at 6.35 P.M. At 7.10 P.M. another spasm occurred. Within the next twenty minutes several short attacks came on, in two of which he turned completely round on his face. The temperature at this time was 98·4°, the pulse-rate 130, and the respiration 30. At 9 P.M. the temperature was 99 8°, the pulse-rate 144, and the respiration 38. At 10.30 P.M. a second similar dose was injected. Still, the spasms kept recurring at intervals of ten minutes. At

[1] A paper read before the Glasgow Medico-Chirurgical Society on Dec. 6th, 1895.

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11 P.M. the temperature was 101·4°, the pulse-rate 152, and the respiration 48. The same conditions of recurrence of spasms, with a slight cry sometimes, continued till the morning of the 9th at 2.30, when, after being quite livid, his face became extremely pale and he asked to be lifted up a bit in his bed, when he quietly died in the nurse's arms. He had received a third injection an hour before death, when his temperature was 103 2°, the pulse uncountable, and the respiration 52.

A third case was brought to my notice by one of my colleagues who had attended to a man's injuries which were of a similar nature to those detailed in Case 2. Tetanus supervened a few days (three or four) after injury, and as soon as he was brought to hospital tetanus antitoxin was injected. The patient had two injections, six hours intervening. He died a short time after the second injection, nothing in the way of diminution of intensity of symptoms having been noticed. One fact—i.e., profuse perspiration—which did not occur in my cases, was noticed in this.

Remarks.—I have thought it well to publish these cases, because in the matter of a new mode of treatment it is, I take it, our duty, whatever the results may be, to bring out every fact that may be of use in determining the proper value of the treatment. The latter of my two cases gave all the signs and symptoms of a typical case of acute tetanus. The exhibition of the antitoxin, and the operative measures employed to aid it in its action, had certainly not the slightest effect, at least in a curative direction. The steady rise of temperature, the lividity followed by pallor, and the increasing frequency of the attacks were not affected, at least in the right direction. The first case was not quite the normal form. It, also, might be called acute; yet the termination of the case with a falling temperature was unusual. No urine was passed by either patient after the injections had been given. The examination of this secretion might throw some additional light on the action of the antitoxin.

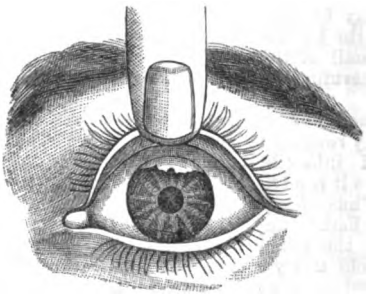
Glasgow.

THE ACCIDENTS OF LENS EXTRACTION.

BY CHARLES BELL TAYLOR, M.D., F.R.C.S.EDIN.,
HONORARY SURGEON TO THE NOTTINGHAM AND MIDLAND EYE INFIRMARY.

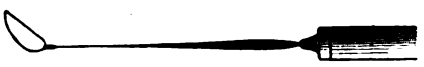
I DESIRE to supplement my remarks on the Accidents of Extraction in THE LANCET of Aug. 31st, 1895. If, in consequence of an extremely narrow chamber, mal-incidence of light, unruly conduct of the patient, or other accident, the point of the knife should pass into the pupillary area, and behind instead of in front of the distal portion of the iris, it must be withdrawn and freed before making the counter-puncture, and the section completed with the secondary knife or with scissors. If, in consequence of premature escape of the aqueous humour or delay in getting in front of the iris, it should obstinately fold over the edge of the blade, so that persistence on the part of the operator would inevitably entail mutilation, then the knife should be turned round so as to present the back of the blade to the protruding portion while the counter-puncture is effected; but if there is no objection to a slight iridectomy the knife may be pushed on so as to slice off a small piece of iris, or, by manipulation outside the cornea, the coloboma may be limited to the periphery of that membrane, leaving the pupil untouched and free in the anterior chamber. (Fig. 1.) Iridectomy accomplished in either of these ways is less painful, is less apt to provoke resistance on the part of the patient, and bleeding is less likely to occur than when the iris is withdrawn with forceps and snipped off with scissors in the usual way. This peripheral section of the iris, however accomplished, while preserving the pupil, is an effectual preventive of prolapse, and was first suggested by myself with that object in a paper which I read before the International Ophthalmological Congress at the Royal College of Physicians of London when last held in London under the presidency of the late Professor Donders. The wound for extraction should be peripheral, and the flap as large as consistent with safety. The lens starts easily with a large flap, and may on occasion be delivered with the capsule intact by manipulation with two spoons outside the cornea. The peripheral position of the incision sometimes entails a conjunctival flap which may bleed into the anterior chamber, and unless the blood is coaxed out before it coagulates will obscure the field of operation. Professor Hansen Grut of Copenhagen fears that this blood may prove a source of infection, but if loose and exposed coagula are, as is essential, carefully removed, there is no such danger, and the sanguineous fluid between the lips of the incision will seal up the anterior chamber and prevent prolapse of the iris by ensuring almost instant healing of the wound. If, as I have seen in cases of extreme myopia with semi-fluid vitreous, the vitreous should escape in quantity and the

FIG. 1.



eyeball at once collapse, it is prudent in certain cases to limit the operation for the time to a slight iridectomy, extracting the lens later through a peripheral linear incision with a spoon. If, after completion of the section, from any accident the vitreous of normal consistence should gush forth and the lens sink behind the lower segment of the iris it should be instantly dipped out with the fenestrated loop which I use for this purpose, which is less rigid and more easily manipulated than the ordinary pattern, and which also possesses the unique advantage of assisting the exit of the lens without adding to its bulk. (Fig. 2.) If the capsule is too tough to

FIG. 2.



permit of incision by the pricker it should be withdrawn whole with forceps, leaving the iris intact, and the same procedure may be adopted at once after extrusion of the lens if it is evident that the capsule will interfere with subsequent vision. If the eye to be operated on is so sunken, or the brow so prominent, that it is difficult with the ordinary keratome to locate the incision with precision, it it well to use the knife with a deep elbow which has been made for me by Weiss for use in such cases. (Fig. 3.) If one eye has been lost

FIG. 3.

after extraction through a corneal incision the chances of salvation for the other will be greatly increased if the incision is limited to the sclera, as in Graefe's operation. It is well, also, in view of the injurious effect which sympathetic irritation may have upon the eye about to be operated on, to excise the stump of the damaged organ some weeks before extracting on the other, or optico-ciliary neurotomy may be done, with equally good effect. I do not hesitate to extract immature cataracts which interfere with vision in persons past middle life, but I am always careful in such cases to facilitate the exit of the lens entire by a large flap, and to avoid so far as possible the subsequent formation of inflammatory products in the pupillary area by limiting the incision of the capsule, as recommended by Knapp, to the periphery only of that membrane. If there should be lacrymal obstruction or anything like conjunctival discharge

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or encrustration on the lids in cataractous subjects, it is most important that a healthy tone should be restored before operating. Pagenstecher destroys the lacrymal sac when there is purulent discharge, and Haab also recommends the obliteration of the puncta by the galvanic cautery. I have, however, found myself that probing (without slitting up the caniculus) and the use of astringents and antiseptics, especially that most potent of all, nitrate of silver, are sufficient to enable us to extract with safety. When it is necessary to excise the iris for any reason during extraction without a general anæsthetic, it may be rendered insensible in from one to two minutes by merely dropping a solution of cocaine on to the surface of the wound. Mr. Critchett, to whom we are indebted for the suggestion, conducts the solution into the anterior chamber by means of a grooved curette; but I have not found this necessary, and have always deprecated the injection of fluids into the anterior chamber. When, in spite of all efforts to extrude cortex, the pupil remains obstructed, grey, and sombre, the hyaloid fossa may on occasion be punctured, in which case the patient is much in the position of one whose lens and capsule have both been removed at one *coup* with a spoon. Of course, the most serious drawback to simple extraction is the possible occurrence of prolapse of the iris; as Pagenstecher says: "The operation is completed beautifully, and just as beautifully next day you find that the iris is prolapsed." This accident is caused by abnormal tension of the eyeball, by sudden outgushes of the aqueous humour, by faulty placement of the incision, by swelling up of retained cortex, and by spasm of the lids. Kalt of Paris endeavours to prevent prolapse by suturing the cornea, Galezowski by sealing the wound with an antiseptic wafer, Snellen of Utrecht by closing it with a conjunctival flap, and Knapp of New York by subjecting his patients to a series of tests immediately after extraction, performing iridectomy in those cases in which the iris shows a tendency to protrude. For my own part, I am satisfied if the edges of the wound are accurately in apposition, if the flap fits like a watch-glass, and the pupil promptly contracts; in these cases the anterior chamber is reformed at once, there is no gushing of aqueous or prolapse of iris, and, barring accidents, there will be none. But accidents will happen: "Against stupidity the gods themselves are powerless"; hence we are compelled to reckon upon a certain percentage of cases in which prolapse will occur; and, of course, if prolapse were a very serious accident its possible occurrence would be a fatal objection to simple extraction, but it is not a very serious accident. The great majority of the subjects of prolapse are no worse off than if iridectomy had been performed in the first instance, while, if the operation succeeds, then, indeed, the surgeon has something like success—the success which leaves nothing to be desired, which has nothing to fear for the future, and which restores the patient to society, not only with excellent vision, but with eyes which show no trace of operative interference. I presented patients, the subjects of double extraction by this method, to the notice of members of the Clinical Society of London in 1875, to the Medical Society and to the staff at the Royal London Ophthalmic Hospital and again to the members of the Ophthalmological Section at the jubilee meeting of the British Medical Association. Such eyes, according to my experience, bear the wear and tear of life much better than eyes operated on by the combined method, and of course sight is better (one patient on whom I operated for senile cataract twenty-six years ago is still alive and has excellent sight), and, Helmholtz and Donders to the contrary notwithstanding, accommodation is not abolished.[1] I have had patients able to read small print without glasses after extraction, and many more who can do so by a slight change in the position of their distance glasses, and all trace of operative interference is so conspicuously absent that patients of mine who have afterwards consulted eminent ophthalmic surgeons have quite naturally escaped detection. Of course, in this operation there is only one wound; in extraction with iridectomy there are two; hence in the latter case the traumatism and liability to infection are greater. Otto Becker's researches (post mortem) have shown that when iridectomy is done there is always prolapse at the angles of the wound,[2] and the lens capsule, as Mr. Swanzy warns us, is very apt to be trapped in the wound with the combined operation, an accident which never happens with simple extraction. The central and movable pupil, too, of course fulfils its natural function of regulating and excluding rays of light much better than one that has been deprived of a portion of its sphincter, and, as in aphakial animals, compensates for the absence of the lens. If suppuration should threaten after extraction, internal antisepsis, after the method of Vopelius, should be at once adopted.

Nottingham.

[1] See Foerster's Researches.
[2] See his Pathological Anatomy of the Eye.

OBSERVATIONS ON COCAINE ANÆSTHESIA.

BY J. JACKSON CLARKE, F.R.C.S. ENG.,
ASSISTANT SURGEON AT THE NORTH-WEST LONDON HOSPITAL, AND PATHOLOGIST AT ST. MARY'S HOSPITAL.

LIKE many surgeons who have much out-patient work, I have for some years past made extensive use of cocaine anæsthesia, and I venture to give my experience of it, for two reasons. The first is because I am convinced that in many cases the solutions, whether used for superficial application or for hypodermic injection, are insufficiently diluted, and the second because, of late, improvements in the composition of solutions for hypodermic use have been suggested.

The scope of the method.—As examples of the kind of operations to which my observations relate I may mention the removal of cutaneous tumours, such as rodent ulcer and sebaceous cysts of the scalp; circumcision; the excision of simple ganglia about the wrist and the ankle; the opening of deep abscesses, such as ischio-rectal and perineal abscesses, in cases where the skin is free from œdema and redness; tenotomies; the excision of tuberculous glands when free from deep adhesions; and also as a superficial application for the removal of tonsils and adenoids in adolescents and adults. The more serious operations are, in my opinion, unsuited to the method on account of unforeseen difficulties and complications which may arise and demand prompt and energetic measures, but in emergencies and exceptional cases—e.g., tracheotomy—cocaine may be used. As an example of the use of the drug in an emergency the case related by Mr. Hartley[1] is of interest; that surgeon successfully tied the external iliac artery after injecting a 2 per cent. solution. In parts to which the elastic band can be applied more latitude for the drug is obtained; thus Bryson,[2] using a 4 per cent. solution, performed double castration after surrounding the base of the scrotum with an elastic ligature.

Idiosyncrasy.—The smallest hypodermic dose which I have observed to produce faintness and nausea was one-tenth of a grain; this was in the case of a man aged sixty-five. I have found that old people are especially susceptible, and it is advisable in every case to have brandy and amyl nitrite at hand. Probably, as is the case with chloroform, degeneration of the heart is the condition most to be feared. The application of cocaine to mucous surfaces has given rise to fatal accidents. It must, however, be borne in mind that many cases attributed to idiosyncrasy have been due to the use of injudiciously strong solutions or to the injection of the drug directly into veins. With proper care, even in regions rich in veins, such as the lower part of the rectum, the method may be safely practised; thus Ricard[3] has operated for hæmorrhoids after producing anæsthesia by a 1 per cent. solution, the needle being plunged deeply into the tissues and gradually withdrawn as the injection was made.

Strength of solutions.—For some years I have employed a 1 per cent. solution for hypodermic injection and a 2 per cent. solution for mucous surfaces, but latterly, influenced by the experience of Schleich,[4] I have diminished the strength of the hypodermic injections. Schleich recommends a solution made up of cocaine hydrochlorate and sodium chloride, of each three grains; morphia hydrochloride, one-third of a grain; distilled water to three ounces—equivalent to a 0·25 per cent. solution. The sodium chloride was added, since it was found to diminish the pain caused by the

[1] THE LANCET, June 22nd, 1895.
[2] Journal of Cutaneous Genito-Urinary Diseases, July, 1895.
[3] Gazette des Hôpitaux, February, 1895.
[4] German Congress of Surgeons, July, 1894.

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injection. Bransford Lewis[5] reports that, using this solution, he has found it possible to anæsthetise the corium, but in the deeper tissues the anæsthesia was not perfect. This has been my own experience, and latterly I have used a ½ per cent. solution in removing a rodent ulcer of the nose and in other minor operations with complete satisfaction. It is impossible to keep weak solutions for any length of time without fungi appearing in them; therefore it is preferable to make the solution fresh from the solid drug for each operation. For this purpose Messrs. Allen and Hanburys have kindly made for me pellets, each containing one grain of cocaine hydrochlorate and half a grain of common salt. One such pellet dissolved in three drachms of boiling water gives a sterile ½ per cent. solution, which is cooled by placing the vessel in cold water or on ice. Tested on myself, it produced in one minute complete anæsthesia, which lasted exactly a quarter of an hour. When the elastic band was used the anæsthesia was complete for twenty minutes, and after the band was removed at the end of this time the anæsthesia lasted ten minutes longer.

The method of making the injections.—When injections are made for the purpose of anæsthetising the skin, the corium should first be filled with the solution. This is accomplished by using a very fine needle and introducing it almost parallel to the surface of the skin. A few drops are injected, causing a slight wheal to appear, and after a pause of a few seconds the needle is pushed further, and the process is repeated until the whole of the corium is infiltrated. The subcutaneous and deeper tissues are to be treated in a similar way. This method has been described in detail by Schleich, but it has been used by many surgeons, including myself, for years. The merit of showing the anæsthetic effect of fluids injected into tissues so as to cause pressure on the nerves, and the suggestion of making the addition of common salt to solutions of cocaine, apparently belong to Schleich. There is, however, a limit to the desirable degree of infiltration. If the wheal produced by the entry of the fluid into the tissues is very tense the parts remain tender and the skin red for over twenty-four hours.

The elastic band.—As the result of a personal experiment I can say that for the first five minutes the band gives rise to but little discomfort, but after that the discomfort increases, until at the end of twenty minutes I was glad to get it off. In an operation which can be completed within fifteen minutes the band is not necessary, but in old people it is advisable to apply the band until after the chief incisions have been made, so that the tendency to absorption of the drug is diminished. In some cases the band is required in order to secure a wound unobscured by blood. If the band is used for more than a quarter of an hour tenderness and redness follow in the part which has been subjected to the action of cocaine.

Other details.—It need hardly be mentioned that perfect antiseptic precautions should be observed, yet some cases have come to my notice in which subcutaneous abscesses &c. have followed hypodermic injections of cocaine. These have been due to the lack of simple precautions. An ideal syringe should be capable of being placed in boiling water with the other instruments, and at the same time should be perfect as a hydraulic machine. The syringe I have used for some years without any mishap answers the second, but not the first, of these requirements. By using it solely for the one purpose, and by cleansing it with a 5 per cent. carbolic solution before and after each operation, it has been kept aseptic. It is also kept in an air-tight metal case, which keeps the piston moist. The instrument was made for me by Mr. T. Hawksley, who has also brought to my notice two other instruments—one with a solid steel piston fitted with cork; this can be placed in boiling water without detriment, but the cork fittings would, in my opinion, be liable to wear and become defective; the other is the instrument used for mercurial injections in syphilis—it has platino-iridium needles and an ingenious rubber piston (the latter would prevent its being sterilised by heat). A perfect syringe has, I think, yet to be found.

Substitutes for cocaine.—Lucas Championnière has recently suggested guaiacol dissolved in olive oil as a substitute for cocaine. I have tried on myself a solution of thirty grains in one ounce of olive oil, and find it produces anæsthesia, but causes considerable swelling; and, whilst in the central part of the swelling there is anæsthesia, there is much smarting at the peripheral part of the area into which the fluid has been injected. The smarting lasts much longer than the anæsthesia. I am not, therefore, inclined to try this drug on patients.

Old Cavendish-street, W.

[5] Journal of Cutaneous and Genito-Urinary Diseases, July, 1895.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

TWO CASES OF REVOLVER ACCIDENT.

BY FREDERICK PAGE, M.D. EDIN., M.R.C.S. ENG.,
SURGEON AND JOINT LECTURER ON CLINICAL SURGERY, NEWCASTLE-ON-TYNE ROYAL INFIRMARY.

A LAD aged seventeen years was admitted into the Royal Infirmary, Newcastle-on-Tyne, on Feb. 6th, 1895, in a very critical condition, his left chest being full of pus, the result of a pistol accident fourteen days previously. Over the apex of the heart there was a small entrance wound; the ball was lodged in his chest. The apex-beat was felt under the right nipple. Thirty ounces of pus were at once drawn off by aspiration, and three pints were drawn off the next day by the same means. On the following day, the lad being much improved, the chest was incised and drained without chloroform; thirty ounces of pus escaped. On May 10th a portion of the seventh rib was removed to permit of better drainage. On June 6th the lad left the hospital in a fairly satisfactory condition, gaining strength, in good spirits, and with about one drachm of discharge daily escaping through the tube.

Remarks.—One interesting point in the case is, Where is the ball lodged? The lad never spat any blood; fluid quickly accumulated in the chest after the accident, but without marked symptoms, apparently, till the quantity was very large, and on admission he was too ill to have his chest incised or to take chloroform. Two weeks after leaving the infirmary he had a troublesome attack of hysteria, during which he refused food and had to be fed by the stomach-pump, resisted being dressed, had retention of urine, bit and scratched and kicked, and altogether behaved like a maniac. The attack lasted some four or five days. Since then his progress towards recovery has been satisfactory, and he is now strong and well.

Since writing the above I have had a second patient under my care suffering in a similar manner. A lad aged seventeen years was admitted into the Royal Infirmary on Dec. 22nd, 1895, suffering from internal hæmorrhage, the result of a bullet wound received two hours previously. While the patient's father was explaining to him the action of a revolver the weapon exploded and the ball entered his abdomen a little above the pubes; it could be felt lying under the skin of the left buttock. On opening the abdomen it was found to contain a large quantity of blood. The bladder was full of clot, and there were four perforations of the small intestine. The ball had passed out of the pelvis through the left sacro-sciatic notch, injuring an artery in its neighbourhood, probably the gluteal or a branch of that vessel. The bladder and abdomen were freed from blood, and an attempt was made to find the wounded artery, but this was unsuccessful, and at last the common iliac artery was ligatured. The injured gut was resected and the ends sutured, Allingham's bobbin being used. The ball was then extracted and a large drainage-tube introduced into the pelvis from the buttock wound alongside the bladder. The peritoneal cavity was carefully sutured so as to shut it off as completely as possible from the bladder, and the wound closed. Transfusion of hot saline fluid was performed during the operation. The lad rallied and was able to give a full account of the accident. At 4 A.M. on Monday, Dec. 23rd, however, he began to sink, and died during the morning. This is the second serious revolver accident which has been treated at the Royal Infirmary during the last few months. In the other case, reported above, a youth aged seventeen accidentally shot himself with a toy revolver, the ball entering his chest over the apex of the heart; empyema followed, from which he has only just now recovered.

Newcastle-on-Tyne.

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TWO CASES SHOWING CHEYNE-STOKES RESPIRATION IN CONNEXION WITH THE ADMINISTRATION OF CHLOROFORM AND MORPHINE.

BY L. A. PARRY, M.B., B.S. LOND.,
LATE HOUSE PHYSICIAN, GUY'S HOSPITAL.

THE only two examples of Cheyne-Stokes respiration under the influence of a general anæsthetic with which I have met both occurred in patients who were anæsthetised with chloroform in conjunction with morphine. The first case was that of a man aged seventy-six, who was suffering from an epithelioma of the tongue with secondary deposits in the glands of the neck. The glands were first removed, laryngotomy was then performed, and, finally, the tongue excised by Whitehead's method. Five minutes before commencing the administration of chloroform I injected subcutaneously one-fourth of a grain of morphine and one two-hundredth of a grain of atropine sulphate. Some time after the beginning of the operation the patient developed typical Cheyne-Stokes respiration; this lasted throughout the surgical procedures, which occupied eighty-five minutes, and then soon passed off. Eleven drachms of chloroform were used. The second case was that of a man who was suffering from some cerebral complications of otitis media. Morphia was injected previously to the commencement of the inhalation of chloroform. The patient soon developed Cheyne-Stokes respiration, which lasted till death some hours later. I was told that some form of respiratory difficulty, which was very likely Cheyne-Stokes respiratory rhythm, had been noticed between the injection of morphine and the administration of chloroform. It is, indeed, highly probable that the morphia was the main agent in the causation of this condition in both cases.

South Norwood-hill, S.E.

ETHYL CHLORIDE IN HYSTERICAL APHONIA.

BY ALFRED KEBBELL, M.R.C.S. ENG.

I HAVE found the application of ethyl chloride to the nape of the neck most efficient in the treatment of this troublesome affection. It is applied suddenly, to the extent of making a frozen patch the size of a shilling, and repeated if necessary. It is useful, because more convenient than the application of electricity. The results in the two cases given confirm, I think, my opinion. The first case was that of a dark-complexioned young woman, of a highly emotional disposition, who sent for me in consequence of being unable to speak above a whisper. As I was some distance from home and had no battery with me, it occurred to me to try the application of some chloride of ethyl. I applied it suddenly over the middle of the neck, with immediately favourable results. She had one or two relapses, but was always at once relieved by its application. So impressed was she with its efficiency that she asked for a flask of the chloride and got a companion to apply it for her when necessary. The second case was that of a tall, highly nervous married woman about thirty-five years of age, who, after a severe domestic trouble, had completely lost her voice. One application to the nape of the neck quite restored the voice, which she has not lost since.

Flaxton, York.

THE HOWARD ASSOCIATION AND WORMWOOD SCRUBBS PRISON.—The committee of the Howard Association, London, at their January meeting (Mr. W. W. Baynes, J.P., in the chair), adopted the following resolution:—"The committee of the Howard Association have learnt with pleasure that amongst several improvements recently introduced into local jails, the authorities have ordered Wormwood Scrubbs Prison to be specially devoted to the reception of first offenders from the metropolitan district, in order to separate them, as a class, from criminals imprisoned more than once. The committee hope that the Home Secretary and the Prison Commissioners will take the further much-needed step of discontinuing the overcrowding of prisoners in the workshops of Wormwood Scrubbs, which is being permitted in contravention of the existing Prison Acts."

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

TWO CASES OF HYDROCELE OF HERNIAL SAC.

(Under the care of Mr. WILLIAM ANDERSON.)

MOST hospital surgeons have met with examples of the condition described in the cases of which we publish the following notes. Still, it is a rare condition and one of practical importance. Usually produced by the adhesion of the omentum to the lining of the sac in consequence of inflammation, intestine may become adherent and similar results follow. Adhesion of the two layers of the sac which are in contact may also ensue in consequence of the pressure of a truss, and, by the pressure of the hernia above and the accumulated fluid below, the adherent part may assume the character of a distinct membrane. Should the hernia above become adherent, then it is possible that there may be a double hydrocele, as in a case of femoral hernia which we have published in the columns of THE LANCET.[1] It is a rare complication of femoral hernia, as Mr. Langton had at that time only met with it once out of almost 7000 cases of femoral hernia treated at the Truss Society in a period of eighteen years.

CASE 1. (From notes by Mr. L. Gilbert.)—A man aged thirty-six years was admitted into St. Thomas's Hospital on Oct. 19th, 1895, with a large swelling on the left side of the scrotum. The patient was a strongly built man in fair health. He stated that about sixteen years previously he had noticed in the position of the external inguinal ring a small swelling. This increased slowly in size, and about a month before his admission had attained the dimensions of a turkey's egg and extended into the scrotum. It was occasionally reducible and had never caused any trouble. On the morning of Sept. 25th the tumour suddenly increased in size and became very hard and tender. It grew larger daily and caused a good deal of pain, but no constitutional or functional disturbance. On examination there was found a large oval swelling, about the size and shape of an ostrich's egg, occupying the right side of the scrotum and reaching upwards into the inguinal canal. It was tense, fluctuating, and translucent at its lower two-thirds, solid and opaque above, and there was a slight impulse on coughing. It was somewhat tender and hot and quite irreducible. An operation was performed by Mr. Anderson on Oct. 23rd. An incision was made into the front of the tumour, a little below its middle, and on piercing the sac there escaped a gush of about fifteen ounces of turbid, straw-coloured fluid with a faint, unpleasant odour. The sac-wall was thickened and opaque, and occupying its upper third was felt a doughy mass of omentum. Before proceeding further the cavity was well washed out with a weak perchloride of mercury solution. The incision was then carried upwards. The exposed omentum was of very large size, very vascular, and firmly glued to the sac-wall by recent lymph. The adhesions were broken down by the finger, and the mass, which was repeatedly irrigated with antiseptic fluid during the operation, was drawn down until the healthy omentum was reached. Through this were passed silk ligatures, and the structure was tied in eight segments well above the line of incarceration. The inflamed portion of the omentum was then cut off; the stump, after being washed with perchloride solution, was returned into the abdomen; and the sac was isolated, ligatured at the level of the internal ring, and cut off below the ligature. Finally the incision was united by means of silkworm gut sutures. The wound healed by first intention, and the patient was discharged on Nov. 10th.

CASE 2. (From notes by Mr. J. N. Walker.)—A man

[1] THE LANCET, Feb. 28th, 1887.

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aged thirty-three years was admitted on Oct. 28th, 1895, with a large scrotal tumour on the left side. The patient said that he had had, since infancy, a swelling in the inguinal region which underwent occasional increase in size, but could never be completely reduced. It did not, however, cause any functional disturbance. Eight days before his admission the tumour without apparent cause became tense and painful, and grew rapidly larger, but still without intestinal symptoms. On examination a tense oval tumour, with a fairly distinct impulse on coughing, was found extending from the left inguinal canal nearly to the bottom of the scrotum. The testicle could be felt with some difficulty at its lower and back part. The upper part of the tumour was opaque and appeared to be solid; the rest was translucent and fluctuating. Mr. Anderson operated on the 31st. The details of the operation resembled those in Case 1, and the condition revealed was similar, except that the adherent omental mass was smaller, the effusion in less quantity, and the sac-wall more thickened by the pre-existing inflammation. The omentum was ligatured in three segments and as the inflamed sac could not be isolated from the surrounding tissues it was divided below the external ring, and the upper segment was stripped up as far as the internal ring and ligatured. The lower portion of the sac was left *in situ* after being swabbed out with carbolic acid lotion. In this case, as in the last, the testicle was outside the sac. The wound was found to be healed a week later, when the dressings were removed. The patient was discharged on Nov. 25th.

Remarks by MR. ANDERSON.—The condition exemplified by the preceding cases is somewhat rare and, by reason of its rarity, may easily escape a correct diagnosis until the question is settled by the knife of the surgeon. The points for observation are (1) the history of a scrotal tumour, at first partially or completely reducible, but becoming irreducible after undergoing a sudden and painful enlargement; (2) the extension of the tumour into the inguinal canal; (3) the presence of impulse on coughing at the external inguinal ring; and (4) the opacity of the upper part and translucency of the lower part of the swelling. Where the neck of the sac contains intestine instead of omentum there are likely to be symptoms of incarceration of a more or less severe type, the impulse on coughing would be more distinct, and a resonant percussion note might be detected over the imprisoned gut. In these cases the origin of the inflammatory attack that led to the fixation of the hernial plug into the upper portion of the sac and the rapid accumulation of fluid below was uncertain, since there was no history of violence, and no extravasation of blood or other indication of injury was evident at the time of operation. The treatment is simple, but it is desirable that inflamed omentum should be entirely removed, and that intestine, if present, should be carefully disinfected with a solution of perchloride of mercury or some other agent before its return, and none of the inflammatory fluid should be allowed to pass into the abdominal cavity.

DERBYSHIRE ROYAL INFIRMARY.

INTESTINAL OBSTRUCTION DUE TO OVARIAN TUMOUR.—POST-PHARYNGEAL ABSCESS.

(Under the care of Mr. CURGENVEN and Mr. J. A. SHARPE.)

ROTATION of the pedicle of an ovarian tumour is not of uncommon occurrence, but usually takes place when the pedicle is of fair length and the tumour has escaped from the pelvic cavity. The rotation in this case appears to have interfered as usual with the return of the venous blood from the tumour, and caused a condition of partial gangrene. It also probably caused a very considerable enlargement in size of the whole tumour and its impaction in the pelvis in consequence of the shortness of the pedicle. This impaction with increasing swelling gave rise to the condition for which operation was required—one of mechanical obstruction of the bowel. The second case is a typical one of post-pharyngeal abscess in most of its aspects—the age of the patient, the urgent dyspnœa, and the swelling of the neck, most marked to one side; the only unusual character about the case was the pointing of the pus in the neck. These acute abscesses nearly always break and discharge their contents into the pharynx. Dr. Edmund Simon has pointed out the presence of two lymphatic glands in the retro-pharyngeal tissue, one on each side of the middle line, in early childhood, and considers that they disappear after the third year. This accounts for abscess in this region (unless due to spinal caries) generally occurring in patients under four. For the notes of both cases we are indebted to Dr. C. H. Taylor, house surgeon.

Intestinal obstruction caused by an ovarian cyst which was impacted in the pelvis.—A married woman aged fifty-seven years was admitted to the infirmary under the care of Mr. Curgenven on March 19th, 1895, having had complete obstruction of the bowels for three days. Her history was most indefinite. She thought she had increased in size, but was not sure that any distinct tumour had ever been felt. For some months she had had pain in the left side and an increasing difficulty with her bowels. She was very stout, with a large amount of adipose tissue, and slightly jaundiced. The abdomen was enormously distended, rather more so on the left side, but nothing was made out by palpation. On percussion it was resonant in the right flank but dull elsewhere. Rectal examination revealed nothing. Enemata having been administered with no relief, and the patient's condition appearing to be serious, it was decided to open the abdomen in order to find a possible cause for the obstruction. The usual incision in the middle line through one inch and a half of fat revealed a large ovarian tumour and much ascitic fluid. The cyst on examination was found to be completely rotated at its pedicle, so much so that the left ovary was already gangrenous, and considerable hæmorrhage had taken place into the broad ligament. The rotation of the tumour, probably caused by the passage of intestinal contents along the descending colon, had led to its impaction in the pelvis and so by pressure caused the obstruction from which alone the patient appeared to suffer. The cyst was removed and the wound titched up. On March 20th there was much distension and the sickness continued. A turpentine enema followed by saline aperients relieved both. On the 26th the wound was dressed and the stitches were removed. On the 28th an unexpected violent sneeze caused the wound, in spite of strapping and binder, to give way, intestines and omentum being found under the dressing. After careful cleansing these were returned and the wound was restitched with silkworm gut. On April 11th the wound was again dressed and the stitches were removed. The wound healed, and on the 29th the patient was discharged in good health, wearing an abdominal belt.

Post-pharyngeal abscess; unusual course.—A female child aged ten months was admitted to the infirmary on Feb. 26th, 1895, under the care of Mr. J. A. Sharp, in a moribund state, having been ailing for four days. There was no history of diphtheria. The breathing had become difficult only during the last twenty-four hours. The neck appeared to be generally swollen. No definite cause for the tracheal obstruction could be made out, however, so tracheotomy was at once performed, affording relief. The temperature fell next day. The swelling in the neck appeared to be more distinct on the left side. Two days later a sense of fluctuation could be obtained on making deep pressure. A careful dissection was made on the left side through the skin, &c., and dressing forceps were pushed on until pus was found lying between the œsophagus and transverse processes of the cervical vertebræ. A drainage-tube was then inserted. The abscess cavity gradually closed, the tracheotomy tube being removed on the day after evacuation of the pus, and the child made a good recovery.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting held on Jan. 9th, 1896, the following list of officers, members of council, and members of the Pathological and Microscopical Committee was adopted:—President: Richard Caton. Vice-Presidents: W. Macfie Campbell, G. G. Hamilton, Charles H. Shears, and Robert Jones. Hon. Treasurer: Armand Bernard. Hon. General Secretary: R. S. Archer. Hon. Secretary to Ordinary Meetings: T. B. Grimsdale. Hon. Librarian: K. A. Grossmann. Council: R. J. Hamilton, R. W. Murray, H. G. Rawdon, W. T. Thomas, R. Williams, A. H. Wilson, R. Robertson, H. W. Knowles, Charles Macalister, J. H. Abram, Hugh E. Jones, and A. Stookes. Auditors: John Johnstone and W. P. Thomas. Pathological and Microscopical Committee: J. H. Abram, F. H. Barendt, A. Barron, Rubert Boyce, A. W. Campbell, T. B. Grimsdale, G. G. Hamilton, F. C. Larkin, J. R. Logan, R. W. Murray, F. T. Paul, W. T. Thomas, and J. Wiglesworth.

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Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Renal Colic in Infants.—Prevesical Abscess.

AN ordinary meeting of this society took place on Jan. 14th, Mr. HUTCHINSON, President, being in the chair.

Dr. R. A. GIBBONS read a paper on Renal Colic in Infants. In this paper he gave details of cases occurring in infants between nine and twenty-three months, in which all the symptoms of renal colic were present. In none of the patients was a distinct calculus found, but there was abundance of free uric acid, and small masses of mortar-like material passed consisting of uric acid. In all the cases detailed there was a strong family history of gout. From the facts brought forward it was clear that the affection was more rarely met with in the infants of the poor, and that the cause of this was due to the greater tendency to the inheritance of gouty conditions amongst the wealthier classes, the latter being more prone to the formation of uric acid and to suffer from conditions classed under the name "gouty." Dr. Gibbons believed that the subject had not previously been brought before the society, owing to the fact that such cases as those described in the paper, although extremely rare, had been probably taken for severe cases of intestinal colic. The points to which he desired to draw special attention were: (1) that in these cases there was suddenness of onset of all the symptoms; (2) that there was nothing observable about the general condition of the children, and especially the urine, before the attack to lead those in charge to seek medical advice; (3) that they had all the signs and symptoms of acute renal colic; and (4) that they all occurred in infants who were the offspring of gouty parents.—The PRESIDENT was not quite certain that these cases were true renal colic, for the diagnosis between this condition and intestinal colic was so very difficult in infants, and then, again, in none of the cases was true calculus found. It was a curious fact that the children of the better classes never suffered from calculus in the bladder. Brodie, Cadge, and others confirmed this observation, and he himself had never operated in private for vesical calculus in a child. The children of the rich nevertheless suffered a good deal from uric acid. As to dieting of children, he thought it should be insisted that table salt in sufficient quantity should be taken in food; this was a simple expedient which had been proved of help in keeping the uric acid in solution.—Mr. J. H. MORGAN was much interested in the paper because of its bearing on the question of the occurrence of stone in the poor and its absence in the rich. It was well known that uric acid crystals were frequently found in the kidney of the fœtus and in the urine, but no symptoms of their presence had been observed. Why was it that these children who suffered with renal colic as infants did not suffer with calculus until after they were two years of age? Was it that the collections of crystals passed away coated with mucus and so were kept soft, or were the masses retained, causing no irritation until, by accumulation, they reached a size large enough to give rise to symptoms of stone? Though in all the cases related the presence of blood and of crystals were associated together, in none of them was pus found. Perhaps it was that the crystals lacerated the mucous membrane and then passed away without further irritation. He felt sure that symptoms such as had been described must exist amongst the children of the poor, and now that they had been pointed out they would be no longer confounded with intestinal colic.—Dr. LEONARD GUTHRIE regarded the cases which had been related as instances of true renal colic, and the actual finding of a calculus was immaterial in the face of the microscopic examination of the urine. He was of opinion that these symptoms were very common amongst the children of the poor, who frequently showed evidence of the uric acid diathesis with pains in the abdomen, often referred to the umbilicus, or to the right or left hypochondrium, or to the right or left iliac or lumbar regions, and there might be tenderness over the area of pain. There also might be hæmatinuria, hæmaturia, or albuminuria, or irritability of the bladder with incontinence of urine, or supra-pubic tenderness, or penile pain might be complained of. There might be tonsillitis, pericarditis, endocarditis, joint pains, skin affections, or other evidence of rheumatic complaint. In cases of colic in the children of the rich a medical man would be sent for at once, but in the children of the poor the pains would be put down to teething or to want of food. The urine of infants was often difficult to obtain for purposes of examination, but an inspection of the napkin might show a reddish-pink colouration, and examination with a lens might discover crystals of uric acid. He wondered why Dr. Gibbons did not include the ordinary uric acid cases in his paper, for they were only different in degree from the cases of colic. As to the question of gouty inheritance, gout was uncommon among the poor, and this train of symptoms was associated rather with the rheumatic diathesis.—Dr. JOHN HARLEY remarked on the difficulty in obtaining specimens of urine from young children. He had no doubt that the cases described were instances of renal colic, the sudden onset of the symptoms and the sympathetic vomiting being characteristic. He did not hear Dr. Gibbons advocate the use of henbane in these cases. He regarded this drug as a sheet-anchor in relieving the pain and spasm of the involuntary muscle of the urinary tract, and it might advantageously be combined with opium.—Mr. R. W. PARKER said that his own experience of this class of cases was *nil*, and he thought that they must occur among the rich rather than among the poor. An amount of evidence had been brought forward which could not be gainsaid to show that renal colic might occur unassociated with the passage of stone.—Dr. GIBBONS, in reply, said that as all the cases which he had related had occurred in infants it was difficult to give table salt, though he believed that this was most valuable in older children. Only one of the cases he had related occurred in hospital practice, and then he was able to witness the actual paroxysm; but he had heard of other cases in hospital practice which he believed to be of the same nature. Though no actual hard calculi had been passed, yet small, soft pieces of calculous matter had been voided, and these he believed were sufficient to cause colic. Cases of uric acid diathesis were common enough, and few physicians failed to recognise them, but he did not wish such cases to be confounded with those related in his paper. He had not tried the use of henbane because he had found that the cautious use of opium gave as satisfactory a result as any drug that could be employed. He emphasised the fact that urine could be easily collected from infants by an intelligent nurse, and that four or five drachms were sufficient if a small urinometer and large test tube were used. He had examined urine collected from infants under one month old.

Dr. ERNST MICHELS read a paper on Prevesical Abscess. Abscess in the prevesical space was rare, only a few cases being described in French and German literature. The paper was based on the observation of four cases, all of which had given great difficulties, especially with regard to diagnosis. The prevesical space was defined anatomically, and the etiology of prevesical suppuration was discussed. Stress was laid on the fact that the source was not so often to be found in the bladder or prostate gland, but rather in diseases of other pelvic structures, chiefly the pelvic bones. The most prominent symptoms were pain in the pelvic region, frequency of micturition (the urine being healthy at the time), and the formation of a pelvic tumour resembling very much a distended bladder. After a time the abscess broke through the boundaries of the prevesical space, and might spread through the whole pelvis; it might break into one or several of the pelvic structures. The great interest of these cases lay in the difficulty of their diagnosis; during the initial stage the symptoms were much too vague to allow of a certain diagnosis; later the cases were often diagnosed as pelvic new growths. In all the four cases observed diagnosis was very difficult and mistakes had occurred. Even the use of the aspiration needle, which was of very great help, might fail to lead to a correct diagnosis. The treatment was difficult and tedious. Free incision and drainage were obviously required, but the abscess might spread through the pelvis in spite of very energetic treatment. If the abscess had broken through the transversalis fascia, and pointed in the anterior abdominal wall, it assumed the form of an abscess *en bissac*, one part lying superficially to the transversalis fascia, and the other part deep in the pelvis; the communication between the two portions might be very small, and special attention was required to find it and enlarge it sufficiently. The final

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result depended largely upon the primary cause of the abscess; in any case very slow healing must be expected. A short history of the four cases observed was given.—Dr. KENNETH MCLEOD said that in India he had met with several cases of prevesical abscess, and many of them were very large, in one case extending up to the umbilicus. Diagnosis was made by means of an exploring trocar, and this was followed by a free opening above the symphysis pubis and subsequent drainage. The true prevesical abscesses were usually symmetrical, extending equally on both sides of the middle line, and in natives of India did not appear to be especially connected with disease of the urinary organ; they appeared rather to have a pyæmic origin and to be associated with malaria.—Dr. MICHELS, in reply, said that these cases seemed to be more frequently met with in hot climates, for there were very few indeed published in English, French, or German literature. The cases which gave rise to difficulty in diagnosis were those which were solid at first, for their solid feel made the surgeon timid in using a trocar for purposes of exploration.

MEDICAL SOCIETY OF LONDON.

Prevention and Treatment of Insanity of Pregnancy and the Puerperal Period.

AN ordinary meeting of this society was held on Jan. 13th, the President, Sir JAMES CRICHTON BROWNE, being in the chair.

Dr. GEORGE H. SAVAGE read a paper on the Prevention and Treatment of the Insanity of Pregnancy and the Puerperal period. He said that the subject was wide, appealing to special and general practitioners. The simplest and most natural classification was into mental disorders. 1. Occurring in pregnancy—(*a*) in the earlier months, including certain cases which came on immediately with pregnancy; and (*b*) cases coming on during the later months of pregnancy. 2. Insanity of labour—(*a*) hysterical and transient; and (*b*) more lasting or permanent. 3. Ephemeral insanity associated with febrile disorder on the onset of milk, which might pass off or might lead to acute delirious mania. 4. Insanity coming on within the first fourteen days after labour. 5. Insanity coming on between that date and six weeks after labour. And 6. The insanity of lactation and that of weaning. As a rule recurring attacks in the same patient, whether preceding or following parturition, were similar, and the same person was liable to suffer from either of the forms named. There was no special definite form of insanity deserving the name "puerperal mania." The predisposing causes for all the forms of disorder were similar; heredity was the most important factor; this might be direct, mother and daughters having alike suffered from puerperal insanity. He did not find that many women who had suffered from puerperal mania had had grave hysteria, though a small number had had attacks of insanity before the puerperal one. It was a question how far they were justified in recommending marriage in the case of hysteria, and, on the other hand, how far they were right in trying to prevent such marriages. First pregnancies, especially if they occurred after the age of thirty, were more dangerous than earlier pregnancies. It was still a doubtful point as to the influence of illegitimacy on the production of puerperal mania. Previous attacks were very powerful causes of later ones, the danger being directly connected with the recency of the attack. Insanity might be the first symptom of conception. "Longings" of pregnancy might be insane or might replace insanity, or might lead on to insanity. The insanity of the earlier months often passed off naturally with quickening; that of the latter months rarely passed off with delivery. He did not think that the induction of premature labour as a cure for insanity was often justifiable. During delivery there might be hysterical outbreaks which might occur with each pain and which might pass off after labour, or which might leave a patient more or less unstable for days, or might even lead to mania. In some cases the administration of chloroform might lead to a similar disorder, and it was noteworthy that some persons had puerperal insanity when they had had chloroform during delivery. Ephemeral mania might occur within a few days of delivery, associated with feverish symptoms, the whole being due to onset of milk, and be relieved by a purge; this mania might, however, be the earliest stage of delirious mania. True puerperal insanity might depend on sepsis and then had to be treated as sepsis, the mental disorder being of secondary import. Within the first fortnight of delivery maniacal symptoms were most common with puerperal mania. If the insanity developed later it was more often melancholia. The ordinary symptoms of this disorder were well known; he only referred to the sleeplessness, refusal of food, dislike to friends and surroundings, and, later, the occurrence of eroticism. The questions involved were certification, removal from home, and removal to an asylum. The attacks could not be cut short by hypnotics, and he referred to the drugs which should be employed. The time taken for recovery varied from a few weeks to months. In many cases the bodily health improved long before the mind; in many others removal from home or at least frequent changes in the surroundings were advisable. Return home was very important, and then arose the risk of recurring pregnancies; these should be avoided for some years. About 8 per cent. of patients died from puerperal insanity; nearly 20 per cent. remained more or less permanently weak in mind. General paralysis of the insane might occur with puerperal insanity and might not interfere with pregnancy or delivery. Insanity following lactation or weaning was associated with great weakness and was generally of a melancholic type and was very curable. The practical points of the paper were: the marriage of neurotics and the danger involved; the danger of childbearing in such persons; the question of inducing premature labour in insanity of pregnancy; the classification of the forms of the disease; the recognition that there was no specific type of the disease, such as puerperal mania; the question of certification and home or asylum treatment; and the question of prevention of pregnancy in women who have had puerperal mania.

The PRESIDENT said that his own experience of puerperal insanity and the insanity of pregnancy was archaic, as he had not seen a case for twelve years. There was yet a great deal of vagueness and indefiniteness about the subject which needed clearing up. He did not think, for instance, that Dr. Savage's classification was satisfactory, for his arrangement included alike etiological, symptomatic, and periodic causes, and the latter was an especially unsatisfactory classification. He was at one with Dr. Savage as to the septic group, and to this group, perhaps, ought to be ascribed the name "puerperal insanity." These cases were easily recognised when going round the wards of an asylum, with their flushed faces and the restless activity of subacute mania. This class appeared to be diminishing, which was due to the effects of modern antiseptic treatment in midwifery. He ridiculed the idea that patients could fix the time of conception to a day, and said that such an attempt on the part of the patient might of itself be almost regarded as one of the earliest signs of insanity. As to the influence of illegitimacy in producing insanity, whilst the moral conditions, on the one hand, might contribute to depression, yet, on the other hand, many of the women who fell in this way were of strong animal passion and, coincidently with this, had a strong physical development and hence were not so prone to insanity as degenerates. He thought that Dr. Savage was rather too apt to seize upon the puerperium and connect it with the insanity. But they did not refer to measles occurring during the puerperium as "puerperal measles," or a pleurisy occurring at that time as "puerperal pleurisy." Speaking broadly, insanity might be due to changes in the blood or to changes in the nervous system occurring in neurotic subjects, but it was strange that in neurotics, when they were exposed to strain, practitioners often did not see the overthrow they might be led to expect. He quoted two cases to illustrate this. Two girls, both of whom had had attacks of hysterical mania, became married and had several children without losing balance, though one broke down later at the menopause.

Dr. BLANDFORD remarked that this was one of the most curable forms of insanity, the recoveries being something like 80 per cent., and these figures, it should be remembered, had been based upon cases admitted into asylums and hence probably only included the severer cases; if the cases treated at home were included the figures of recovery would be much higher. He felt sure that mere hysteria did not result commonly in puerperal insanity, and the cases of insanity of childbirth which he had seen had usually followed previous attacks of insanity. It was remarkable that in most of the cases the first symptom was sleeplessness, and with regard to this symptom practitioners were much at the mercy of the nurse, who alone could give a statement as to the

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amount of sleep, and on whom often much depended to promote sleep. Some women were bad nurses because they were always talking at night, or were poking the fire, or bringing the child to the mother to be nursed. If a patient was sleeping badly after a confinement the production of sleep by a drug was of benefit, as it might cut short the oncoming of an attack. When mania set in, hypnotics would not much influence the course of the disease, though they might save life in acute cases by the production of sleep. In other cases mania seemed to pass off quicker when no drugs at all were administered.

Dr. HERMAN said that he thought that there was such a thing as "puerperal insanity," which was characterised by its curability. Women who possessed a nervous system liable to break down were those most likely to suffer from puerperal insanity. There was hardly a form of nervous or hysterical affection for which marriage should be recommended as a cure, and such advice should hardly ever be given. The exception might apply to those cases in which it appeared from evidence (perhaps derived from the mother) that the nervous symptoms were due to unsatisfied sexual desire. In most cases of puerperal insanity albuminuria was not present, though after labours in which eclampsia had been present puerperal insanity did follow more frequently. He thought that he had cut short or prevented puerperal insanity by giving the patient sleep; one or two doses of chloral would not do harm, though if the drug were continued, it might be harmful. He had found in these cases that one drug could be given with greater impunity than any other, and that was alcohol, which should be administered in full doses at night. He had rarely sanctioned the induction of labour on account of insanity, but in this matter he had been guided by the teaching of Dr. Savage. The occurrence of amenorrhœa in these cases he looked upon as an advantage, and he did not think that it required treatment.

Dr. ROBERT JONES said that he had been at the Claybury Asylum for two years, and he had had 30 cases of confinement in the asylum. There had been 60 cases of puerperal mania among more than 2400 females, or 1 out of 43. Mania was more common than melancholia, for 31 had suffered from mania, whereas 12 were melancholic. Of cases of insanity of lactation 7 were maniacal and 1 melancholic; therefore the exhaustion of lactation did not have much to do with the production of melancholia. Of cases of insanity of pregnancy 6 were maniacal and 4 melancholic, the cases of mania occurring in younger patients (under twenty-five), while those of melancholia occurred in older patients (over thirty), the strain of parturition thus appearing to affect the minds of those past the earliest age of child-bearing. As the asylum had been only built two years it was early yet to speak of recoveries, but 32 out of 60 had recovered, and, of the remaining 28, 15 were convalescing. With regard to the question of recommending marriage, it should be recollected that the parents, as a rule, only came to the physician after all had been arranged and they were satisfied as to the pecuniary prospects of the husband. If by marriage the girl's position was improved and she would thus be happier if married, it might perhaps be advised. Of the thirty confinements in Claybury Asylum albuminuria occurred only in two, and neither of these patients had convulsions. One patient recently confined had epileptic convulsions of Jacksonian form during labour. She was delivered of a full-term healthy child, and had had no albuminuria and no convulsions since. In a second case, within twenty-four hours of confinement convulsions came on, which were only stopped by chloroform. For hypnotics he relied still on chloral and bromide of potassium; he had tried paraldehyde, sulphonal, and other drugs, but with no satisfaction. In the insanity of puberty the patients were discharged from the asylum when the menses reappeared, and that was usually in from six to eight months. In his experience it was exceptional for the maniacal cases to have a high temperature. Among his series only two cases were those of illegitimacy. He mentioned the case of a woman who was confined of her first child in an asylum; she afterwards had seven children without recurrence of insanity, but five out of her seven children had since been in asylums, one of them eight times.

Dr. ANDRIEZEN said he hoped to be pardoned for approaching the paper in a sceptical spirit. One great feature of these cases was their eminent curability. The best classification was probably according to their etiological and pathological factors. Where the individual was saturated with bad hereditary qualities she might easily acquire insanity. After labour the body of the female had been subject to severe strain and drain, and this told on the nutrition of the mother. In cases of hereditary tendency, indeed, the mere psychical idea of conception might be sufficient to cause insanity. He had made notes of the psychical conditions present in 120 cases of labour he had attended as a student; he found that four or five of these presented well-marked mental symptoms. One patient towards the end of the second stage of labour got incoherent, and then had visual hallucinations, which continued for one hour, until the child was expelled, when she quieted down. In another case, when the pains were greatest the patient became delirious and incoherent. The question of insomnia was a very important one, and if the patients were injudiciously nursed would lead to insanity. There was no doubt that parturient women should have plenty of sleep and nutriment. As to drugs, he had found that sulphonal in doses of twenty-five grains or more, combined with two drachms of the syrup of the hypophosphites, produced great good. Where the insanity was of the delirious type, with fever, the resultant brain change was the same as was found after chronic alcoholism, septicæmia, or general paralysis. The brain presented intense congestion, with small punctiform hæmorrhages in the pia-arachnoid and a waxy and greasy condition of the brain substance, the latter breaking with a brittle fracture. Microscopically there was found great destruction of the nerve cells, with free granular, fatty matter. He thought that the puerperal insanities were not special, but must be classed among the ordinary insanities in an etiological scale.

Dr. LEITH NAPIER said that he found it almost impossible to imagine an insanity of conception; so also it was difficult to believe in a special insanity of the earlier or of the later months of pregnancy. He had met with two or three cases of insanity during pregnancy. He thought it must be very exceptional to meet with signs of insanity in ordinary labour cases in the proportion of 1 in 60. He was surprised to hear that chloroform might conduce to insanity after labour. He quoted a case in which a patient who had taken chloroform during labour complained during the early period of her convalescence that she had been poisoned by that drug. He thought that the special form of puerperal insanity was the toxic form. He referred to a case in which insanity developed after labour, and in which, after examination, it was concluded that a pre-existent pelvic inflammation had led to puerperal sepsis. The patient died in a condition of mania, and perhaps some operative interference might have saved her life. In another case a woman was slightly febrile for twenty-one days after delivery, and on examination evidences of pelvic cellulitis were found; a fortnight later she developed insanity. The acute septic cases developed a maniacal tendency, while the cases of chronic sepsis were melancholic in type.

Dr. BOWER thought that in discussing causation sufficient stress was not usually laid upon heredity. He felt quite sure that recovery took place usually in less than four or five months, for the figures given had been taken from the severer cases in asylums. First attacks should be kept out of asylums if possible, and change of scene was of great importance when the patient was recovering.

Dr. SAVAGE, in reply, said that in many cases liable to insanity the "precipitant," so to speak, was the puerperal state. There was a period in the puerperal state during which insanity was common; the type of the insanity was peculiar, and he was sure that there were other cases besides the septic ones. If there was anything that was characteristic in the onset of these cases it was the sleeplessness, which was persistent and was an active, miserable sleeplessness. With regard to hypnotics he had been called to see people who had been drugged almost to death with chloral, and it was this deluging with drugs which was worse than the screaming or other symptoms for which they were given.

CLINICAL SOCIETY OF LONDON.

Intermittent Hydronephrosis and Transient Albuminuria with Movable Kidney.—Spontaneous Thrombosis of the Cerebral Veins and Sinuses in Chlorosis.—Addison's Disease treated with Supra-renal Extract.

AN ordinary meeting of the Clinical Society was held on Jan. 10th, Dr. BUZZARD, President, being in the chair.

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Dr. DAVID NEWMAN (Glasgow) read a paper on Intermittent Hydronephrosis and Transient Albuminuria in cases of Movable Kidney. He described four cases, in two of which he performed nephrorrhaphy for the cure of transitory hydronephrosis, and other two cases in which the same operation was resorted to for the relief of torsion of the renal blood-vessels, causing albuminuria and the presence of tube casts in the urine. Case 1: Transitory hydronephrosis and slight albuminuria during paroxysmal attacks of pain. When first seen the patient had developed all the characteristic symptoms and physical signs of movable kidney, with paroxysmal attacks, at first occasional, afterwards frequent and sudden. Such paroxysms sometimes lasted as long as twenty-eight hours, during which time as much as thirty-six ounces of urine accumulated in the renal pelvis; when it escaped the pain passed away slowly. Case 2: Right movable kidney, with transitory hydronephrosis from kinking of the ureter, but no albuminuria. Operation was followed by cure. The hydronephrosis was seldom absent for more than a few days and was sometimes distended to contain forty ounces of urine. Case 3: Right movable kidney, causing torsion of the ureter and leading to hydronephrosis, albuminuria, and the presence of tube casts in the urine. With the onset of the paroxysms of pain hydronephrosis was sometimes present; sometimes it was absent or not observable, but was attended by high specific gravity of the urine and albuminuria, and tube casts always appeared in the urine at the same time as the pain. Since the operation no albumin or tube casts had been found. Case 4: Left movable kidney, causing torsion of renal bloodvessels, albuminuria, tube casts, severe pain, and suppression of urine. There was no hydronephrosis, and operation was succeeded by recovery. The kidney was only freely movable, but no increase in size could at any time be made out.—Mr. BRUCE CLARKE said that two points of considerable interest had been raised by the paper: one was the frequent presence in the urine of albumin and tube casts, and the other was the method of suture. He himself thought that usually a certain amount of albumin was found in the urine in cases of hydronephrosis; it was transient, but was fairly constant. In nephrorrhaphy he had never packed the wound with gauze; nevertheless, in those cases in which nephrectomy was afterwards required he had found great difficulty in removing the kidney, so firmly was it fixed. In performing nephrorrhaphy he cut through the capsule, excoriated the renal substance by several scratches with the knife, and then fixed the organ by two or three sutures passed through the kidney substance. He congratulated Dr. David Newman on the good results he had obtained in the presence of so great a degree of antecedent hydronephrosis. He himself had not succeeded so well in cases of large hydronephrosis, but he had not fixed the kidney so high up.—Dr. DAVID NEWMAN, in reply, said his paper dealt rather with cases of occasional hydronephrosis than with cases where hydronephrosis was constantly present, but only occasionally relieved. In the latter the kidney was diseased and albumin frequently present. But in the cases of occasional hydronephrosis the presence of albumin and tube casts was more difficult to explain. Why did the transient passive hyperæmia lead to the presence of tube casts, the occurrence of which physicians were in the habit of regarding as of grave import and an indication of inflammatory trouble? The points in the operation were to fix the kidney as high up as possible, and to fix it well. In doing this his habit was to cut away as much of the adipose capsule as possible.

Dr. LEE DICKINSON read a communication on Cases of Spontaneous Thrombosis of the Cerebral Veins and Sinuses in Chlorosis. Three fatal cases in chlorotic young women were described, and others were referred to. Thrombosis of this kind, as an event of clinical importance, occurred more often in chlorosis than in any other one disease. That chlorotic blood was morbidly prone to coagulate within the vessels was evident from the frequency with which it did so in the veins of the lower extremities. In one of the cases described a pneumonic state of part of one lung was found post mortem, a thing worth remarking, because in pneumonia the blood was highly fibrinous and coagulation in the right heart a recognised danger. Sinus thrombosis, however, was very rare in pneumonia, and of 367 cases of pneumonia observed by himself other forms of venous thrombosis occurred in only seven. Of these seven, four were those of young women, and two were chlorotic. The distribution of intra-vascular coagulation brought about in animals by injection of foreign substances into the circulation was largely determined by the amount of carbonic acid in the blood. Chlorotic blood was probably overloaded with carbonic acid. The comparative infrequency of thrombosis in the sinuses, where the mechanical conditions were so favourable, might be explained by the recent observation that the cerebral venous blood was but slightly carbonised. The lesser degrees of sinus thrombosis were not always fatal, and were, perhaps, less rare than was supposed. In some recorded cases of optic neuritis as a complication of non-fatal chlorosis the severity of the headache was out of all proportion to the degree of anæmia. Optic neuritis and severe headache were the two most prominent symptoms of sinus thrombosis. A fourth fatal case was described in a young, but not chlorotic woman. The thrombosis was limited to the venæ Galeni and their tributaries.—Sir DYCE DUCKWORTH said that many years ago he saw with Dr. J. Andrew a young woman with well-marked chlorosis. There was intense headache, and the case proved fatal. Post mortem there was found an exquisite example of thrombosis of the cerebral sinuses. The next case he saw with Dr. Matthews Duncan. A woman aged thirty-five had been ill for three weeks after her confinement and had a "white leg." There were severe and torturing headache, optic neuritis, and slight convulsive attacks. Thrombosis of the cerebral sinuses was diagnosed, and a fatal result ensued. At the necropsy numerous thrombi were found in the cerebral veins and sinuses. Prominent symptoms in this condition were the severe headache, profound anæmia, optic neuritis, and convulsive movements. The treatment should be vigorous and adopted immediately upon recognition of the disease. He recommended the free use of alcohol and ammonia to stimulate the circulation, the food should be such as not to give rise to too great hyperinosis of the blood, and iron with alkali was valuable.—Mr. SPURRELL related a case which was admitted to the East London Hospital at Homerton a year ago. The patient was a girl aged thirteen, who was supposed to be suffering from scarlet fever, but it was found on her admission that this was not the case. There were extreme headache, a temperature of 104° to 105° F., and rigidity of the neck, with some retraction. She lay in a state of coma; the pupils were equal and dilated, but did not act to light; there was little, if any, optic neuritis. After a week she died, and post-mortem the cerebro-spinal fluid was found to be greatly in excess. The right optic thalamus was seen to be enlarged; on section it was in a condition of red softening in its whole extent; a thick film of fibrinous lymph lay on the choroid plexus over it, the right vein of Galen was thrombosed, and an ante-mortem clot was found in the great vein of Galen, which projected a short distance into the straight sinus. The patient was anæmic, but not much so, and there was no heart disease.—The PRESIDENT said that there was at present under his care in the Hospital for the Paralysed and Epileptic a young woman aged eighteen, who had been admitted a month previously, and was, he thought, subject to the affection under discussion, though she was recovering. There had been pain on both sides of the face for twelve months. Two months ago she had a series of screaming fits, followed by loss of consciousness for several hours. There was intense headache three weeks before her admission, and the right lower extremity swelled up from the groin to the foot. When admitted she was extremely chlorotic, and was so weak that she could scarcely stand. Though she tottered, yet there was no definite paralysis; there was double optic neuritis, and the intense headache continued. The hæmoglobin was estimated and found only to reach 50 per cent. Under administration of iron she at once improved, and the optic neuritis subsided. At present the hæmoglobin was 80 per cent., and the red blood corpuscles 95 per cent. Probably many moderate examples of this disease were in existence and were mistaken for hysteria.—Dr. LEE DICKINSON briefly replied. He said that the late Dr. Bristowe, in his work on "The Nervous System," had related a case very similar to that detailed by the President. The patient was extremely hysterical, but the case was diagnosed as one of thrombosis of the sinuses in a chlorotic patient.

Dr. SYDNEY RINGER and Dr. ARTHUR PHEAR contributed an account of a case of Addison's Disease treated with Supra-renal Extract, and also gave a brief *résumé* of recorded cases for which similar treatment had been adopted. It appeared that of nine cases five had shown

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improvement, although in some of these a sufficient time had not elapsed to determine whether or not the benefit was permanent. In two cases no improvement was noted; in one case the treatment was given only a very limited trial; and in one the disease ended fatally in spite of supra-renal treatment. The supra-renal tissue was in some cases administered by the mouth, in other cases hypodermically. Details were then given of a case lately under this treatment in University College Hospital. A woman aged twenty-eight had been suffering from symptoms of Addison's disease for a period of two years, attended with progressive weakness, some loss of flesh, vomiting without special relation to food, and pigmentation of the skin. Excessive pigment was present on the face, hands, forearms, axillæ, about the nipple, over the knee-cap, and in the neighbourhood of the toes and ankles. The discolouration was well marked in the armpits and around the mouth. There were deeply pigmented inky patches on the mucous membrane of the mouth, opposite the teeth. There was no evidence of tubercle in the lungs or elsewhere. Treatment with supra-renal extract was commenced, in doses equivalent to 45 grains of supra-renal body daily; this was gradually increased to a daily dose of 120 grains. There rapidly followed improvement in the general condition, and the pigmentation became notably lessened in degree. Vomiting, however, remained troublesome. No rise of arterial tension was noted. The improvement continued for four weeks, when there was a rapid change for the worse. There was no increase of pigmentation, but the general condition quickly deteriorated, cardiac action became feeble, and death occurred within six weeks of the commencement of the treatment and just over two years from the earliest symptoms of the disease. The temperature rose to 102° F. on the day before death. During the last few days arsenic and strychnine were given in the place of the supra-renal extract. The necropsy showed the supra-renal bodies to be shrunken and flattened about a third of their normal size, and exhibiting no trace of the normal structure.—Dr. PARKINSON related a case of Addison's disease treated by supra-renal gland which had been under the care of Dr. Murrell at the Westminster Hospital. The patient was a man aged thirty-one, who had a history of three months' weakness and bronzing of the skin. He was admitted in November last, and there was no evidence of lung disease. Five-grain tabloids of the gland were at first given, but this appeared to cause vomiting, and so after twelve days fresh sheep's gland was minced and given on bread with pepper and salt, one drachm being given three times daily. Three days later, the vomiting having increased, the dose was reduced to fifteen grains three times daily; but, although the vomiting had diminished, the patient gradually sank and died in the beginning of the present month. Caseation of the adrenals was found post mortem.—Dr. TURNEY referred briefly to two cases in which supra-renal extract had been given. The first was that of a man aged thirty, and attention was drawn to his complaint by the occurrence of sudden syncope; the diagnosis was confirmed by the discovery of slight increase of pigmentation, most marked on the backs of the hands, and of moles of recent appearance. The vomiting was slight. Glycerine extract of supra-renal capsule was given in the dose of one-third of a gland per diem. There was no definite result except an increase of the vomiting. The necropsy confirmed the diagnosis, both adrenals being caseous. The second case was not fairly quoted in connexion with supra-renal gland treatment, for the patient was admitted in the last stage of the disease, with marked asthenia, and died after only four doses had been administered.—Dr. HALE WHITE referred to a case, at first supposed to be Addison's disease, in which supra-renal extract was given. It was administered by the mouth, but the temperature rose after each dose to 102° F. The patient afterwards passed dark urine, which was recognised as that of pernicious anæmia, and this latter diagnosis was confirmed at the necropsy.—Dr. RINGER, in reply, remarked that he drew no conclusions from his single case, for "one swallow did not make a summer." Addison's disease ran a varying course, and cases often improved without treatment; hence they should be careful in drawing conclusions as to the effects of drugs.—Dr. PHEAR, in reply, said he did not think that the vomiting was due to the adrenal extract, for it was equally marked before the treatment was commenced. The patient's temperature was normal throughout, except just before death.

HUNTERIAN SOCIETY.

Chronic Pharyngeal Affections and their Relation to Diphtheria.—Localised Rheumatoid Arthritis.

AN ordinary meeting of this society was held on Jan. 8th, Mr. C. J. SYMONDS, President, being in the chair.

Mr. J. T. Roberts, Mr. E. B. Landon, Dr. H. E. Blandford, Mr. R. Jones, Dr. J. McClymont, Mr. E. L. Downes, Dr. H. Horrocks, Dr. A. Mitchell, and Dr. H. J. Campbell were admitted ordinary Fellows of the society.—Mr. COTMAN thought the society should be congratulated on the unprecedentedly large number of admissions to its ranks, showing the very flourishing condition in which it found itself.

Dr. J. H. SEQUEIRA then read a paper entitled "Chronic Pharyngeal Affections and their Relation to Diphtheria"; admitting diphtheria to be a specific bacillary disease, he wished to consider the entrance of the bacillus by the air-passages. He referred to the fact established by Dr. St. Clair Thomson and Dr. Hewlett that air filtered through the nares was practically germ-free, and hence deduced as a corollary that anything which contributed to oral breathing must be a predisposing factor in the onset of diphtheria. He then drew attention to the depth of the crypts of the tonsils, where bacilli could rest undisturbed, and to the altered vitality of the tonsillar mucous membrane in catarrh. From these two premisses he proceeded to draw conclusions, and summed them up as follows: (1) Tonsillar hypertrophy and post-nasal adenoids are found chiefly in children from the age of two to puberty, and 80 per cent. of the cases of diphtheria are found between those ages; (2) these pharyngeal affections are rare after thirty, while only 3 per cent. of diphtheria cases occur at this period of life; (3) 72·5 per cent. out of forty cases of diphtheria that he had examined presented evidence of tonsillar hypertrophy; and (4) diphtheria is a common sequela of scarlet fever, which severely affects the tonsils and often leads to mouth breathing.—Dr. F. J. SMITH said he thought that adenoids and enlarged tonsils with catarrhal conditions did not account for the whole increase in vulnerability to diphtheria; something more must be added in the shape of general constitutional weakness of resistance to infection.—Dr. HINGSTON FOX laid stress upon family disposition to the incidence of specific diseases and said he knew of many cases in which immunity seemed to run in families.—Dr. A. DAVIES referred to his experience of the frequency of diphtheria as a sequel of scarlet fever.—Mr. P. WARNER quoted a case of simple tonsillitis (occurring in the nurse of a diphtheria patient) in which no diphtheria bacilli were found.—Dr. GOODALL was not at all convinced that throat diseases predisposed to diphtheria. He referred to the difficulty of obtaining reliable histories of the previous condition of the throats of the patients in the fever hospitals, and suspected that it might prove that diphtheria was the cause and not the consequence of chronic throat trouble. He recognised diphtheria as a sequel of scarlet fever, but said it occurred very irregularly, now attacking very few and then a large proportion of convalescent scarlet fever patients.—The PRESIDENT mentioned two cases of removal of adenoids in which the patients had unfortunately succumbed to diphtheria after operation for removal of the growths.—Dr. SEQUEIRA briefly replied.

Dr. FORTESCUE FOX then read a paper entitled "Localised Rheumatoid Arthritis." Simple local arthritis, he considered, was distinguished from all other forms of degenerative joint lesion, specific, septic, or nervous. Whilst the latter were parts of generalised disease, simple arthritis was a local disease, excited by injury, in those in whom, from hereditary causes or senility, the joints were vulnerable. Hence it affected by preference exposed joints and the right side of the body. A summary was given of thirty-nine cases of local arthritis met with at Strathpeffer Spa and affecting the shoulder, knee, or hand. In the hand the basal joint of the thumb was most commonly involved ("typical senile local arthritis"), causing a cupping of the palm. "Last joint arthritis" was regarded as a form of gout in women. "Residual arthritis," the result of bygone acute rheumatism, &c., was also distinguished from proper local arthritis. The latter belonged to the climacteric and the senile periods. The treatment consisted in active irritation in the early stages, rest, and later some form of thermal treatment. The methods in use at Strathpeffer were described. The prognosis in most cases was not unfavourable.

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BRITISH GYNÆCOLOGICAL SOCIETY.

Annual Meeting.—Exhibition of Specimens.

THE annual meeting of this society was held on Jan. 9th, 1896, Dr. CLEMENT GODSON, President, being in the chair.

The treasurer, Dr. J. A. MANSELL MOULLIN, read his annual report. A hearty vote of thanks was accorded to him on the motion of the PRESIDENT, seconded by Dr. TRAVERS.—The editor of the journal, Dr. LEITH NAPIER, then read his annual report.—The PRESIDENT moved that a cordial vote of thanks be given to Dr. NAPIER. This was seconded by Dr. BENNETT and carried unanimously. A vote of thanks was given to the retiring officers on the motion of Mr. BOWREMAN JESSETT, seconded by Dr. HEYWOOD SMITH. The ballot for the election of officers resulted in the return of the gentlemen nominated by the council.

The PRESIDENT then read his annual address, after which Dr. A. ROUTH proposed a hearty vote of thanks to him for his interesting discourse. He congratulated Dr. Godson on his being the first gentleman to hold the office of President for two successive years.—Mr. MACAN seconded the resolution, which was carried with acclamation.

Mr. MAYO ROBSON showed the following specimens: 1. Myoma removed by Hysterectomy: New Treatment of Divided Ureter. The patient was aged fifty years. The tumour after removal weighed 20 lb. When slitting the peritoneum over the tumour it was found that the left ureter passed in front, and that 2 in. of it had been removed. He made a vertical slit in the upper end of the lower piece, so as to enlarge it funnel-wise, and then fixed the lower end of the upper-piece into it, securing it with a few fine sutures. The patient made a good recovery. There was no hæmaturia, nor were there any other urinary symptoms. 2. Ectopic Gestation in the Left Fallopian Tube. Primary rupture occurred in the sixth week, with formation of hæmatocele. The patient was operated on in the twelfth week and made a satisfactory recovery. 3. Sarcomatous Alteration in Myoma; Hysterectomy; Intraperitoneal Treatment of Pedicle by a Method not previously described. The tumour increased rapidly at the age of fifty-one years. Hysterectomy was performed by amputation above the cervix, with anterior and posterior flaps. There was a little oozing from one of the flaps, so he brought the stump of the uterus forward and fastened the peritoneum round it, while he sutured the fascia and skin over it. The patient made a rapid recovery. 4. Fibro-cystic Tumour removed from between the Layers of the Sigmoid Meso-colon. The patient was aged forty-three years. The tumour had grown quickly. The uterus and ovaries were free. The tumour was shelled out fairly easily from between the layers of the meso-colon. Recovery took place without bad symptoms. 5. Myoma of the Uterus, blocking up the Pelvis, in the eighth month of Pregnancy; Enucleation per Vaginam; Normal Delivery at Term. This was an interstitial myoma involving the posterior part of the cervix; in a similar case he had once done a Porro's operation. In this case he incised the capsule from the vagina and shelled out the tumour. The patient did not miscarry, but went on to term. 6. Multiple Fibro-myomata of the Uterus, removed per Vaginam. The patient was much blanched by hæmorrhage. The tumour filled the vagina and extended to the umbilicus. It was enucleated through the vagina, after incising the posterior lip of the cervix. When the patient went home at the end of a month no remnant of the tumour could be felt.—The PRESIDENT conveyed the thanks of the Society to Mr. Mayo Robson for his interesting specimens, and complimented him on his brilliant results.—Mr. BOWREMAN JESSETT complimented Mr. Mayo Robson on his novel, simple, and ingenious treatment of divided ureter. He would certainly adopt this method if the necessity arose. He thought pan-hysterectomy was an even more satisfactory way of dealing with fibroids than the plan adopted in the case of the third specimen, and that both methods were superior to treatment by the *serre-nœud*. He hoped to see this instrument relegated to the museums. He shared Mr. Mayo Robson's opinion that fibroids not uncommonly developed malignant character after the menopause.—Dr. LEITH NAPIER had seen, in the last four or five years, about fourteen cases where fibroids developed a rapid growth after the menopause. He believed that this and the malignant changes occurred principally in those fibroids which had their origin in soft glandular structures, and that hard fibroids generally atrophied.—Dr. HEYWOOD SMITH and Dr. PURCELL made some remarks, and Mr. MAYO ROBSON briefly replied.

Mr. F. EDGE (Wolverhampton) showed a specimen from a case of Para-uterine and Para-vaginal Tumour extending into the Left Buttock.

A resolution passed by the society with regard to the admission of homœopaths is referred to in our "Annotation" columns.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

The Diagnosis of Gonorrhœal Inflammation.—The Treatment of Enterocolitis in Infants and Young Children.

A MEETING of this society was held on Jan. 3rd, Dr. A. SYMONS ECCLES, President, being in the chair.

Dr. MCCANN read a paper on the Diagnosis of Gonorrhœal Inflammation, in which the method of obtaining pus was explained, and fuchsin was recommended as the best staining agent for the gonococcus, with eosin and methylene blue for contrast stains. The relation of the gonococcus to the pus and epithelial cells was demonstrated by photo-micrographs. A gradual process of pus cell destruction had been traced, which was partly antagonistic to the theory of Metchnikoff, and the same destructive process was seen in the epithelial cells. A large number of gonococci are never seen in conjunction with a large number of pus organisms. They are present in the pus of every untreated case at some period. Secretion free from them does not cause a gonorrhœal inflammation, but secretion containing them even in small quantities infects sensitive mucosæ with absolute certainty. The concluding remarks were devoted to the cultivation test.—The PRESIDENT said that in his experience there was not much hope of dealing successfully with gonorrhœal arthritis so long as gonococci were still to be found in the urethral discharge.—Mr. MCADAM ECCLES remarked that microscopic examination alone was often insufficient for diagnosis, while cultivation was extremely difficult.—Mr. R. W. LLOYD quoted a case of gonorrhœal arthritis in which there was a cardiac bruit, and coincident with a notable change in its character acute pyæmia was developed and rapidly proved fatal.—Dr. MCCANN, in reply, said that since good observers, such as Neisser, had found gonococci in the pus from arthritic joints he was forced to admit that a certain proportion of these cases were caused by the gonococcus.

Dr. A. W. CLEMOW read a paper on the Treatment of Enterocolitis in Infants and Young Children. The undoubtedly bacterial origin of the disease suggested rational methods of treatment, which were (1) to evacuate the intestines of their fermenting contents; (2) to combat the processes of decomposition by suitable drugs; (3) to give only such food as shall maintain strength and at the same time minimise the introduction of fresh organisms; and (4) to treat symptoms and complications as they arise. Of antiseptic drugs he preferred subnitrate of bismuth and calomel, and he deprecated the routine use of opiates and astringents. He had been much impressed with the value of intestinal irrigation, which exercises no influence upon the course of tuberculous ulceration of the intestine or ordinary cases of dyspeptic diarrhœa of infants, but may be expected to benefit true cases of enterocolitis, especially those in which the colon is largely involved. It requires to be carried out with great caution, especially when there is marked prostration, and the irrigator must not be held too high.—Dr. COLMAN referred to the possibility of accidents in irrigation. From post-mortem experiments it is deduced that two feet was sufficiently high for the can to be held in cases where the colon was softened.—Mr. MCADAM ECCLES cited two cases of perforation following irrigation employed for the reduction of invagination of the bowel.—The PRESIDENT held that in the treatment of these cases milk in any form should be discarded from the dietary for twenty-four hours, veal broth taking its place.

SOUTH-WEST LONDON MEDICAL SOCIETY.

Professional Unionism.

A MEETING of this society was held on Jan. 8th, Dr. GILBERT RICHARDSON being in the chair.

An address on Professional Unionism was delivered by

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Mr. W. G. DICKINSON, which is published on p. 149 of our present issue.

Mr. T. A. I. HOWELL referred to the difficulties which surround the whole question and pointed out that local medical societies fail to attract men who are bringing discredit on the profession.

Dr. MORGAN DOCKRELL alluded to cheap practice and underselling, and stated the root of the evil to be that the supply of medical men is greater than the demand. He thought that means should be taken to check the influx of medical students and to educate them in medical ethics; he further alluded to the necessity for reforming the British Medical Association.

Dr. ROE and Dr. BARKWELL referred to the touting of insurance companies and dispensary agents.

Mr. A. E. DODSON mentioned the evils of the out-patient system and of the lay medical aid societies, at the same time expressing sympathy with the difficulties of those commencing practice.

Mr. DICKINSON having briefly replied, the meeting terminated with a hearty vote of thanks to Mr. Benjamin Duke for the use of his house.

CARDIFF MEDICAL SOCIETY.

Exhibition of Specimens.

AT an ordinary meeting held on Jan. 3rd, Alderman Dr. EDGAR JONES, in the chair, Mr. J. LYNN THOMAS showed (1) A Hard Fibroma of the Ovary weighing 5 lb., which he had removed six months ago from a patient aged forty-one years. The fibroma had grown in conjunction with a papillomatous cyst which had been tapped five times. Fibroma of the ovary, he said, was extremely rare, and reference was made to cases recorded by Sir John Williams and Mr. Alban Doran. The skin of the abdomen at the operation was coarsely tuberculated, and the subcutaneous tissue was similar to that of elephantiasis; this condition was probably due to interference with the lymphatic circulation, as the tumour was firmly adherent to the entire anterior abdominal wall. Five months later the skin of the abdomen was quite smooth. (2) Chondro-sarcoma of the Testis from a patient aged twenty-seven years. The growth was painless until the patient had a blow, when it suddenly grew and became stationary again; its duration was three months.—Dr. J. H. REES, of Penarth, and Mr. THOMAS advised exploration to clear up the diagnosis between tumour and hæmatocele.—Mr. HERBERT COOK remarked on the extreme malignancy of sarcomata of the testis and mentioned the case of a medical friend who died eighteen months after early removal of the tumour.

The adjourned discussion upon Dr. Stewart's paper was opened by the PRESIDENT, and Dr. PATERSON, Mr. COOK, and Mr. THOMAS spoke, Dr. STEWART replying. It was hoped that the paper would be published *in extenso*, as it clearly showed the effect of civilisation, race progress and decay, upon general paralysis.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—The Devonshire Hospital at Buxton was established in September, 1858, under the patronage of the Duke of Devonshire, and, in conjunction with the ancient Buxton Bath Charity, has now developed into a hospital which contains 300 beds and encloses a central covered area half an acre in extent. The report for 1895, which was submitted at the annual meeting of the committee of management held on Jan. 4th, showed that 2562 in-patients had been received during the year, or 94 fewer than during the year 1894. The number of patients received under the powers of the Cotton Districts Fund was 343. The in-patients included 2126 cases of rheumatism or rheumatoid arthritis, 680 of which were complicated with some form of heart disease. There were also 86 cases of gout, 90 of sciatica, and 20 of surgical injuries, including 7 cases of fracture of the lower limb and 2 other cases in which amputation of the foot was performed. Of these 2562 patients, 2399 were discharged improved and 5 died. The usefulness of the Buxton mineral water in the treatment of rheumatic conditions, general and local, continues to be shown by clinical experience; the baths were used by eight out of every nine patients. The average cost per week of each patient during the year was 13*s.* 6*d.*; the total receipts have exceeded the total expenditure by £567.

Reviews and Notices of Books.

Diseases of the Chest, Throat, and Nasal Cavities, &c. Third Edition. By E. FLETCHER INGALS, A.M., M.D., Professor of Laryngology and Practice of Medicine, Rush Medical College, &c. London: Henry Kimpton and Hirschfeld Bros.

THIS is a book of 686 pages, including the index. Of these, 268 are occupied with the discussion of diseases of the lungs, heart, and circulatory apparatus, and the remaining 418 with a consideration of the nature and treatment of diseases of the throat. There are 240 illustrations in the work, of which all, except forty-nine, are intended to elucidate the text concerned with throat and nose diseases. There are also three prefaces, of which only one, the second, is dated, and the work itself carries no date on the title-page. The tone of the prefatory remarks differs. The first purports to give a "complete exposition of the subject of physical diagnosis so far as it relates to diseases of the chest, throat, and nasal passages." In the second the author states that he has carefully consulted the extensive literature of these topics, but has made no attempt to collate the various theories and methods suggested by different authors. He has limited the argument to that which personal knowledge of the diseases and *of writers* (the italics are ours) commends to his own judgment. In the third preface we are asked not to regard the book as an encyclopædic work. Of this we do not think there is much danger. If the work be intended to be a protest against too narrow a specialism, we hail with pleasure the object with which it was written. If, on the other hand, it be intended to rank as a special treatise on diseases other than those of the throat and nose, we confess that we think that the work will scarcely fulfil its author's expectation. As a not too exhaustive *réchauffé* for the elementary education of students, the portion dealing with the diseases of the chest contains much useful information concisely stated. There are points we might have criticised at greater length were we dealing with an exhaustive treatise on these subjects, such as the association of "purring tremor or thrill" with valvular regurgitation without mentioning its much more characteristic occurrence with mitral constriction, but such would manifestly be out of place here. The section devoted to diseases of the nose and throat is more complete, but even here we are surprised to find no mention of antitoxin in the treatment of diphtheria, while reference is made, in discussing pneumonia, to experiments with antipneumotoxin! Surely in an up-to-date edition of a work on diseases of the throat it is not too much to expect some reference to the subject, whether the author regards the use of that substance with favour or not. Minor matters of language are questions of literary taste and perhaps do not come within the sphere of legitimate criticism, but, while we know what it is to see a patient retch, we confess we do not quite know what it is for a patient to "gag easily." Possibly the term is derived from the German *gähnen*, to yawn, and means something covered by the previously used word "retch." By "crowding down the forceps" we gather that the author means taking a secure hold of an organ, but, while we have heard of a frigate crowding on all sail, we do not remember to have seen the term applied before to a surgical instrument. Shortly, the book is a good index or compilation of the subjects treated; the author seems to have had considerable practical experience of laryngological work, and those desiring a practical and concise manual to guide them in their daily routine will find nearly all the information they require. The fact that the book has reached its third edition proves that

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there are those who appreciate it, but the inspiration which impels an author to restate for the benefit of the profession information which is easily procurable from dozens of previous works is to us a mystery.

A Text-book of the Principles of Physics. By ALFRED DANIELL, M.A., LL.B., B.Sc., F.R.S.E. Third Edition. New York and London: Macmillan and Co. 1895. Price 21*s*.

THE importance of a course of pure physics to the medical student is now recognised. It should, however, be the basis of his studies, and not serve merely as a subject which is to test his power of passing examinations. It will help him to a clear understanding of the vital processes, since they are dependent upon physical phenomena, and thus enable him, when he continues his studies in the alleviation of the ills and pains of the human race, to found his diagnoses and treatment on a really rational basis. How else, without a clear conception of the properties, of the states, and of the constitution of matter, of molecular forces and action, of sound, heat, optics, and electricity, can he be expected to understand the physiology of the human organism, embracing such vital subjects as blood-pressure, the diffusion of gases and liquids through membranes, osmosis, respiration, the visual and aural faculties, the nervous system, the acquirement and expenditure of force within the body, and so on? And what an anomaly it was when only a few years ago a student of medicine could proceed to the degree of M.D. in some of our universities with practically no training in this subject, the principles of which underlie each and all of the phenomena just enumerated. Professor Daniell has had a considerable share in repairing the breach, and the first edition of his well-known work on Physics, published in 1884, came as a proof of his conviction that this branch of knowledge was neglected to a regrettable extent and very much to the detriment of medical progress. As he tells us in the preface, the book was designed primarily as a contribution to medical education; it is now recognised as fulfilling a wider sphere of usefulness, and is justly reckoned amongst the leading text-books on physical science. By an intelligent perusal of the work the medical student is put in possession of the various physical principles the clear comprehension of which will throw light upon, and rescue from chaos, the multitudinous facts which are involved in the great physiological processes. Further, it will serve as an introduction and companion to practical work. Thorough knowledge, as the author puts it, must be drunk in by the eyes and the ears and absorbed by the finger-tips, and the true use of a book of this kind is not to replace practical work, but to economise the labours of the student. The scope of the work precludes any lengthened treatment of matter in detail in the space at our disposal, and we must be content to indicate its plan. The preliminary knowledge of physical principles is not assumed, and the reader is helped by the fact that prominence is given to the type in those paragraphs which serve to link together general principles, and, an insight into them having been gained, he can then proceed to the paragraphs in smaller type which give an application—and are, in fact, an amplification—of these principles. After a generalisation, in the introductory chapter, of the sciences which are comprehended under the title "physical science," the author proceeds in the succeeding chapter to discuss time, space, and mass, and in Chapter II. passes to the notions derived from the preceding. Measurements (length, surface, volume; time, mass, and force), work and energy, kinematics, kinetics, attraction and potential, gravitation and the pendulum, matter, solids, liquids, and gases, follow in due order, till in Chapter XIII. the nature of heat is discussed, then sound, and in natural sequence comes a section on ether waves, Chapter XVI., on electricity and magnetism, concluding the series. As an instance of the conformity of the present edition with recent developments might be mentioned the recent marvellous phenomena connected with alternating currents and the beautiful experiments of Mr. Nikola Tesla. On the other hand, we could find no reference to modern research bearing on the properties of matter at very low temperatures, or on the phosphorescence of bodies submitted to intense cold; and, again, in a description of instruments for measuring high temperatures the potassium and sodium alloy thermometer of recent invention is not included.

Physics is an abstruse subject and an exceedingly comprehensive one, and to deal with it lucidly in the dimensions of a text-book like this without serious omissions is an accomplishment of no mean degree. Professor Daniell is both master and a master exponent of his subject.

Dictionary of National Biography. Edited by SIDNEY LEE. Vol. XLV.: Pereira—Pockrich. London: Smith, Elder, and Co. 1896.

AMONG the many interesting memoirs in this volume the most striking are those of three strenuous upholders of Britain's supremacy during very troublous times. William Pitt, the first Earl of Chatham, was born in London in 1708, his father being a landed proprietor in Cornwall. In 1735 he entered Parliament as representative of Old Sarum near Salisbury, and soon displayed unusual powers of oratory. His first administration lasted, with an interval of eleven weeks, from December, 1756, to October, 1761, during which time he had the entire direction of foreign affairs and of the war against France and her allies, which was waged in Europe, America, and India. He again formed a Ministry in July, 1766, and in the following month was created Earl of Chatham; but his health was quite shattered, and he resigned office in October, 1768. In April, 1778, he was seized with a fit in the House of Lords whilst speaking on behalf of the disaffected American colonists, and he died in the ensuing month. His eldest son, and successor in the title, followed a military career and was remarkable chiefly for his complete failure as commander of the Walcheren expedition. His second son, William Pitt, born in 1759, became Prime Minister in 1783, before he was twenty-five years of age, and remained in office until March, 1801. He again formed a Ministry in May, 1804, and continued at the head of the Government until his death in January, 1806, his last illness being apparently induced by the news of the battle of Austerlitz. Sir Thomas Picton was born in Pembrokeshire in 1758 and entered the army in 1771. He was military governor of Trinidad from February, 1797, to June, 1803, and was subsequently for some weeks commandant of Tobago. Then, just as in recent years, the judicial authorities of those islands committed irregularities, and Picton was involved in litigation in the English courts. In 1810 he received an important command as Major-General under Wellington in Portugal, served throughout the campaign, and, in the words of his biographer, "proved himself Wellington's right hand in the Peninsula." At Waterloo, on June 16th, he was struck by a ball which fractured some of his ribs, but he concealed the wound from everyone except his servant. On June 18th, whilst heading a charge of his men, a ball struck him on the temple and he fell dead.

Twenty members of the medical profession appear among the subjects of biography. Henry Plumptre was born in Nottingham, studied medicine at Cambridge, and graduated as M.D. in 1706. He was admitted a Fellow of the College of Physicians of London in 1708, delivered the Gulstonian and Lumleian Lectures and the Hunterian Oration, was censor, registrar, and treasurer of the College, and served as President for six years from 1740 to 1745. He was also physician to

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St. Thomas's Hospital, and he died in 1746. His son, Russell Plumptre, born in 1709, studied medicine at Cambridge, graduated as M.D. in 1738, and in 1741 was appointed Regius Professor of Physic at Cambridge; he died in 1793. William Pitcairn was born in Fifeshire in 1711, studied medicine at the University of Leyden, and graduated as M.D. at Rheims. The University of Oxford gave him the degree of M.D. in 1749, and he proceeded to London, where he eventually obtained a very large practice. He became a Fellow of the College of Physicians of London in 1750 and was Gulstonian lecturer and several times censor. He was elected President in 1775 and every following year, till he resigned in 1785. He was appointed physician to St. Bartholomew's Hospital in 1750, and in 1784 was elected treasurer, after which he lived in the treasurer's house in the hospital, but had also a country residence, with a botanical garden of five acres, in the now densely populated locality of Upper-street, Islington; a ward in St. Bartholomew's Hospital still bears his name. Dr. Pitcairn died at Islington in 1791 and was buried in the church of St. Bartholomew-the-Less, within the hospital walls. Robert Pitt was born in Dorsetshire in 1653, studied medicine at Oxford, graduated as M.D. in 1682, and was elected Fellow of the Royal Society in the same year. In 1687 he was admitted as a Fellow of the College of Physicians of London and was censor in 1687 and 1702. He was physician to St. Bartholomew's Hospital from 1697 to 1707 and took an active part in the controversy which followed the establishment of a dispensary by the College of Physicians in 1696. He published several works, two of which demonstrated the uselessness of various medicaments which were at that time much in favour. He died in 1712. Charles Peters was born in London in 1695, studied medicine at Oxford, was elected Radcliffe Travelling Fellow in 1725, and graduated as M.D. in 1732. He published in 1720 an edition of Fracastoro's Latin poem on Syphilis. He was elected a Fellow of the College of Physicians of London in 1739 and was censor in 1744. He was also physician extraordinary to the King, physician-general to the army, and physician to St. George's Hospital. David Pitcairn was born in Fifeshire in 1749, being a nephew of Dr. William Pitcairn, already mentioned. He studied at the Universities of Edinburgh, Glasgow, and Cambridge, graduating at the latter as M.D. in 1784. He was elected a Fellow of the College of Physicians of London in 1785, and was censor, Gulstonian lecturer, and Harveian orator. He was physician to St. Bartholomew's Hospital from 1780 to 1793, and was the first to discover that valvular disease of the heart was a frequent result of rheumatic fever. He enjoyed a large private practice and died in 1809. Jonathan Pereira was born in London in 1804, studied medicine at the Aldersgate-street School, became a Licentiate of the Society of Apothecaries in 1823, and was at once appointed apothecary to the dispensary of St. Bartholomew's Hospital. In 1840 he obtained the diploma of M.D. from Erlangen and was appointed assistant physician to the London Hospital. In 1845 he became a Fellow of the Royal College of Physicians of London. Dr. Pereira was an eminent pharmacologist and lecturer on materia medica and chemistry. Of his numerous works the principal one was "The Elements of Materia Medica." He died in 1853. William Pirrie was born in Aberdeenshire in 1807 and studied medicine in the Universities of Aberdeen and Edinburgh, graduating at the latter as M.D. in 1829. "Returning to Aberdeen in 1830, he was appointed lecturer on anatomy and physiology in the joint medical schools of King's and Marischal Colleges. On the separation of the schools in 1839 he became the first Regius Professor of Surgery in Marischal College, and when they were again united in 1860 he continued to teach as Professor of Surgery in the University of Aberdeen. He resigned his chair in the summer of 1882 and died on Nov. 21st in the same year." He was the author of a treatise on the "Principles and Practice of Surgery," which passed through several editions.

LIBRARY TABLE.

Rural Water-supply: a Practical Handbook on the Supply of Water and Construction of Waterworks for Small Districts. By ALLAN GREENWELL, A.M.I.C.E., and W. T. CURRY, A.M.I.C.E., F.G.S. London: Crosby, Lockwood, and Son. 1896.—This manual had its origin in a series of articles which appeared in the *Builder* between July and December, 1894. We may take it, therefore, that the subject-matter, having already been published, has been exposed to criticism, and that the authors have taken advantage of this fact, as well as of the advances since made, when revising the work prior to its publication as a whole. It deals chiefly, though not exclusively, with the engineering side of the question, of which it gives a clear and intelligible account. We should like to have found included in it a chapter on where to search for water, and on the value (?) of "water-finding by means of the willow wand." As the quality of a water is frequently referred to, the addition of a short paragraph also on the significance of the results of chemical analyses would have proved useful. The importance of the process of filtration by sand and the nature of its action in removing organisms are properly emphasised, although the instructions bearing on the care and cleansing of filters are not entered into with that detail which the importance of attention to those points demands. The chapter on the corrosion of pipes and the properties of some water-supplies in respect to dissolving lead is thoroughly practical, pointing out the conditions under which water is likely to act upon lead and the remedies which can be successfully applied. On the whole we commend the book, because we think it will serve as an excellent guide, especially in rural districts, to those who require instruction with regard to the conveyance of water from its source and its ultimate distribution.

Sewerage and Sewage Disposal of a Small Town. By E. B. SAVAGE, A.M.I.C.E. Illustrated. London: Biggs and Co. 1895. Price 5*s.* 2*d.*—This is a capital little book for young engineers. It is extremely practical, giving clear and concise particulars of the system of conveying sewage and of the principal methods in vogue for its disposal. These particulars are illustrated in an excellent series of model plans drawn to scale. As a type of precipitate processes the author gives the alumino-ferric process, but he omits to add an analysis of the effluent which would convey to the reader some idea of the extent of purification which this process effects. We observe a slip in the description of the manner in which it purifies. Thus, after the sludge has subsided, he says that a clear and inodorous liquid remains, still retaining the oxygen originally contained in the sewage. Surely it should be nitrogen. He has purposely refrained from entering into the question of sewage purification by bacterial agencies, since these processes, "although destined greatly to modify, if not to entirely revolutionise, can as yet be scarcely regarded as sufficiently developed to be applied by engineers in dealing with the sewage of towns." He adds nothing as to the prospect of ever turning sewage to account. The book is an admirable digest of present purification processes, and is sound in engineering details.

A Plea for a Simpler Life. By GEORGE S. KEITH, M.D., F.R.C.P. Edin. London: Adam and Charles Black. 1895. Price 2*s.* 6*d.*—"We have seen that in sickness neither medicine, nor alcoholic stimulants, nor food (*sic*) are necessary as a general rule, but, on the contrary, are often absolutely

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injurious. ..... I have long looked on hot water as the most real stimulant that we have." These quotations, from pages 39 and 42, comprise the essentials of the author's system of therapeutics, which he briefly expounds in a pleasant style and defends with the courage of one who is convinced, and whose personal habits are in accordance with his somewhat exceptional views. The first of these passages can hardly be taken literally, otherwise the unfortunate patient would fare even worse than those under the care of Dr. Sangrado. It is a relief to learn that a favourite prescription with the author in most cases of illness is a mixture of well-diluted milk, lime-water, and white of egg, combining both food and medicine. Dr. Skene Keith began medical study in 1836, took the degree of M.D. at Edinburgh University in 1841, and for the last forty years has used a sparing dietary, especially as regards animal food, to which abstemiousness as well as to complete avoidance of aperients he attributes the fact that he is now "a good specimen of an old man who lives a most simple life." The book is well worth reading, but the cautions against indulging in the pleasures of the table ought surely to have been supplemented by diet tables or some other instructions for the guidance of individuals in ordinary health who may be desirous of leading "a simpler life."

The Methods of Microscopical Research. By ARTHUR C. COLE, F.R.M.S. Second edition. pp. 200. London: Baillière, Tindall, and Co. 1895.—This work conveys in clear and simple language information with reference to the hardening and embedding of animal tissues, and the injecting of bloodvessels, which will be most useful for the beginner. The section on Staining is very inadequate. Many modern methods are entirely omitted, and the instructions for the use of each reagent are very meagre. The concluding chapters on microscopic drawing and photo-micrography are clearly written and will be very useful, and the hints about details of technique throughout the book are evidently the fruit of long experience.

MAGAZINES.

The Practitioner.—This excellent journal has with the new year been enlarged to 112 pages, owing to the addition of a series of articles on Heroes of Medicine and a *résumé* of Medical Literature for the Month. The editorial pages lead off with a disquisition upon the Monstrous Regiment of Nurses—"regiment" being used in its strictly etymological sense. It would seem that the profession, having been delivered from the Queen Log or Gamp rule, are now groaning under the Queen Stork dynasty of the modern nurse. Truly the woes of the modern medical man are as the sands of the sea for multitude. These are, perhaps, but imaginary, but the cases of Surgeon-Captain Fowler and Mr. F. J. Lea, referred to next, are very real troubles, and we sincerely hope that when the military and naval authorities can turn their attention to matters connected with home the case of these officers, who erred (if, indeed, they erred at all) from excess of zeal, may be favourably considered. The original communications include one from Sir William Roberts on Sugar-testing; some interesting cases of Hydatid Mole, by Dr. Champneys; the Curability of Hernia, by Mr. Golding-Bird; Renal Diseases, by Dr. W. M. Ord; and Notes on Empyema, by Dr. Crawford Renton. The hero for the month is the great Vesalius, and the Medico-Literary Causerie "slates" that silly and offensive production, "Les Morticoles," about which we expressed our views on Dec. 8th, 1894.

The Edinburgh Medical Journal.—The first article in this periodical is Dr. Freeland Barbour's dignified and courtly valedictory address to the Edinburgh Obstetrical Society on the occasion of his resigning the presidential chair. Dr. J. W. Ballantyne contributes an inquiry into the Cause of Monstrosities; and a most interesting paper it is, full of out-of-the-way information gleaned from the classics, mediæval writers, and authors like Licetus. Surgeon-Major Macdonald relates a case of Abdominal Transfixion by an Elephant's Tusk. The patient's abdominal cavity having been carefully cleansed and sutured, he recovered. Dr. Robertson continues his valuable series of papers on the Pathology of the Nervous System in relation to Mental Diseases.

The Medical Chronicle, Owens College.—Dr. H. D. Rolleston has an interesting paper upon that distressing, though fortunately not common, disease—Primary Carcinoma of the Larger Bile-ducts. For treatment he recommends as affording great relief in cases where the common duct is involved, a cholecystenterostomy, so as to prevent bile being dammed up in the liver. Dr. W. Milligan has a paper upon Tuberculous Disease of the Middle Ear, and Mr. W. R. Williams one on the Pathogenesis of Cancer.

The Humanitarian for January has an article on Cycle Riding and Racing for Women by Mr. E. B. Turner. The latter form of amusement the author rightly condemns, and the former praises, given the following: "Moderation, again moderation, and loose clothing." To which we would add a very careful regard in respect of a proper form of saddle.

The Photographic News.—This useful weekly (price now 1*d.*) has with the dawn of a new year been enlarged, and several new and attractive features have been introduced. The first number contains an instructive and comprehensive series of well-illustrated articles which are sure to engage the interest of the amateur photographer.

Journal of Mental Science. January, 1896.—The current number of this quarterly contains matter of important clinical interest which should prove acceptable to the general body of the profession. The articles alluded to are the following: Mental Symptoms occurring in Bodily Diseases, Mental Changes in Graves's Disease, Mental States associated with Visceral Disease in the Sane, and Some Points in the Relation of Diabetes to Insanity. The recent proposals regarding habitual drunkards are ably discussed, both from the legal and medical standpoint. In the Psychological Retrospect will be found Professor Fournier's views regarding the Relation of Syphilis to General Paralysis.

Analytical Records
FROM
THE LANCET LABORATORY.

STERILISED MILK.

(THE PURE BACTERIA-FREE MILK ASSOCIATION, LIMITED, "NETHERLAND." LONDON AGENCY: S. DUSSELSMA, 48-48A, OUTER TEMPLE CHAMBERS; 222-225, STRAND, W.C.)

WE have received two samples of milk in glass-stoppered bottles, one of which has been kept for six months during the hottest part of the year, while the other had been recently prepared. Both were quite sterile. Even when placed in the incubator bath—i.e., at blood-heat—for a week no objectionable developments occurred, the milk in both cases being quite sweet and in good condition at the end of the experiment. The samples contained no trace of objectionable preservatives. In spite of the sterilising process, which is carried on at a temperature a little higher than the boiling point of water, the taste was good, and freer than is usually the case from "boiled" or "scorched" flavour, and the colour of the milk had changed to hardly any appreciable extent. There is

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no doubt that the success with which this milk has been preserved is due to the particular care which the purveyors take to first free the milk from suspended impurities—which include dirt from the udder, legs, and skin of the cow, or from the hands of milkers, and probably dry particles of dung and dust from the stables—by screening it in a special manner. This precaution is certain to exclude many agencies which excite unfavourable changes in milk, leading to sourness and putrefaction. The quality of the two specimens may be gathered from the following results of our analysis:—New sample: Specific gravity, 1031; total solids, 12·26 per cent.; fat, 3·50 per cent.; non-fatty solids, 8·76 per cent.; ash, 0·78 per cent. Sample six months old: Specific gravity, 1032; total solids, 11·86 per cent.; fat, 2·70 per cent.; non-fatty solids, 9·16 per cent.; ash, 0·68 per cent. Thus, while of fair average quality, these specimens may be trusted as free from the objectionable contamination to which ordinary milk is constantly being exposed.

RADNOR (QUEBEC) SPRINGS MINERAL WATER.

(RADNOR WATER CO., NEW YORK LIFE BUILDING, MONTREAL, CANADA. AGENTS: CUNNINGHAM, SHAW, AND CO., 21, WATER-STREET, LIVERPOOL.)

The Radnor spring was discovered two years ago, during a search for a source of drinking-supply for the use of workmen connected with a large iron foundry. Eventually water was struck at a great depth, after encountering a hard gneiss rocky slab 100 feet in thickness. It proved to be under considerable pressure, since a 4-inch stream was projected some 4 feet into the air, the force proving sufficient to drive it to a considerable distance along the service-pipes to the town. Its composition presents some points of interest. The saline constituents are chiefly common salt (100 grains per gallon), sulphate of magnesia (8·5 grains per gallon), and bicarbonate of soda (14·7 grains per gallon). It also contains 22 grains of carbonate of lime in solution in carbonic acid, the total solid matters amounting to 167·16 grains per gallon. Bromide of sodium occurs in very distinct quantity, the water turning quite yellowish-brown when chlorine water is added to it. The liberated bromine may be readily extracted with chloroform. The water is brilliant, pleasantly sparkling, and of mild saline taste, and is entitled to rank with the well-known waters of the alkaline carbonated and saline type, which are useful as beverages in cases of acidity and likely to serve as a diuretic and mild aperient when taken freely.

ROLLED OATS (ROYAL STANDARD BRAND).

(JOHN INGLIS AND SONS, LEITH, MIDLOTHIAN. AGENTS: JOHN ALEXANDER AND CO., 61, MARK-LANE, E.C.)

These consist of oats flattened into thin flakes and submitted to a new process by which the starch is partly torrefied, a mode of treatment that is said to prevent the development of that bitter flavour which is a well-known objectionable feature of oatmeal that has been kept for some time. This treatment, coupled with the rolling process, adds very materially to the digestive properties of this, the most nutritious, cereal. A porridge made with this preparation possessed a fine, rich, oaten flavour. It affords an excellent and highly nourishing article of diet.

THE NORFOLK EMULSION OF COD-LIVER OIL WITH HYPOPHOSPHITES.

(J. ROBINSON AND CO., 13, ORFORD-HILL, NORWICH.)

This preparation presents the appearance of a perfectly uniform emulsion when examined with the microscope. It contains no alkali, but, on the contrary, is slightly acid to test paper. It is free from the repulsive taste of cod-liver oil, which has been skilfully disguised by the selection and careful addition of aromatic substances. Its value, of course, is enhanced by the addition of hypophosphites, the presence of which we had no difficulty in confirming.

New Inventions.

THE KIESOW PATENT SAFETY LAMP.

In the report of THE LANCET Analytical and Sanitary Commission on Dangerous Paraffin Lamps, which appeared in our issue of Jan. 4th, 1896, there was described a safety hand lamp costing 6½*d.* (No. 18 in the report) which was found by our Commissioners to be on sale at most of the oil shops visited by them. Although this lamp was reported as safe, our Commissioners were led to recommend some slight modifications in its construction which, in their opinion, would make it as secure against accident as a paraffin lamp could possibly be. We have since learned that these structural improvements had already occurred to the makers, Messrs. Kiesow and Co., of 25, Fore-street-avenue, who have recently placed these improved lamps on the market in accordance with the conditions of safety set forth in the report. First and foremost, this lamp is provided with a wick tube projecting nearly to the bottom of the reservoir, and, further, the wick tube, being S-shaped, acts as a safety trap when the lighted lamp is upset (see illustration, Fig. 1),

FIG. 1.

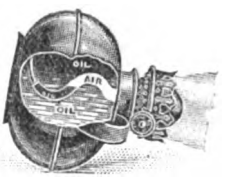
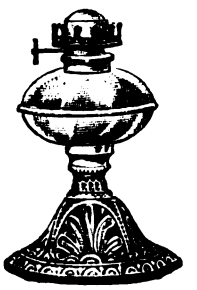


FIG. 2.



and oil cannot possibly escape; the flame simply and quietly goes out. In the earlier pattern of this hand-lamp, as with the one examined by our Commission, the base, as was pointed out, was too small in comparison with the size of the reservoir; it is now much broader, and the chance of the lamp being upset by trivial occurrences is small. The joint connecting the burner to the reservoir, although not a screw, is, we think, an effective and safe one. It differs in a very important detail from the ordinary bayonet catch. The small metal clamps, which grip a projecting collar in the mouth of the reservoir, turn in a perfectly horizontal direction, and in a turn of about two-thirds of an inch the burner is made quite secure, a small notch serving to prevent the joint being turned too far. The mouth of the reservoir to which the burner is thus firmly attached is made in one piece, and is produced by a series of ingenious "stampings" from a single disc of metal. The ordinary bayonet catch of many lamps was condemned by our Commission because these catches or pins were found to turn in an upward direction along and beneath a fixed soldered wire in an inclined plane. The tendency of these catches is, therefore, to slide back again, especially when they are oily, so that the burner is readily detached when the lamp is tilted—an occurrence which actually happened in one experiment with another lamp described in the report of our Commission. The Kiesow safety lamp, therefore, as it is now modelled, fulfils all the requirements of a safe lamp so far as our experiments go, and it cannot be too widely known that such a lamp can be purchased for so moderate a sum as 6½*d.* at the common oil shops. It should be added that table-lamps of the same safe construction are made at prices within the reach of the poorer amongst us. Fig. 2 represents such a lamp, costing (retail) 1*s.* 9*d.* Lamps of the same type, but of higher finish, are also procurable at correspondingly higher prices, as from 4*s.* to 6*s.*, whilst the makers will soon be prepared to place a duplex lamp in the market the wicks of which will be provided with a double S-tube. It should be the duty of the London County Council, we venture to think, to stamp lamps—which, like the one just described, are safe—

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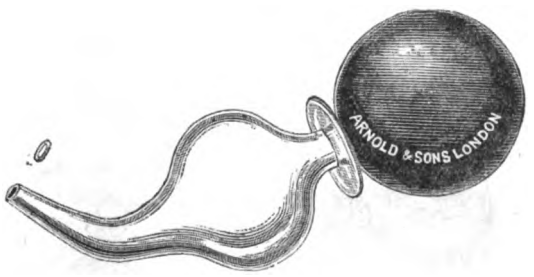
with some mark which shall afford the public a guarantee that they are using a lamp which is as far as possible free from danger.

A NEW URETHRAL SYRINGE.

THE obstinacy and relapsing character of urethral discharges, in spite of the very numerous drugs which have from time to time been used, each highly vaunted in its day, but only to fall into desuetude after a time, help to convince me that it is not the medicament which is so much at fault as its mode of application. No surgeon should disparage a drug until he sees personally how it is used and how long in contact with diseased parts. A drug is efficacious not so much in proportion to its strength as to its length of application. In the case in point strong astringent lotions do more harm than good by coagulating the albuminous substances on and in the mucous membrane, thus building, as it were, a fortress above and around a micro-organism itself more resistant than the membrane on which it exists, and, moreover, inclined to extend to the papillary layer at the earliest stages of urethritis. The accompanying illustration represents a syringe which I know will prove to be more useful than the



ordinary form. Only one person in 100, perhaps, knows how to inject properly with the latter. Its nozzle is ill-shaped, and its piston never fits uniformly, so that, firstly, the fluid injected escapes prematurely, and, secondly, even if the piston fits, the urethra is so suddenly distended by the jump of it as to create irritation. The meatus (and part of the urethra behind it) is a vertical slit varying in size. The nozzle of the syringe I beg to introduce to the profession is hence oblong in transverse section, and is conical; it will, therefore, fit and plug any urethra, nor need the lips of the latter be pressed around it. The fluid is in contact with glass only, hence it is always aseptic. I direct the syringe to be used by holding the flange between any two fingers, whilst the thumb of the same hand presses on the elastic ball. With the idea of prolonging the application of the medicament I am experimenting with a clip to hold the lips of the meatus together, so that possibly the patient may go about for a time retaining the solution in his urethra. The syringe is neatly made for me by Messrs. Arnold and Sons, and can, of course, have any capacity.

Finsbury-pavement, E.C. JAMES MACMUNN.

THE VACANCY IN THE GENERAL MEDICAL COUNCIL FOR A DIRECT REPRESENTATIVE FOR IRELAND.

THIS contest continues to excite a large amount of interest and attention. As a matter of impartiality we subjoin communications from our various correspondents.

Our Dublin correspondent writes:—

Considerable interest is still being shown in Dublin and elsewhere in the candidature for the direct representation of Ireland on the General Medical Council, although the time fixed for the election has been indefinitely postponed. Dr. Heard, who has filled the office of Registrar of the Irish Branch Council for many years, has recently resigned, and, pending the appointment of his successor, the arrangements for filling the vacancy on the General Medical Council have been delayed. A meeting of the Irish Central Counties' Medical Association was held at Mullingar on Friday, the 10th, when the following resolution was carried:—

Resolved—That we, the members of the Central Counties' Medical Association of Ireland, considering that we, the provincial medical men of Ireland, should be represented on the General Medical Council by a member of our profession disassociated from the medical schools of Dublin or Belfast, and representative of our own interests, do support the candidature of Dr. MacDonnell, of Dundalk, who has already gained the confidence of his medical brethren while President of the Irish Medical Association.

Our Belfast correspondent says:—

Dr. Cuming's candidature is making most satisfactory progress, and already over 360 medical men have joined his general committee. This is all the more remarkable as he was late in the field and did not canvass before Dr. Kidd's death. It is now quite apparent that Dr. Cuming is the strong provincial candidate, and that, as his executive committee state in their circular, "a favourable opportunity now exists of wresting the representation from a metropolitan candidate." It is understood that the Londonderry (north-west) branch of the British Medical Association at their late meeting passed a resolution pledging the members to vote for a provincial candidate.

From our Cork correspondent we have received the following:—

The election of a direct representative on the General Medical Council is looked forward to with considerable interest in Cork and surrounding districts, especially as it is hoped that an energetic representative may influence the Council in taking some action with regard to certain medical practitioners who do not hesitate to put themselves in opposition to the bulk of the profession in their fight with the clubs—a fight which many consider is absolutely essential to the maintenance of the dignity of the profession to which we all belong. There is also a very decided opinion that the representative should be some gentleman resident in the provinces, as all the other representatives reside in Dublin, and it has been felt that the tendency to centralise in the metropolis all medical appointments of honour and emolument has worked unfairly to the larger body of capable provincial practitioners. In this connexion it may be pointed out that Dublin monopolises an entirely disproportionate number of examinerships of the Royal University. There is surely not a very great disparity in the number of medical students from Cork and Dublin presenting themselves for the degrees of the Royal University, yet there are only three medical examiners from Cork, whilst Dublin has as many as fifteen. The senate of the Royal University appoints the examiners, and the great majority of the senators reside in Dublin or its vicinity. It is well known that a distinguished representative of England on the General Medical Council considers this subject to be one worthy of the attention of the Council in the interests of medical education; it is not surprising, then, that the members of the profession in the south of Ireland have taken active measures for the purpose of securing the return of a representative who would be prepared to support provincial interests, and a meeting was held last Saturday for the purpose of discussing the whole question. It was generally recognised that a Dublin candidate would be sure to win if the three provincial candidates should persist in going to the poll, and it was considered very desirable that some means should be adopted by which two of the three should be induced to retire. The following resolutions, which speak for themselves, were unanimously adopted, and there is every reason to believe that the prudence of the course suggested will commend itself to each of the provincial candidates. It was resolved:—

1. "That in the opinion of this meeting a direct representative of the profession in Ireland should be chosen from the provincial practitioners, inasmuch as we believe Dublin is already fully represented on the Council through its universities and colleges. We therefore pledge ourselves to support a provincial candidate."

2. "That this meeting is of opinion that it is most undesirable for three provincial candidates to go to the poll, and with this view we call on the three provincial candidates to decide by a preliminary poll which will have the greatest number of promises, and that we pledge ourselves to vote for the candidate who obtains the greates amount of support."

3. "That we request the medical practitioners of the city and county of Cork not to pledge their votes until a single provincial candidate has been selected by a preliminary poll."

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THE LANCET.

LONDON: SATURDAY, JANUARY 18, 1896.

WE publish two addresses to local medical societies which show how deeply the profession is stirred by the questions which we have lately raised in our series of articles on medical clubs and the various and hard conditions under which a very large proportion of the medical work of the country is done. These addresses were delivered respectively by Mr. W. G. DICKINSON before the South-West London Medical Society and by Mr. FRANK STURGES before the Beckenham Medical Society, of which he is President. It is gratifying to us to think that both gentlemen should have found their text and their inspiration in the articles to which they both so generously allude; and it is equally so to be able to say that both addresses show a personal grasp of the subject in all its bearings, a thorough fulness of detail as to the evils under which as a profession we labour and the remedies for them which must be applied if the profession is to be saved from degradation and even from destruction. We cordially commend both addresses to our readers and shall be glad to be the medium for publishing similar ones that may be delivered in future. In both of them the point seems to be emphasised, that if the profession is to be kept in its old lines it must be by *local* organisation. We think that at all events for the present this is the proper line to follow, though the time may come when it will be necessary to join forces. The General Medical Council may be able to do something more than it has yet done in this matter; and certainly the medical corporations and the British Medical Association can do more. But even when they have done their most the chief remedy now to be relied on in any locality must be the local public opinion of the profession as expressed in local societies, or rather in the one local society which every resident should make a point of joining. Where such societies do not yet exist they should be created without delay. It is astonishing how soon such societies can be brought into active life and work. Mr. STURGES says: "Our energetic secretary, acting as recruiting-sergeant, worked to such purpose that in less than a month the Beckenham Society was an accomplished fact, and, being formed, if I read it aright, it is not our intention to be a mere figure-head." This is the example and spirit for each locality to imitate. Few localities are without a man that would make "an energetic secretary," and the work to be done is such as can only be done on the spot.

Mr. DICKINSON has supplied us with a phrase defining our object—viz., "professional unionism." He defends the principle of combination, which, indeed, is everywhere approved; but he is properly careful to discourage all that is unseemly in the methods of trades-unionism. Whatever compulsion we may need to apply to working men or their societies, or to any professional brother who seems tempted to advance his own interests at the expense of those of his profession, must be applied with respect to our own dignity, to the nature of our calling, and to the fact that we deal with cases of life and death. But, with due regard to all these, it is possible to bring great influence to bear alike on our clients of the working classes and on our medical brethren. We shall not go far wrong, or incur the disapproval of the reasonable in any class, if we take pains as a united profession to study in every locality the conditions of society and adapt our terms of professional remuneration to the means of the people.

As Mr. DICKINSON says well, "no man is altogether insensitive to the opinion of his followers, and the better his position the more sensitive he is." Therefore he makes a most proper appeal to seniors and consultants to help in this matter. They may have no personal interest in it; but they are the men of repute and will have all the more influence from being personally disinterested. They know that medicine cannot be followed as a profession without continuous education and study, and that the welfare of the profession in all its amenities is dependent on the mutual regard and coöperation of members practising in every grade of society. They can help immensely in the demand for the abolition of touting, of canvassing, and of commercial companies and lay proprietors of clubs, who exploit medical practitioners as if they were so many coolies to be used to make dividends. The working classes are not ungenerous; they are in a condition of unprecedented prosperity; and medical practice is more than ever valuable to them. It should not be permitted that isolated medical men should be allowed to assist them to lower the terms and conditions of medical service without feeling the full weight of the censure of every "man of repute" in his own locality.

OUR contemporary, the *Spectator*, in summing up the results of the labours of the late M. PASTEUR, expressed lately a doubt whether their net effect had been for the benefit of humanity. The writer seems to think that the impulse given to vivisection and the consequent lowering of tone regarding the relation of man to the lower animals, which have (it is alleged) followed M. PASTEUR'S successes in experimental research, must be set as such grave deductions from the worth of his labours as to leave the final balance uncertain. We confess we contemplate this expression of opinion on the part of an able and enlightened journal with feelings of the most lively surprise and the deepest regret. If such views prevail in quarters where a real insight into the motives, methods, results, and prospects of modern science might be fairly anticipated, what can we expect from the mass of men who are ignorant of these things and whose prejudices are so readily excited against anything that is novel and unfamiliar? The future of biological research in Great Britain is, indeed, gravely imperilled if the leaders of cultured opinion question its moral *raison d'être*, dispute its achievements for humanity, and allow its most brilliant exponents to go down to the grave with praise and blame so nicely balanced that we are left hesitating whether their life-work is to be reckoned among those "actions of the just" which "smell sweet and blossom in the dust," or among deeds

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which have lowered the tone and smirched the ideals of civilised humanity. Regarding M. PASTEUR personally, we are not inclined to enter upon any controversy. A life of incessant and unwearied labour for the advancement of knowledge and the mitigation of the heavy load of human suffering; a life of much endurance and physical weakness, but of ardent toil and high achievement; a life full of encouragement for a desponding and pessimistic age—such a life needs no defence and can well dispense with praise. But we feel a deep and genuine interest in combating the general principle on which the *Spectator* bases its criticism of M. PASTEUR. That principle would appear to be that the greatest achievements for humanity are too dearly bought if they serve to popularise and extend the practice of scientific experiments upon living animals. This was not always the leading objection to vivisection. There was a time when the anti-vivisectionist argument rested mainly upon a peremptory denial that any real and permanent benefits had accrued from the practice. It was argued that vivisection had seriously impeded and misled medical science by suggesting false analogies and enticing it along paths that lead nowhere. Such arguments seem to be now abandoned, the progress of modern biology and pharmacology having, indeed, deprived them of all meaning. It is even said now that the very successes of vivisection constitute the present danger, and that it specially behoves us to be on our guard lest we blind ourselves to the moral objections to a practice which holds out such dazzling enticements. We leave the anti-vivisectionists to reconcile, if they can, their present with their past attitude on the subject. Logical consistency is not their strong point, and we have no doubt they will again shift the issue if such a course should appear to be demanded by the exigencies of their position.

The real contention just now is this. Vivisection has conferred benefits on humanity and offers the prospect of further and probably even greater benefits in the future; but we have no right to purchase those benefits at the cost of suffering to the lower animals, and if we do so our moral nature suffers in the process, and in the long run the loss to humanity will be greater than the gain. This is a perfectly intelligible argument and one which we regard with unfeigned respect. Cruelty to the lower animals is one of the basest and meanest of vices, and, as CHARLES DARWIN said upon a memorable occasion, is "worthy of detestation and contempt." The real question turns upon what is meant by cruelty. The almost universal practice of humanity permits the killing of animals for food. It is idle to contend that this does not involve immense suffering. The modes of slaughter employed are not, and perhaps cannot be, easy and painless. Even if they were, the mere deprivation of healthful and joyous existence—such as that of the young lamb upon the hillside—must be reckoned cruelty, if we are to be strict in our definition of the term. But we have grown accustomed to these things, and we eat our dinners without any qualms regarding our moral right to our beefsteak or our leg of mutton. Further, the methods of preparing animals for slaughter and for the table are often such as involve great and unnecessary suffering, but our moralists are silent upon the subject of *pâté de foie gras* and crimped salmon. Stronger still is the case of sport. Hunting, fishing, and shooting are all pursued at the expense of much suffering on the part of the lower animals, and the argument is, of necessity, in many cases at least, wholly inapplicable. We are not disposed to assail sport, in defence of which much may be said, but we are deliberately of opinion that there is more suffering inflicted on the English and Scotch moors during a single week in September than in all the biological laboratories of Europe in a year. Can vivisection be condemned and sport exonerated? We hold that the case in favour of the former is incomparably stronger than that in favour of the latter. The advancement of knowledge, the mitigation of human misery, the prevention of disease—surely these are infinitely higher and nobler motives for the infliction of pain than mere healthful exercise and transient enjoyment. We confess to feelings of wonder and indignation when we see the biological investigator assailed with opprobrium while the sportsman is exonerated or applauded, and we regard such an attitude as worthy only of those days when it was a crime to examine a corpse, and when VESALIUS ran the gauntlet of sharp personal peril in laying the foundations of the science of anatomy. Our duty to the lower animals is too large a subject for us to consider here. We repeat that unnecessary cruelty is odious and loathsome, but life is difficult, disease and suffering are terrible realities, and we have no doubt in our own minds that the most enlightened humanity will continue to countenance as necessary and unavoidable the infliction of a measure of pain upon the lower animals for the benefit of mankind.

We cannot do better than conclude by quoting the opinion of that great man and true humanitarian to whom we have already alluded, CHARLES DARWIN. Asked his opinion of vivisection, he wrote in the year 1871: "I quite agree that it is justifiable for real investigations on physiology, but not for mere damnable and detestable curiosity." And on another occasion he gave his opinion that "to prohibit experiments on living animals would be to put a stop to the knowledge of, and remedies for, pain and disease." If our moralists insist upon continuing the war upon vivisection, let them at least preserve some slight shreds of consistency.

THE principle of Direct Representation in Medical Bodies is getting on. It has its ups and downs. And it does not seem to be accepted in its entirety by some of its supporters. One of the most curious instances of this was in the discussion of the principle at a meeting of the Fellows of the Royal College of Surgeons of England on the 2nd inst. As an amendment to the modest motion by Sir ROBERT CRAVEN, "that the number of the council be increased to thirty-two, and that eight of these, who may be Members, shall be elected by the Members only, provided always that no Member who has not been a Member for twenty years shall be eligible to a seat on the council," Mr. HERBERT W. PAGE proposed that it is desirable to give to the Members of the College direct representation on the council to the extent of four Members, who should themselves be Fellows, to be chosen only by the votes of Members, declaring candidly in his speech that he

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thought it was undesirable to put Members on the council. To do Mr. PAGE justice, he yielded quickly to the suggestion of Mr. TWEEDY to omit the less generous parts of his amendment, and to be content with the simple, and what will be the historical, averment, that it is desirable to give the Members of the College direct representation upon the council.

But the historical interest will centre not so much in the declaration of the Fellows in 1896, that the direct representation of the Members on the council is desirable, as in the fact that such an expression of opinion should have been deferred so long, and that when made it was so contrived as to take all directness out of the representation and to make it oblique or indirect. It will be the surprise of later generations that such a body as the College, which has ruled so largely in medical education and examination, boasts of a membership larger than that of any other examining body or of all other examining bodies put together, and the Members of which have for the most part conducted the general practice of England for generations, has yet thought so slightly of its Members as to have excluded them from all voice or share in the government and discipline of the College. The argument from history on which Mr. HENRY MORRIS mainly founded his opposition to direct representation of Members would tend to prevent all progress and all change in scientific bodies, and encourage the perpetuation of all the old abuses of which all are now ashamed. Mr. TWEEDY and Mr. GANT and others have done great service in inducing Mr. PAGE to withdraw the limiting words of his resolution, and to approve the principle of direct representation *simpliciter*. It is scarcely possible to believe, after this expression of opinion by a majority of Fellows, that there will be any further hitch on the part of the College in conceding direct representation of Members by either Members or Fellows as the Members may see fit. If ever there was a time when the executive of our medical corporations needed to be strong it is now. The numbers of the profession and the competition which is thereby involved make the maintenance of the discipline and traditions of the profession at once more difficult and more necessary than at any anterior period. But there can be no strength in the executive unless it represents the constituency and unless there is harmony between the various sections of which the constituency consists. The Royal College of Surgeons of England found that, when it went to the Home Secretary for his sanction to a new ethical clause, the opposition of the dissatisfied Members had some influence, and the council had at least to adopt a different form of expression to ensure the acceptance of the proposed new by-laws. In spite of the dogged opposition to direct representation there are many indications that it is giving way, and that the intellectual leaders of corporations are beginning to perceive that such a concession will bring to their councils an element of experience, and even of wisdom—and, above all, of sympathetic coöperation—which can only be to the general advantage.

We must not omit, however, to point out that the concession of direct representation of members of the profession or of any of its colleges makes it incumbent on them to use the greatest diligence and care in selecting such representatives as will sustain the reputation of the principle. The Members of the College seem to give guarantees beforehand that they will not elect rash or untried men. They have proposed that no Member shall be eligible for a seat on the council who is of less than twenty years' standing. They have everything to gain by electing men of the highest repute and standing in all departments of medical knowledge and practice who will represent the principle of direct representation with dignity. To require them to be content with a representation by *Fellows* is rather to mock them than to meet their wishes. This is, of course, not saying that they should be precluded from electing Fellows as their representatives. But it would be little creditable to the Members and to the principle of direct representation if they cannot find in their own order men to represent them. This principle applies to the General Medical Council as well as to single corporations. The representation of Fellows and of official men from schools and hospitals on the Council and in the Examining Bodies is ample enough already. It was not to increase this that the profession spent years in fighting for the principle. What is wanted to ensure the peace and prosperity of the profession and to bring its leading bodies into harmony with itself is a representation of the rank and file, who, we verily believe, will be as jealous for the education and the honour of the profession as those who are drawn from its teaching and consulting ranks.

Annotations.

"Ne quid nimis."

SOME ASPECTS OF THE RECENT MEETING OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE more carefully the proceedings at the half-yearly meeting of Fellows of the Royal College of Surgeons of England held on the 2nd inst. are studied, the greater reason have the advocates of the claims of the Members of the College to be satisfied with the acceptance of the principle of direct representation of Members of the College on the council by the assembled Fellows. The meeting was the largest, the most important, and the most representative meeting of the Fellows which has yet been held. Three members of the council of the College spoke in favour of the principle, and a fourth, who adopted a neutral attitude, was known to sympathise warmly with the movement, whilst the one member of the Council who spoke against the concession and was the sole speaker on the opposition side certainly made no converts, if he did not influence votes in the other direction. Out of eighty-one Fellows present only seven could be found to hold up their hands against the resolution "that it is desirable to give to the Members of the College direct representation on the Council," whilst at least sixty Fellows held up their hands in its favour. If a similar proportion should be maintained throughout the constituency it would result in showing more than 800 supporters and about 100 opponents of the principle. Be this as it may, the vote and the circumstances attending the vote constitute a very striking evidence of the growth of liberal opinion in the constituency of Fellows since the subject was first discussed at the College rather more than ten years ago. At that period the council sanctioned the issue of memoranda said to have been unanimously adopted by the members of the council against the Members' claims. The present position of the question—

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to a large extent the outcome of the policy of establishing separate meetings of the Fellows of the College, and thus affording opportunities for discussion and interchange of opinion—is especially gratifying to THE LANCET, inasmuch as we have never ceased, even in periods when the fortunes of the Members appeared to be at a low ebb, to advocate concessions and to urge upon the council and the Fellows the wisdom and expediency of giving to the Members of the College a share in the government, and thus uniting in harmonious relations all who belong to this great corporation. It will have been noted by our readers that the resolution affirming the desirability of direct representation of the Members of the College on the council has been referred by the council to the committee, which received deputations from the Association of Fellows and from the Society of Members and has not yet sent in a report to the council. What may be the recommendations of the committee we are not in a position to anticipate, but the significance of the vote in favour of the Members is such that it would seem advisable that the views of the entire constituency of Fellows should be ascertained without delay. If these views should prove confirmatory of the recent vote we do not see how the council can any longer hesitate to give effect to them. It is to be regretted that the great length of the proceedings at the meeting in reference to the questions of the representation of the Members of the College on the council and the admission of women to the examinations for the diplomas of the College prevented the full discussion of the case of Mr. R. B. Anderson, thus precluding the Fellows from evincing their warm sympathy with him on account of the grievous wrongs which have been inflicted upon him in the sacred name of justice. The endurance of the audience had been exhausted, and when Mr. Holmes rose to speak a rapid exodus was in progress, so that by the time he came to the end of his remarks the requisite quorum of thirty Fellows no longer existed. The President, therefore, was precluded from putting the resolution to the meeting, which thus came to an untimely end. It would have been a point gained if the support of the body of Fellows to which Mr. Anderson belongs could have been demonstrated at a large meeting, and we sincerely trust that the Fellows will take the earliest opportunity to lend at least their moral aid to Mr. Anderson in his courageous efforts to obtain redress, to vindicate the rights of medical practitioners, and, if necessary, to secure an amendment of the law. There was one other incident at the meeting to which we wish to allude. Before the commencement of the proceedings two reporters had been admitted and had taken their seats near the well. These "strangers" were soon discovered and were requested to withdraw; they were at once obedient to the injunction of the President. The exclusion of reporters is thought by the officials of the College to be necessary in order to emphasise the informal character of the meetings of Fellows; but would it not be for the advantage of the profession and the College, that the proceedings should be properly and completely reported in the medical press? This is a subject which we commend to the careful and favourable consideration of the council of the College.

THE TRANSVAAL AND DR. JAMESON.

THE political horizon has undergone a sensible change for the better, although it cannot yet be said to be free from disquieting clouds. Notwithstanding that we have ascertained many details regarding Dr. Jameson's raid, we are still very much in the dark as to the actual causes which led to its being undertaken and the exact motives that actuated its leaders. Who signed and sent the document and plan that are stated to have been found after the fight was over? Unless it had been represented to Dr. Jameson that the people of Johannesburg were in great straits and that a large force was ready and waiting to effect a junction with him on the appearance of his force, his expedition could only have been what it proved—a hopeless undertaking. As it was, the agitation in Johannesburg had no backbone; it seems to have had no organisation or plan of action, and the raid across the border of the South African Republic went as straight into a position from which there was no escape as a rat or a bird into a baited trap. The raid, whether successful or unsuccessful, was no doubt a most illegal and indefensible action; but, apart from its grave political aspect, it was bound to be unsuccessful. The position attacked was an impregnable one; the attacking force, instead of being a preponderating body, was ridiculously inadequate for the purpose, besides being insufficiently supplied with food, water, and ammunition, and neither the men nor their horses were equal to the strain to which they were subjected. Now, Dr. Jameson's previous career had proved that he was a man of ability and cool judgment as well as courage and daring, and he had for comrades in his desperate enterprise professional soldiers. It seems impossible, then, to suppose that they would have started on such a service unless they had been dominated by a conviction that it was absolutely necessary to undertake it, and at once. On the other hand, was it only the outcome of a badly designed plot formed long before? As far as we are at present in possession of the facts, it would certainly seem to have been a hopeless and unwarrantable expedition; but it is only fair to add that we are not yet in possession of all the facts. One side of the unfortunate story has been told, but it leaves us altogether in doubt as to the reasons and motives that actuated the leaders of the raid against the Boers. What were the antecedent and attendant circumstances? Who were the real movers and instigators of the plot—if plot it was? What part did Colonel Rhodes, who was present in Johannesburg, take in the business? Why did not President Krüger, if he was aware of any widespread plot, warn the High Commissioner and prevent its accomplishment? What the public like is, after all, a good advocate, one who strongly takes up one or other side of a question; but that is manifestly not the way to get at the truth. We must know a good deal more than we do at present before we can say how far Dr. Jameson was to blame and deserving of censure or not; and this we trust we shall learn later, when he and those acting with him have had an opportunity of speaking. The distress of the wounded from want of water must have been considerable. We are glad, however, to notice that all accounts agree in saying that they were well cared for as soon as they fell into the hands of the Boers, who seem to have behaved with a consideration and humanity that were most creditable to them under the circumstances.

IF THEATRES, WHY NOT CHURCHES?

A CORRESPONDENT of the *Times*, in a letter dated Jan. 7th, points out a custom existing in sundry churches, of the kind known as fashionable, which is a real danger to the community. He draws attention to the fact that at St. Margaret's, Westminster, the aisles and the nave are blocked up with chairs, and that, with regard to another fashionable church, St. James's, Marylebone, the Rev. H. R. Haweis writes: "I have more than doubled the legal number of free seats by means of chairs, camps (*sic*), and slabs." We regard this as a highly objectionable practice in two respects—firstly, on account of the danger of blocking the exits in case of panic; and, secondly, because of the injury to health caused by cramming a building to its utmost capacity. Churches are never too well ventilated, and there should be a definite limit imposed upon the numbers of the congregation. We

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may mention another church, which from its position should set an example to others, where overcrowding is prevalent. At Westminster Abbey, on a Sunday afternoon when a popular preacher is announced, the choir and transepts are packed, the congregation even sitting with their backs to the altar, on the altar steps. Now, Westminster Abbey has a nave, and the nave is the proper place for the congregation. If people would only get into their heads that a sermon is not worship, and if the sermon were preached by itself, as it is at the universities, crowding would be done away with, and worshippers would not be interfered with by well-dressed curiosity-seekers. The correspondent, upon whose letter we have been commenting, says: "If any manager were to persist in blocking up the gangways of a theatre or music-hall in the way the aisles of a large number of churches now are, he would run a very great risk of losing his licence." This is perfectly true; but if the guardians of churches persist in disregarding the ordinary laws of health and safety means will have to be taken to render them amenable to reason.

THE NEW PHOTOGRAPHIC DISCOVERY.

WE are in receipt of a communication from Mr. A. A. C. Swinton, who states that he has during the past week made some investigation with the view of confirming Professor Roentgen's discovery, to which we referred last week. He has obtained distinct proof that the radiations in question do pass easily through various substances that are quite opaque to ordinary light, and produce strong impressions upon ordinary photographic plates entirely encased in light-proof material. Indeed, all substances that he has so far experimented on in his laboratory appear to be transparent to these radiations, even sheets of ebonite, carbon, vulcanised fibre, copper, aluminium, and iron, though there is considerable variation in degree. He has also obtained a photograph of a human hand, which shows very distinctly the shape of the bones with their joints in several of the fingers. With confirmatory evidence like this before us from an independent investigator the possibility of the application of this discovery as an aid in medical and surgical practice is a shade nearer probability.

DEATH UNDER NITROUS OXIDE GAS AND ETHER.

A death under anæsthetics was briefly recorded in THE LANCET of Jan. 4th, the patient being a fairly well-nourished woman aged twenty-six, not markedly anæmic. She had been suffering from cystitis for six months previous to her admission to Guy's Hospital on Nov. 13th, 1895, and for some weeks had been unable to sleep for more than a few minutes at a time owing to frequency of micturition. There was some tenderness and pain in both renal regions, but no definite tumour could be made out owing to rigidity of the abdominal muscles. The temperature on three occasions reached 103° F. The heart and lungs (after repeated examinations) were considered to be free from disease. On Dec. 2nd nitrous oxide gas was administered and taken satisfactorily. Two full inspirations of air were then allowed, and an Ormsby's inhaler (charged with half an ounce of ether purissimus) was applied. The breath was held at first, but soon became regular. After the fifth regular respiration the pupils, which had been moderately contracted, became widely dilated, the temporal pulse could not be felt, and all respiratory efforts ceased. There was very little lividity, and no muscular movements were observed. The mask was removed, the end of the operation-table raised, and artificial respiration performed. Air passed freely in and out of the chest. Inhalation of amyl nitrite was then tried, and slight voluntary respiratory efforts were noticed, which, however, soon ceased. The pulse had entirely ceased to beat. Total inversion and galvanism were then tried, but with no effect. Post-mortem examination was not directed by the coroner. It is a most extraordinary thing that so important and mysterious a case should be left unexplained because a coroner does not authorise a necropsy. The usual verdict of a coroner's court is at best most unsatisfactory in cases of death under anæsthetics, and in this one particularly it is so because no possible evidence was produced to show why a fairly healthy woman should die in the manner she did. As far as the evidence goes, death appears to come under the heading of Caspar's neuro-paresis. We have recently published Dr. Lauder Brunton's exposition of such cases and have little doubt that this patient died through shock, and that the anæsthetic, although an adjuvant, was not a determining cause of death.

LEAD IN LEMONADE.

IT has been said that the public are not poisoned now, thanks to the provisions of the Food and Drugs Act, but only cheated. Milk, beer, and spirits are watered, coffee is mixed with chicory, butter with foreign fats, and so on, the adulterant in each case being comparatively harmless. We have not reached Utopia, however, in this matter, and we hope that the authorities who are supposed to keep a strict watch over our articles of food will not fail to notice a case in point which came before a bench of magistrates this week. A mineral water manufacturer was summoned for selling a syphon of lemonade which, on analysis, proved to contain 0·018 per cent. of lead, or about one-sixth of a grain to the pint. The defendant pleaded guilty, though the Bench did not think there was any intention to infringe the law. He was accordingly fined in a nominal penalty. Mineral water machinery is now so carefully and well made with a view to exclude metallic contamination that this conclusion was probably correct. The lead was doubtless introduced in the citric acid employed, and we hope the authorities will trace this ingredient to its source. True, the quantity of lead found was small, but then it is a cumulative poison, and the continued consumption of such a contaminated beverage could easily lead to serious results. The case only shows the importance of including all articles of consumption for submission to the public analyst from time to time, and the unwisdom of taking for granted that certain of them are sure to be free from suspicion because of the greater intelligence of the present day.

WHOLESALE MORTALITY AMONG NURSE-CHILDREN.

IT is, to say the least, somewhat discreditable to our system of social management that under it such abuses as those connected with the rearing of nurse-children continue to exist and here and there even to flourish. It cannot be questioned that they have been checked by recent legislation. Still they continue, and this under the very cloak of registration. Some days ago an inquest was held in Lower Edmonton respecting the death of an infant, the last of ten which had succumbed under the charge of one woman within fourteen months. She was registered to receive four children—a sufficient number, surely, for one person to feed and attend to—and her record of results could not have been much worse. The child had, of course, the usual history—illegitimacy, a period of healthy growth just after birth, a weakly, ailing after-stage, and in a few months death from mere waste of tissue. Constitutional delicacy may perhaps in part explain such a result, but it is idle to contend that it can, save in an altogether trivial degree, account for a retrospect so uniformly disastrous. The post-mortem evidence in almost all cases of this kind reveals

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no definite disease. All that is found is the proof of starvation in every tissue. To aid this reading of the facts we have commonly a history of insufficient or of wrong feeding, each in its own way mischievous, and ultimately fatal. Nature cannot under the circumstances be made a scapegoat for consequences the prevention of which is well within the control of her human instruments, and neglect, if it cannot be ascertained by hourly observation in these cases, is clearly exposed by such evidence as exists. Unfortunately, it is often sufficient merely to neglect an infant in order to assure its death. The treatment appropriate to this form of social evil has already in part been utilised. In registration, if properly employed, we have its most natural remedy, but this, to be effective, should go further than it now does. It should be applied with no less care than in the case of orphan children of a more advanced age who are boarded out, and, as we have always contended, it ought to be required in the case of persons entrusted with the care even of a single child. Inspection, careful and methodical, must likewise form an essential part of the arrangement, not only prior to the reception of children, but periodically afterwards during the period of nursing or adoption. About this there should be no great difficulty, and surely registration, if it is to be of any real value, must take account of the character, history, and competence of those who live and work under its guarantee. Such duties as these should impose no heavy burden on parochial authorities, to whom they might most naturally be entrusted.

BOOKS AS DISSEMINATORS OF DISEASE.

MR. R. H. SHERARD'S[1] notes in the *Author* are always interesting, but they do not often treat of matters that specially concern the medical profession. In the last issue of our contemporary, however, the Parisian correspondence contains the following allusion to the transmissibility of infection by means of books. "At a recent sitting of the Académie de Médecine two doctors, MM. Cazal and Catrin, declared very emphatically that the risk of contagion by the use of books which have been in the hands of persons suffering from infectious diseases is a very great one, and they described a number of experiments by which they had established the truth of this statement. One is glad to hear that the risk is greatly enhanced in the case of those objectionable persons who moisten their fingers in order to turn over the leaves." There can be no doubt that the contagion of certain disorders may be conveyed in the manner described, and that the transference of noxious germs is much facilitated when the pages of a volume are manipulated by the help of saliva-moistened digits. It is astonishing how widespread the latter practice is even among people who pride themselves on "culture." An observer has only to pay a visit to a public library if he wishes for ocular proof that fully 75 per cent. of the readers are addicted to the reprehensible habit. Among skilled artisans it is well-nigh universally prevalent, although the manual dexterity they are bound to have acquired might be supposed to render it unnecessary. Persons whose tactile sensibility is not very acute for lack of cultivation may be excused if they find it difficult to separate the leaves of a new book, especially when the paper is thin. With such a damp finger and thumb are almost a necessity, and if small sponges saturated with some harmless antiseptic fluid and fixed in suitable receptacles could be provided for them in reading-rooms they would, no doubt, be grateful. Mr. Sherard's advice to studious people is "never to borrow books, but for each man and woman to buy his or her own copy." Were this advice followed the risk of contagion *ex libris* would unquestionably be reduced to a minimum, but we fear that MM. Cazal and Catrin's *communiqué* will not cause enough panic to relax the purse-strings of the reading public to any appreciable extent. In this connexion we may draw attention to another unseemly, but extremely common, usage, which is likewise calculated to assist in the dissemination of disease. We allude to the application of lead-pencils to the lips before use. Doubtless the danger of conveying infection in this way is not very great, because pencils for the most part are the private and exclusive property of individuals; still there are cases in which these implements are provided *pro bono* (or *malo*) *publico*. As examples we may mention telegraph offices, attendance registers, visitors' books, &c.

[1] We must apologise if we have misspelled the author's surname. In the signature to his letter there is only one r, but in the table of contents there are two.

TAKING THE OATH IN COURTS OF LAW.

WE are glad to see that his Honour, Judge Emden of the Lambeth County Court, has had notices posted up calling attention to the fact that "the book" need not be kissed when taking an oath. The officers of the court are also instructed to tell witnesses when being sworn that they need not kiss the book unless they like. This is a most salutary and wholesome decision, and we hope Judge Emden's example will be followed by every court in the kingdom. We wonder whether the worthy people who are horrified at the kissing of the Gospels being left out have any idea of what kissing the book really means. They probably think that the Gospels are used as the printed word of God. But the origin of using them is not so. The use of the book was a form of calling upon the saints "to witness if I lie," and the old form of taking an oath was *to lay the hand upon the book*, saying, "So help me God and the Holy Gospels," meaning the writers thereof. The book was on rare occasions kissed as well, but the old form existed for a long time after the Reformation, and it was only Protestant scruples that brought in the alteration, omitted any verbal reference to the Gospels, and made the kissing obligatory. So, for once, sanitary common sense and Catholic antiquity go hand in hand.

TUMOUR OF THE CORPUS CALLOSUM.

IN the last number of *Brain* Dr. W. B. Ransome gives an account of an interesting and unusual case. A woman aged twenty-four, married for two and a half years, sought advice on account of general nervousness and fits. Her family history showed a neurotic strain, and since marriage she and her husband had led a restless, pleasure-seeking life, indulging freely in alcohol, although not in such quantities as to cause intoxication. The patient had never been pregnant, and there was no history of syphilis, either inherited or acquired. Her first fit occurred two years before she was seen, after a mental shock. They had subsequently occurred as often as every other day; latterly, however, only once a week. The fits were preceded by excitement and a peculiar sensation in the temples. Spasms then occurred in the left hand, consciousness was lost, and although the tongue was not bitten there was occasionally involuntary escape of urine. For six months there had been prominence of the eyes, palpitation and sweats, but no enlargement of the neck. When she was treated as an out-patient the fits ceased, but the excitement increased, so that six weeks after she was first seen she was admitted to hospital, being then in a semi-maniacal condition. There were slight general tremors, the knee-jerks were normal, and there was distinct commencing optic neuritis in each eye. She improved for a month. Then she had a rise of temperature and a fit in which the left side of the mouth was drawn up, the eyes were turned to the left, and the left hand was clenched, while the left leg and arm were rigidly extended, and the former twitched

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occasionally. Similar fits occurred for about a week, and the optic neuritis became more distinct; but improvement then began, she gained in weight, and the fits, and the headache and sickness which had usually succeeded the fits, also ceased. She was sent home and during the next two months her condition remained almost stationary. The optic neuritis persisted, however, and without the development of any fresh symptoms she suddenly died five months after she was first seen. On examination of the brain a tumour was found between the cerebral hemispheres, springing from the middle of the corpus callosum and bulging slightly into each lateral ventricle. It was about the size of a Tangerine orange, greyish in colour, and very soft. Its margins were well-defined, and its structure was found to be that of an oval-celled sarcoma. The rest of the brain was healthy. Dr. Ransome enters into an exhaustive discussion of the symptomatology of tumours of the corpus callosum, and, as a result of an examination of the various published cases, he gives the following indications for diagnosis of this condition: (1) gradual mental change; (2) moderate headache, vomiting, and optic neuritis; (3) hemiparesis with rigidity, with or without convulsions; (4) or convulsions without paresis; (5) integrity of cranial nerves; and (6) little or no change in the tendon reflexes. But even these, he says, are by no means certain diagnostic signs. The paper concludes with an interesting and instructive discussion of the functions and relations of the corpus callosum, and a list of published cases of tumour of that body, with the prominent symptoms in each. Mental change seems to be almost the only constant one, and the character of the change varies in the different cases.

THE VALUE TO THE COMMUNITY OF A PURE MILK-SUPPLY.

DR. NIVEN recently gave an address to the members of the Hulme Healthy Homes Society on Disease and Dirt. After speaking of defective drains and middens, and the soakage of the soil with filth, he went on to consider the milk-supply, saying that if we can plume ourselves on our good water we cannot on our good milk. Much that he said will apply to most of the towns in the country, for milk is treated in a rough and careless fashion. Samples obtained the previous day showed a thick layer of dirt, which was a mass of micro-organisms, "many of them probably capable of setting up disease." "Such stuff," he said, "should not be sold for human food"; and, talking of the various diseases that have been communicated by milk, he contrasted the care and cleanliness shown in Denmark with the uncleanliness often exhibited in our dealings with milk. "Here we are contented to drink stuff fouled at the farm, fouled in transit, often exposed to dust on the way, and again exposed to dirt in the shop." Of the 60,000 quarts or more used in Manchester every day, most of it, he thinks, is more or less dirty, and anyone who has been accustomed to notice the slovenly way in which milk is generally treated will quite agree with Dr. Niven. This is an age of feeding-bottles and artificial foods for infants, either from the physical incapacity of one class of mothers or from the social demands for which another class sacrifices the welfare of their offspring, and it would be well if the following remarks by Dr. Niven were taken to heart: "A recent investigation which I have made into this matter shows that, so far as my figures go, children fed by hand or bottle, either entirely or only in part, during the first three months of life are fifty times as likely to die of fatal diarrhœa as breast-fed children." In view of the condition of the milk-supply under our present arrangements, "all milk should be boiled on arrival, and no milk which has not been recently boiled should be given to an infant. Boiled milk is not the natural food of young infants, but if cow's milk must be used it is better so to use it than to run the risks involved in taking it unboiled." It would surely be worth while for the farmers of the district to do their part in supplying pure and clean milk.

A CASE OF TRANSPERITONEAL LIGATURE OF THE COMMON ILIAC ARTERY.

WE shall publish shortly an account of a successful case of transperitoneal ligature of the common iliac artery for diffuse traumatic aneurysm of the external iliac and common femoral arteries. The operation was performed by Brigade-Surgeon-Lieutenant-Colonel W. F. Stevenson, Professor of Military Surgery in the Army Medical School, Netley. It is, we believe, the first time that the transperitoneal ligature of this vessel has been performed.

M.D. U.S.A.

THE quack, Ferdinand, who was recently fined £20 and costs by Mr. Sheil at Westminster, had the impertinence to appeal against the decision. His counsel argued that he, Ferdinand, possessed a diploma from the University of Philadelphia. This contention was disallowed by the Court, and, in addition, Mr. A. G. Bateman, the secretary of the Medical Defence Union, writes to the *Times* of Jan. 14th, saying that, had it been necessary, the Union were prepared to show that the *soi-disant* University of Philadelphia had its charter revoked in 1879. The penalties for falsely assuming medical titles and for other forms of fraud connected with medicine are not nearly severe enough. Medical education is costly and lengthy, and it is but the duty of the Legislature to protect those who have spent time and money and undergone examinations against quacks of the Ferdinand type. With regard to quack medicines, which make their proprietors' fortunes, every one of them should be compelled to be patented, a heavy fee being charged, and a description of the materials of which they are composed printed on the package in which they are sold. It is hopeless to protect the average public against itself, nor, we take it, is it necessary; but some steps might be taken to manage to distribute among needy and struggling practitioners some of the thousands of pounds annually wasted upon decoction of aloes.

A SEQUEL TO SELF-TREATMENT.

A CASE of death which last week formed the subject of inquiry in the Brighton coroner's court is of interest as bearing upon the question of liability for the consequences of empirical treatment in disease. A servant girl aged twenty-four years died suddenly from apoplexy. She was said to have been suffering from anæmia, and she had recently undergone a course of drug-taking, which was dignified with the name of the "Viavi" treatment. To unravel with certainty the obscure pathology of such a case is not quite a simple matter. Hæmorrhages in anæmia are of course not infrequent, though we do not, save in aggravated cases, expect to find them occur thus early in life in the more deeply situated tissues. Similarly there are means of medicinal treatment which, if used by the reckless or the ignorant, are apt to induce this among other grave consequences. What may be the nature of the "Viavi" nostrum we are unable to say. The secret of its action is evidently too precious a thing to be submitted to the critical eye of the medical practitioner, for none of its promoters have been candid enough to enlighten us on this subject. It is to be regretted that an opportunity for analysing this mystical product was allowed by the coroner's jury at Brighton to pass unutilised, and we would express a hope that the local sanitary authorities will devote a share of their attention to its examination. If no result of importance

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be arrived at we shall at all events have learnt that there is nothing to reveal save the craft of charlatans and the folly of their dupes. If, as has been suggested, we have to do with a remedy capable of mischief, it is time that this fact were published. This incident is instructive in another way. It suggests very forcibly the question, Who was responsible for the mismanagement which allowed an inexperienced girl in weak health to drift through the hazards of chance diagnosis and treatment to a death which, for aught we can see, might have been prevented by the timely employment of rational methods? Neglect and the loss of time are in cases like hers almost, or even quite, as mischievous as the use of erroneous means of cure, and the blame for such neglect must rest not only on herself but on relatives and others with whom she was daily brought into contact.

DANGEROUS TRADES.

THE secretary of the Dangerous Trades Committee, Commander Smith, R.N., Heatherley, Sheffield, will be glad to have witnesses tendered for the purpose of giving evidence in the following trades:—India-rubber works; paper staining, colouring, and enamelling; dry cleaning; basic slag works and manufacture of silicate cotton; electric generating works; sole-stitching by American machinery; glass-polishing; file-cutting; bronzing and metalachrome powder in lithographic works; flour mills; use of converters in metal works; use of steam locomotives in factories; licking of labels for reels in thread mills; use of inflammable paints in shipbuilding yards; galvanised iron works; the process of dyeing with arseniate of soda; the manufacture of grindstones and emery wheels; the use of lead in various forms in print and dye works; the testing of bottles by compressed air; and the bottling of aerated waters. We doubt not that this invitation will meet with a hearty response, seeing the very wide range of industries which are involved. With such a number of witnesses the labours of the committee will be protracted, but the grave importance of the subject demands a careful hearing, if legislation is to be brought to bear, as we hope it will be, to alleviate as far as is possible the prejudicial effects upon the health of the operatives concerned, and the risks of accidents to which those engaged in these peculiar trades are liable.

"INTRA-UTERINE VENTROFIXATION."

THE December number of the *American Journal of Obstetrics* contains a paper by Dr. Shober on Operations for Retro-displacement of the Uterus. He briefly reviews the various operations that have been designed for correcting this displacement and then goes on to describe one which he himself recommends for cases where there are no adhesions, and for which he proposes the name "intra-uterine ventrofixation." An incision about an inch long is made in the middle line of the abdomen, about an inch and a half above the symphysis pubis. This is only carried through the skin and fat. The incision is covered with gauze while the next step of the operation is proceeded with, which consists in the full dilatation of the cervix, followed by a thorough curetting of the fundus. The patient is then placed in the Trendelenberg position. A long cannula is passed into the uterus up to the fundus, and with this the fundus is pressed against the anterior abdominal wall, opposite the incision already made there. A long needle eyed at the point is then passed through the cannula and made to perforate the fundus and abdominal wall at the place of the incision. The needle is thereupon threaded with strong catgut or kangaroo tendon and withdrawn; it is now passed up again and made to perforate the same structures as before, but at a short distance from its previous path. The needle is unthreaded and removed, leaving the two ends in the abdominal incision. These are now tied after a small nick has been made in the deep fascia to receive the knot. The incision in the abdomen is then closed. One of the chief advantages claimed for this operation is that it does not require the opening of the abdomen, and that it produces much the same result as ventrofixation by the modified Leopold operation. By this method a ribbon-shaped adhesion some two inches long is produced between the fundus and the abdominal wall. The sutures were found encysted in the middle of the adhesion in two cases here referred to. When abdominal section has to be performed Dr. Shober prefers the modified Leopold method. In this one or two sutures are passed near the lower angle of the abdominal wound, through the rectus and parietal peritoneum of one side, then through the posterior surface of the fundus and through the parietal peritoneum and rectus on the other side, and then tied. The deep fascia is not included in the stitches. The fundus uteri is not scarified in the modified operation. We confess to having doubts of the safety of intra-uterine ventrofixation by Dr. Shober's method without opening the abdomen. It appears to involve a considerable risk of wounding intestine or omentum, or even of including a part of one or the other in the stitch. If operative treatment has been decided on, the modified Leopold operation seems to us to deserve the preference.

THE HYGIENE OF WAR.

IN these days of disquieting rumours and armament to the teeth it is well to consider what war means and to refresh our minds regarding the expenditure of human life when international disagreements culminate in an appeal to arms. A work recently undertaken by Dr. Paul Myrdacz, Staff-Surgeon-Major in the Austrian Army, and one of the most active members of the Austrian Sanitary Commission, bids fair to supply reliable data to all persons interested in military vital statistics with reference to active service. At present only two fasciculi have been issued, the first entitled "Das französische Militär-Sanitätswesen: Geschichte und gegenwärtige Gestaltung" (the French Sanitary Service: its History and Present State), and the second "Sanitäts-Geschichte des Krimkrieges, 1854–56" (Medical History of the Crimean War), but the writer intends to prolong his labours with a view to the production of a veritable encyclopædia of everything appertaining to medico-military subjects. Among the more important subdivisions of this gigantic work are the following:—Organisation of the health departments in the principal armies of Europe; a medico-chirurgical history of recent wars; the effects produced by modern projectiles; a general review of improvised hospitalisation and transport. That so vast a programme demands collaboration will be readily conceded, but, although Dr. Myrdacz has been fortunate enough to secure the aid of Drs. Kirchenberger, Habart, and Gchirhakl, he nevertheless retains the lion's share for himself. A French writer (R. Longuet), criticising the first fasciculus, says: "The existing organisation is very accurately described in accordance with the regulations of 1889 and 1892. The little volume is very compact; its seventy-five pages allow nothing of importance to escape and will do more to inform foreigners regarding the French sanitary service than any other similar work heretofore published." In compiling his history of the Crimean war Dr. Myrdacz not only utilises the classical works of Chenu, Longmore, and Pirogoff, he has also been able to consult many other medical historians of lesser fame, besides having had access to unpublished documents. Amongst the writers here alluded to are Horsetzky, Anitschkoff, Gähde, von Hüblenet, and von Hasenkampf. Medical officers of the Austrian army are obliged to satisfy examiners regarding their knowledge of the Crimean campaign, with

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especial reference to sanitary matters, before they can be promoted, and it was in order to act as a text-book for this ordeal that the present fasciculus was originally written. It contains a complete *résumé* of the chief events during the memorable siege of Sebastopol. Details concerning the military operations are given side by side with a full account of medical and sanitary procedure, the whole forming an animated recital of a most important campaign.

THE BRITISH GYNÆCOLOGICAL SOCIETY AND HOMŒOPATHS.

THE resolution passed with but four dissentients at the general meeting of the British Gynæcological Society to the effect that it is inadvisable to admit homœopathic practitioners to the society is one which will meet with the approval of all who correctly appreciate the scope and work of such bodies. So long as the homœopath claims to deal with diseases on a fixed principle which is inferentially capable of being applied to every branch of medicine, it is manifestly absurd to invite his coöperation in discussion of practical and scientific subjects. Gynæcology, it might be thought, had little in common with homœopathy; but where would be the gain either to knowledge or to art by permitting the introduction into the arena of a body of practitioners who are bound by their dogmas to view all subjects in one light? The society has acted wisely in declining to encourage the membership of so discordant an element, the presence of which cannot possibly be held to be an advantage to the cause of truth.

THE RELIGIOUS NEWSPAPER AND IMMORAL ADVERTISEMENTS.

MOST persons must have noticed how advertisements of proprietary medicines are generally accompanied by appreciative testimonials from some "minister," and how also the quack advertisement flourishes mostly in the columns of the religious paper. To advertise frauds is bad enough, but nothing to the sin of advertising abortefacients and so-called remedies for nervous exhaustion. We have received a copy of a paper called *The Church of To-day*. Its theology seems somewhat uncertain, but that is not our concern. Suffice it to say that the word "church" presumably connotes "morality and religion," as the School Board used to say, therefore it is somewhat startling to find in its columns advertisements of the most infamous description. On page 3 are two—the first addressed "to the married and those intending to marry," recommending "my new book, which treats ..... of large families with a check." The other is: "The Private Medical Adviser, with Diagrams and Instructions for the Self-cure of Nervous Debility ..... the results of youthful indiscretion, &c., &c." In close juxtaposition is an advertisement to "Religious Enquirers" recommending works about a certain sect. On page 4 are two advertisements recommending in the most bare-faced way preparations which are certainly calculated to produce abortion. We happen to have a bottle before us of the preparation named in the latter of the two advertisements; the price is 11*s.*, and it is labelled "Must not be taken by those expecting to become mothers." The next advertisement to this is headed "Liberal Christianity." On page 9 is an article or advertisement, we are not sure which, setting forth the virtues of a sure remedy for nervous exhaustion and loss of sexual power. Now we contend that advertisements of this class would be infamous anywhere, but they are infinitely more so in the columns of a paper ostensibly devoted to religion. Other religious papers we have examined—the *Guardian*, the *Church Review*, the *English Churchman*, the *Tablet*, the *Christian*, and the *Christian Herald*—are, we are glad to say, free from blemishes of this kind. True, they all insert advertisements of quack remedies, but there is nothing about "obstructions" or sexual weakness. The *Tablet* has two advertisements which were better away concerning pills for females, but it is possible to put an innocent construction on them. Advertisement is a necessary part of modern commercial enterprise, but it is not too much to ask that it should be conducted with some regard for decency, and that means for committing a crime which is banned by both civil and canon law in every civilised country should not be offered at either 4*s.* 6*d.* or 11*s.* in the columns of the public press, more especially in the "Church" section of it.

THE UNIVERSITY OF LONDON.

THE meeting of Convocation on Tuesday next, the 21st inst., will be a most important one, and is sure to be largely attended. Dr. Silvanus Thompson will move: "That this House desires the early introduction into Parliament of a Bill for the reconstitution of the University similar to that introduced last year by Lord Playfair, but with an inserted clause securing to the Senate, to Convocation, and to other bodies affected the right of appeal to the Privy Council on any of the provisions which may hereafter be settled by the Statutory Commission." This motion will be met by Dr. Napier with the following amendment: "That, in view of the fact that Convocation numbers about 4000 members, most of whom are precluded, by their avocations and distance from town, from attending a meeting in London, and of the desire recently expressed by the Lord President of the Council to ascertain the opinion of country graduates, it is inexpedient for this House to express any opinion as to the desirability of legislation for the reconstitution of the University of London until, in compliance with the desire of the Lord President of the Council, the views of all members of Convocation have been ascertained." The debate is certain to be a very animated one, and the division list will be eagerly awaited, as the relative numbers on the two sides must exercise a great influence on the ultimate decision of the Lord President and the future of Lord Cowper's scheme of reconstitution. Urgent whips are being circulated by both parties.

DIPHTHERIA AND PSEUDO-DIPHTHERIA.

IN another column a correspondent, "M.D.," records an experience which is far from being unique and is, we imagine, becoming increasingly gained. It concerns the difficulty incurred in attempting to correctly designate forms of infective and membranous sore throat in which bacteriological examination fails to detect the Löffler-Klebs bacillus. The whole tendency of modern investigation is to limit the specific disease—diphtheria—to those cases in which this microbe is present in the exudation. This position is supported by the experimental proofs of the specific action of the toxines produced by this bacillus. But side by side with this specific disorder is a series of throat affections in which streptococcal and other organisms are alone present, and the clinical aspects of which have led to many a diagnosis of diphtheria. There can be no doubt that these pseudo-diphtherial cases, arising, as they often do, in association with the true disease, and favoured in their development, it may be, by similar conditions of environment, should rather be put in a category apart and provisionally classed as "septic." Nor does the coexistence of a scarlet rash in such cases necessarily mean that the scarlatinal virus has anything to do with their occurrence, for an exanthem closely resembling that of scarlet fever is a recognised attribute of septic infection. It is safer perhaps,

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with our present diagnostic powers, to continue to notify such cases as "diphtheria" or "scarlet fever," according to their predominant characteristics; but it may reasonably be expected that the progress of bacteriology will one day afford the basis for the differentiation of the members of a somewhat heterogeneous group of affections.

THE REGISTRATION OF NURSES.

A CONFERENCE on the legal registration of nurses was held in the council-room of the British Medical Association on Tuesday last. The discussion was based on the resolution of the British Medical Association at its annual meeting in favour of legislation providing for the registration and education of medical, surgical, and obstetric nurses, and on the view that the first thing to be done was to ascertain the wishes of the nursing institutions on the subject. No doubt this is a thing to be done, but we should have been disposed to regard it as the last rather than the first. The first question is, What is the public want to be supplied? This question must be answered mainly by the medical profession, who know where and what kind of nursing is wanted, and what kind is not wanted. We are threatened with an army of nurses for which there is no corresponding demand. We have lately sounded a note of warning on this subject, and a similar note appears in the January number of our contemporary, the *Practitioner*. We observe that the very nursing associations themselves seem somewhat staggered at the grand schemes for raising them into a second edition of the medical profession. They have accepted by a majority of *one* a resolution to the effect "that a legal system for the registration of nurses was inexpedient in principle, injurious to the best interests of nurses, and of doubtful public benefit." Only the representatives of nursing institutions voted—6 for the resolution and 5 against. State registration accordingly was negatived. What is wanted is a class of women of helpful qualities, good temper, and moderate training to serve under medical men; and their cost must not be a bar to their services. There are indications abroad that we are returning to a common-sense view of the nursing question.

"A SAGITTA VOLANTE IN DIE."

DR. FLETCHER LITTLE, medical officer of health for Harrow, writes to the *Times* of Jan. 13th, and raises an important point. At the recently held conference of headmasters the report of the Royal Commission on Secondary Education was discussed, and Mr. Welldon, though welcoming the report, took exception to certain portions of it, notably that which provided for sanitary inspection of (presumably) boarding-houses by the local sanitary authorities. "Why," he said, "it would be in the power of the central office, upon a representation of the local authority, to close all boarding-houses—as undoubtedly it would close any school buildings—which did not satisfy the sanitary conditions prescribed by the central authority." Dr. Little points out—and we should have thought the fact would have been sufficiently obvious, even to Mr. Welldon—that there is a danger of intercommunication of disease between the boys and the townspeople and *vice versâ*, and that, the school being an integral part of the town, the residents in the town are interested in seeing that the sanitary inspection should be efficient. The simple fact is that houses and school buildings, if insanitary, should be not necessarily closed, but put in order, and this law holds good whether it is Mr. Welldon's house or any other person's. What the conditions existing at Harrow may be we know not, but we do know that at Eton in Mr. Welldon's time—whatever be the case now—the sanitary condition of some of the houses, to say nothing of the school buildings, was far from perfect. Certain of the class-rooms would have caused a School Board officer to faint. There were no means of ventilation, except draughts—no thermometers to mark the temperature, no proper seats, no hat-pegs, no means for disinfecting books, or any of the thousand and one luxuries to be found in a Board school. But then, of course, the parents of the boys paid for their education, or it was paid for by the beneficence of the pious founder and not taken out of the rates. We dare say the same thing exists at Harrow, and nowadays the Goths—if the sanitary authorities will pardon the expression—are at the gate. Scarlet fever is scarlet fever, whether in a duke or a dustman, and has to be fought in the same way. Mr. Welldon is a clever man; is a good scholar; is, we believe, a successful headmaster; and is—or was, at any rate—a most brilliant football player. But he had better hold his tongue than talk as he has been doing about sanitation.

THE annual general meeting of the Neurological Society of London was held on Thursday, Jan. 16th, at 8.30 P.M., at 20, Hanover-square. Dr. Hill, the President, delivered the inaugural address, entitled "Is there a Nerve Plexus?—a Criticism of the Results obtained by the Chrome-Silver Method of Staining Grey Matter," which was illustrated by photo-micrographs.

A PAPER will be read on Hospital Finance at the Victoria Hotel, at 4 P.M. on Monday next, Jan. 20th, by Colonel Montefiore, with special reference to the question of a central hospital board. Mr. Bryant will preside. Mr. T. Holmes, Dr. Acland, Dr. Glover, and others are expected to take part in the discussion.

MR. REGINALD HARRISON, senior Vice-President of the Royal College of Surgeons of England, has been elected a member of the council of the Royal Medical Benevolent College.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—The fourth meeting of the session was held on Jan. 8th in the medical wing of University College, Bristol, Mr. A. W. Prichard in the chair. Mr. John Dacre opened a discussion on the Uses of Alcohol from a Medical Standpoint; in a most interesting discourse he advocated the moderate use of alcohol both in health and disease. He was followed by Dr. E. L. Fox, Dr. Harrison, Mr. Munro Smith, Dr. Shingleton Smith, Dr. Skerritt, Mr. Cross, Dr. Prowse, Dr. Harvey, Mr. Greig Smith, Dr. Ewens, and Dr. Aust Lawrence; at a late hour Mr. Dacre reviewed the various points mentioned during the debate.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—A meeting of this society was held on Jan. 1st, Dr. F. R. Mutch, President, in the chair. Dr. Bell Taylor read a paper on "Squint up to Date." He described the various methods of operating and thought that advancement without tenotomy was not usually successful; he advised operation in all degrees of strabismus. Dr. Mutch and Dr. Kingdon also spoke on the subject. Dr. Coulby moved, and Mr. Stephens seconded, the following resolution:—"That in the opinion of the society it is unprofessional and undignified for any medical man to accept the post of medical officer to so-called medical aid societies promoted by, and for the benefit of, men outside the medical profession." It was further moved by Mr. Lander, and seconded by Dr. Bolton, "That a committee of this society be elected to consider the best means of dealing with the subject of medical aid societies." Mr. Wood, Dr. Hunter, Mr. MacMillan, Dr. Tresidder, Mr. Pryce, Mr. Cox, Mr. Belcher, Mr. Anderson, Mr. Milner, Dr. Mutch, and Dr. Heelis spoke on the subject, and Dr. Coulby replied. Both resolutions were carried. It was then decided that the President, Mr. MacMillan, Dr. Blurton, Mr. Cox, Dr. Hunter, Mr. Pryce, Mr. Lander, Dr. Coulby, Mr. Anderson, Dr. W. B. Ransom, and Dr. Tresidder should form the committee.

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THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER III.

Life as a Student.—The Curriculum of the Royal College of Surgeons in 1817.—Fondness for Dissecting.—Great Dearth of Subjects.—Body-snatching and the Profession.

THOMAS WAKLEY was placed by Mr. Phelps in lodgings in a small street running off Tooley-street in the Borough. In this district it was the almost invariable custom for the students of the United Hospitals to lodge, because in those days there were not the facilities that now exist of getting from one metropolitan area to another, so that it was necessary for a man to live near his work. (We hardly realise how modern a thing the suburban resident is.). The exact street is not known by name to his surviving relatives, and is not traceable in any documents, but this much is certain, that it is pulled down, and that, like the ancient buildings of St. Thomas's Hospital, it stood upon ground now covered by the London Bridge Railway Station. There were some twelve small streets demolished in 1862 to make way for the necessary buildings of the railway company, and among them the street in which Thomas Wakley and a friend lodged. His fellow lodger's name was Thomas Wiltshire, and at that time there was no relationship between the two lads, but Wiltshire (who subsequently discontinued the pursuit of medicine) afterwards married the sister of Wakley's wife.

The young student worked hard. He had sufficient self-restraint to live a laborious life at a time when it was not only unusual for a "medico," as the comic press delighted to term him, to work very hard, but unnecessary, having regard to the perfunctory nature of the tests by examination. It is easy to understand that for the country-bred lad, with home influence strong upon him, the licentious Bohemianism to which we have alluded as being rife among the medical students of the metropolis would have no attraction. To him the coarse riots of the dissecting-room were only revolting; the orgy of porter, the Fleet-street amour, and the cutty of black tobacco, which played so large a part in the lighter side of student life, were not able to seduce him from his studies, for he cordially disliked each form of indulgence. He was abstemious by nature and cleanly by temperament, and to the end of his days cherished an unaffected and hearty dislike for the habit of smoking. His descriptions of his student days, as well as the testimony of one or two of his contemporaries, all go to show that he lived as a lad the life that he lived as a man—a life of self-respecting, sturdily independent, labour. The affectionate husband of five years later was no transmuted rake; and the man who, for thirty-five years of his life, regularly worked fifteen hours a day did not learn the self-denial and strength under perpetual strain necessary for such a career in the vagaries of a mis-spent youth. It was his affectionate habit to attribute to the influence of his favourite sister, Mrs. Newbury, the fact that the gins into which so many of his fellow-students blundered had no teeth wherein to catch him, but, in truth, all his after-life showed such an unequivocal contempt for sensual allurements that it must be believed that he was something of the innate Puritan. It must not be supposed, however, that he was in any sort of way a milksop or a prig. He was, on the contrary, a very muscular, energetic, and hearty young man, popular with his fellow-students and renowned among them for his physical strength and powers of endurance. He was a good and enthusiastic cricketer, a far better billiard-player than most lads of his age, and an adept at the old-fashioned game of quoits. Above all he was a brilliant boxer, and in those days the science of the gloves was more widely diffused than it is now, and it was possible for a man to get as much fighting as he desired—it was colloquially termed a "bellyful of fighting"—without going to the expense of subscribing to an elaborate gymnasium or taking out a course of instruction with a courteous *maître d'armes*. Many a public-house had attached to it in a half-loafing, half-business capacity a pugilist who, when not occupied in keeping order for his employer, the landlord, would oblige that employer's customers by putting on the gloves with them. The Game Chicken, the public character who was "to be heerd on at the bar of the Little Helephant," was a very real person at the date of Thomas Wakley's student life—more so, in fact, than forty years later, when Dickens drew him—and it was with such men that the young countryman would measure his strength, and from the instructions of such men that he derived his exceptional skill. His devotion to athletic exercise sufficiently redeems him from any charge of priggishness. He had to go for his fun where his fellow-students went for theirs—to public-houses and similar resorts, for not only did boxing and billiards take him into these places, but cricket and quoits necessitated sojourns at the same social centres; but his ideas of amusement, wherever he might find himself and in whatever company, were always hardy and innocent. In particular he loved the fierce give-and-take of fighting, and rejoiced—as any natural young man will always rejoice—in his prowess; and, if for no other reason than that he might always be in training for his chosen sport, he strictly abjured drink and tobacco.

In 1815 young Wakley was receiving an allowance of £80 a year from home, and the buying powers of £80 were considerably larger at that time than they are now. This was due to wants being fewer and simpler rather than to any item in the daily expenditure being cheaper. The cost of living—i.e., the bare cost of food—in London was not appreciably different then to what it is now, and the difference that existed compensated itself, one item being dearer while another was cheaper. Tea, sugar, and bread were, for instance, all considerably more costly, while beer and beef and butter were proportionately moderate. It was in the simplicity of their wants that the poor men at the beginning of this century found salvation. The medical student did not expect to have more than rough, scanty fare. He moved in a stratum of society where to be exceedingly poor was to be like everybody else, and where to be eccentrically shabby and unconventional in dress was to emulate the manners of the choicer spirits. Consequently no money had to be spent on keeping up appearances—a roof was wanted to sleep under, but there existed no necessity for the student to have more than one room; and a public cult of the beautiful was then a thing so far unknown that people vastly more rich and fastidious than medical students took no heed of the way in which their dwelling-places were furnished. Also, it must be remembered that much of the student's work of those days was done in the hospitals and the lecture-rooms of the private medical schools, for the curriculum of the College of Surgeons and that of the Apothecaries' Hall were such that much evening study could not be necessary. To share one room with a friend at a weekly rental of 8*s*. was the usual proceeding with the student of the United Hospitals, and the domestic arrangements of Thomas Wakley and Thomas Wiltshire, who had a bedroom each and a sitting-room to boot, must have savoured of lavishness in the Borough. Their meals they obtained out of doors at ordinaries, taverns, and cook-shops, and in this

[1] Chapters I. and II. were published in THE LANCET of Jan. 4th and 11th respectively.

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respect there was not much difference between what they paid and what the clerk in London upon 30*s.* a week now pays. They would have found it difficult to spend less than 2*s.* a day; and, as a matter of fact, that sum exactly accounts for the expenditure of the whole of young Wakley's income, although we have it from himself that when he was a student he never knew what it was to want a sovereign. And he never once asked a penny from his father above his allowance, either to satisfy a creditor or gratify a taste, and if he had done so he would have taken nothing by the move, for Mr. Henry Wakley, being the arbitrary man that he was, in allowing his son £80 a year expected him to live upon it, and said so. Fees would not have been less than £20 per annum; his clothes would have cost him £10, for he was never unconventional in his attire, and even as a boy showed germs of the dandyism that later distinguished him; and the cost of his board and lodging swallowed the rest. Travelling was not a cause of expenditure at the beginning of the century upon which any watchful eye had to be kept, for the facilities for rapid locomotion were so small that all temptation to run backwards and forwards from town to country and from work to play was absent. There was also but one holiday in the medical year, and Thomas Wakley showed his sturdy muscularity, and perhaps the fact that he found the quietest living in the metropolis a strain on his exiguous resources, by walking all the way from London to Membury on each occasion. He was once accompanied on his walk by an elder brother, Michael, who was an accomplished pedestrian, but on another occasion he covered the whole distance in solitude.

The curriculum which was required of the student by the Royal College of Surgeons of England at that day and previously to 1823 looked vastly well on paper. The student was required to do five years' medical study, a fact that may come as a surprise to many who have been in the habit of regarding the extension of the curriculum in 1892 as a remarkably revolutionary and progressive step. During those five years the student was required to attend two courses of lectures and demonstrations upon anatomy at London, Dublin, Edinburgh, or Glasgow, and to take out two courses of practical dissection at a recognised anatomical school. To this was added a year's practice to be seen in the wards of a general hospital in one of the four cities. The candidate's lowest age was fixed at twenty-two. Thomas Wakley counted his five years dating from 1812, when he went as apprentice to his brother-in-law. He remained there nearly two years, going thence to Mr. Coulson, whom he assisted for more than one year. He qualified in 1817. From this distribution of his time will be seen the great importance that was placed at that day upon apprenticeship to a general practitioner. Out of a compulsory curriculum of five years it was open to the student to spend as much time as he liked as an apprentice, working under a qualified master. True, he was compelled to see one year's practice at a hospital, to attend certain lectures, and do a certain amount of dissecting, but inasmuch as he could attend the lectures and the practical courses of anatomy at the same time, while he was also seeing the practice of his hospital, his curriculum really meant one year's academic work to be added to four years' experience as assistant in a general practice. Thomas Wakley, coming to London in 1815, and attending at the United Hospitals and Grainger's School until 1817, gave a year's more time to the scientific side of his profession than could have been exacted from him and than was usual among those students, who, having no possible chance of hospital appointment, were looking to the public only for future advancement. But he spent over three years as an apprentice in the country. This is interesting to record because it shows that the man, the key-note of whose medical policy was the maintenance of the rights of the general practitioner, had obtained a practical insight into their wrongs by considerable experience of their lives and work.

He was exceedingly fond of dissecting, and is reported to have been a sound anatomist. We say "reported to have been," for his years in practice were few, and no actual cases have been handed down in whose treatment or diagnosis he betrayed any very special knowledge of the science, while the fact that he belonged to the rank and file of the profession and was not a fee-in-hand apprentice of a hospital surgeon precluded him from all opportunity, either in ward or lecture-room, of proving that he possessed exceptional knowledge. That he considered an intimate acquaintance with the machinery of the human body an absolute essential to all medical study is revealed over and over again in his writings in THE LANCET, in his words from the coroner's bench, and in his Parliamentary speeches; and this much is certain, that he spent an amount of time in the pursuit of anatomy which was not required of him by the schedule of the College of Surgeons. As we have seen, the minimum amount of dissecting required by the curriculum of the College was two courses. Wakley did three courses at St. Thomas's Hospital, and also a course at Grainger's private school, though he could but ill have spared the money necessary to buy "the parts," the expense of which was no slight consideration, as will be seen below.

To say that a knowledge of anatomy is the basis of all sound medicine and surgery is such a truism that to claim for Thomas Wakley that it was his idea must seem a little unnecessary, for if he had not possessed the idea he would stand convicted of shortsightedness. But it should be remembered that the science of anatomy was in those days not so easy of acquisition as it is now, that its professors were under considerable and unsavoury suspicion among the public, and that there was every temptation to belittle the study of the actual body. The dearth of bodies was at this time one of the most serious drawbacks to a medical education. Subjects for dissection could only be obtained from two sources. The first, the legitimate source, was the gallows, the corpses of murderers being handed over to the dissecting-rooms after the criminals had suffered capital punishment; the second, the illegitimate source, was the resurrection man. The inefficiency of the first source is shown by some figures which are given in an early number of THE LANCET.[2] From these it appears that the number of persons executed in England and Wales from 1805 to 1820, inclusive, amounted to 1150. It is known that not all these bodies were used for dissecting purposes, while the average number of students yearly entering upon their studies at the different London schools was estimated at nearly a thousand. And other legitimate sources—purchase, for instance—were not available. The law, only allowing the bodies of the worst malefactors known to it to be used for anatomical purposes, stamped an obloquy upon the dissector and also upon the dissected, so that it became an awkward task to attempt to acquire a corpse from its nearest surviving relatives, while it betokened a certain absence of delicacy in the relatives to allow themselves to be tempted by money to hand over the body. As a consequence the second, or illegitimate, mode of obtaining bodies was resorted to by the professors of anatomy at the different hospitals and the proprietors of the different private schools.

Body-snatching was practised largely and regarded by the medical profession not so much as an infringement of the law, and an outrage upon all decency, as a necessity, painful perhaps, but with its humorous side. It is narrated

[2] THE LANCET, vol. i., 1823, p. 66, third edition.

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of a distinguished surgeon, the hero of many body-snatching stories, that on one occasion he went some way out of London to bring back a body that had been procured for him from a country churchyard where the watch against this form of desecration was not so alert as it was in London, and that on his return journey he propped up the body alongside of him in his gig, having clothed it in decent out-door garb, as the readiest method of getting it into his house without attracting any attention. Having stopped outside a suburban public-house for refreshment, the potman who brought out the liquor naturally inquired if the other gentleman wouldn't have anything. "Damn him, no," said the great surgeon coolly, recognising that he must account at once for the silence and immobility of his companion, "damn him, he's sulky." This is only one out of hundreds of stories for which very general credence is asked in proof of the fact that before the notorious murders by Burke and Hare and Bishop and Williams body-snatching was winked at in the medical profession. And it is not to be denied that this was the case. Can it be wondered at? A knowledge of anatomy was a necessity; this knowledge could only be properly obtained by dissecting, and, previously to the passing of the Anatomy Act, there were no bodies to dissect. The public at large looked upon body-snatching as contrary to all the established prejudices of humanity and did not care whether anatomy was studied or not, overlooking its paramount importance to the medical man. The profession, on the other hand, had a conscientious desire to know all about the body they were going to treat, which desire could easily be strained into an intention to obtain the knowledge in spite of the public. These two attitudes were utterly irreconcilable, and, as is the case when people see things from different standpoints, a good deal of bitter feeling was occasioned. The students were compelled to depend for their acquisition of essential knowledge, in the dearth of proper subjects for dissection, upon expensive illustrated text-books and *papier-maché* models made for the most part in France. Sir Charles Bell's celebrated plates were published in 1798, and were the students' main support in Thomas Wakley's time, as Lizars's plates, probably the best thing of the sort ever published, were a decade later. The *papier-maché* models of the human figure were made in Paris and, to some extent, in Vienna, and were something like a child's picture puzzles in the use to which they were put. The student learned his topographical anatomy by their aid by fitting the parts in among each other in accordance with coloured diagrams and wax models. All this was felt to be, by those who knew, a very poor substitute for actual dissection of the body, and the profession were sorely troubled by the inability to obtain due facilities for learning. The apathy of the authorities did not allow of the utilising of the bodies of the unclaimed dead, and few persons were sufficiently free from prejudice to leave their bodies of their own free will to the anatomy schools. So that nothing was open to the anatomists save to get the bodies *aut vi aut fraude*.

In the end this lamentable state of affairs led to crime, but for years before the notorious Burke and Hare trial the pilfering of bodies from the churchyards was known to be undertaken at the instance of members of the profession, and for the offence many persons were convicted and heavily punished. Upon this it followed that the fees to be paid to the resurrection men grew heavier in proportion as the risk grew greater and the trade developed into skilled labour. A body was worth £10 to a professor of anatomy at a hospital, and even more to the owner of a private school, inasmuch as the hospital schools obtained such bodies as were at the disposal of the Government. A student had to pay in ready money as much as £2 or £2 10*s*. for "a part." So that it was only natural that the lucrative trade of body-snatching became almost a fine art, so necessary was it that the perpetrators of the sacrilege should avoid detection. Special tools were wanted: sharp curved spades on long handles, scoops on jointed shafts, grappling forceps, files, and light crowbars. The impression that nothing could be easier than to go to a churchyard and dig out a newly filled grave, break open the coffin, and make off with the unpleasant booty in a sack is erroneous. This might have been practicable where the earth was loosely piled in and very untidy, but a neatly finished grave would very soon give evidence if it had been tampered with. In the case of a neat or not quite new grave the ingenuity of the resurrectionist came into play. Several feet—fifteen or twenty—away from the head or foot of the grave he would remove a square of turf about eighteen or twenty inches in diameter. This he would carefully put by, and then commence to mine. Most pauper graves were of the same depth, and if the sepulchre was that of a person of importance the depth of the grave could be pretty well estimated by the nature of the soil thrown up. Taking a five-foot grave, the coffin lid would be about four feet from the surface. A rough slanting tunnel some five yards long would, therefore, have to be constructed so as to impinge exactly on the coffin head This being at last struck (no very simple task), the coffin wa lugged up by hooks to the surface, or, preferably, the end of the coffin was wrenched off with hooks while still in the shelter of the tunnel, and the scalp or feet of the corpse secured through the open end and the body pulled out, leaving the coffin almost intact and unmoved. The body once obtained, the narrow shaft was easily filled up and the sod of turf accurately replaced. The friends of the deceased, seeing that the earth *over* his grave was not disturbed, would flatter themselves that the body had escaped the resurrectionist; but they seldom noticed the neatly placed square of turf some feet away. The amount of empty coffins that have been discovered in the operations of sextons and in the course of the reclamation of graveyards proves beyond a doubt that at this time body-snatching was frequent; while the fact that the medical profession was the only class of the community benefiting by the felonies suggests the probability that it stood in the position of instigator. Facts cannot be escaped from, while comment is uncalled for. The hirer of the body-snatcher could be condemned in a stream of sentiment or defended in a column of casuistry, but either would be out of place here.

We have now brought the record of Thomas Wakley up to the end of his student days. In October, 1817, he passed his examination for the Membership of the Royal College of Surgeons of England, and walked home to Membury to announce the news.

(To be continued.)

GLASGOW UNIVERSITY.

QUEEN MARGARET COLLEGE.

ON Monday, Nov. 18th, 1895, a new anatomical department for the women students of the university was opened by the Principal. It was given to the university by the Bellahouston Trustees, who were present on the occasion. A large number of the Senate and the special staff of the women's department attended, as well as a number of the teachers in the other medical schools of the city.

Principal Caird, in declaring the building open, said:—"I do not intend to trouble you with anything of the nature of a formal speech, but it would not be right to let the occasion pass without offering our thanks to the Bellahouston Trustees, by whose munificence the university has been enabled to erect this building, and also our congratulations to the teaching staff of Queen Margaret Medical School, and especially to Professor McKendrick and Dr. Bryce, on the admirable provision that has now been made

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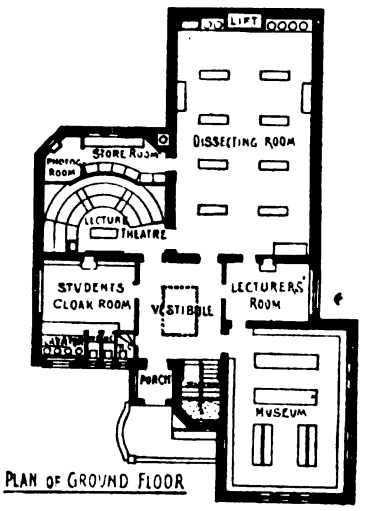
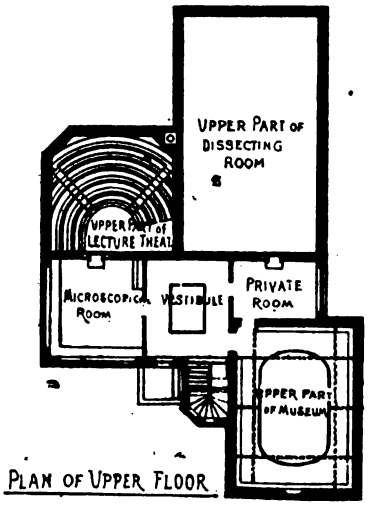
for its anatomical and physiological department. I cannot speak, of course, from the point of view of an expert, but, leaving details of its accommodation and equipment to Dr. Bryce, to whose indefatigable labours we are greatly indebted for designing and superintending the erection of this building, I will only say that I believe all competent judges would pronounce that it is admirably adapted for the purpose for which it is intended, and that it forms a fitting complement to the main building, for the possession and equipment of which we are indebted to the splendid liberality of Mrs. Elder and to the generous and indefatigable labours of Mrs. Campbell. Let me only add that the history of Queen Margaret College, and especially of its medical school, has been one of great and growing prosperity. It began with 13 students, and has now, at the beginning of its sixth year, 67 in attendance. The numbers in the successive years have been as follows: 1890-91, 13 students; 1891-92, 27; 1892-93, 48; 1893-94, 50; 1894-95, 54; and 1895-96, 67. The total number of students in the college during the same years, including the above medical students, was: 1890-91, 194; 1891-92, 201; 1892-93, 146; 1893-94, 156; 1894-95, 200; and 1895-96, 232. In the first two years the students had only the examinations for the triple qualification of the Scotch colleges open to them; but when in 1892 the degrees of the Scottish universities were opened to women, and Queen Margaret College became part of the University of Glasgow, most of the students already in the school of medicine took their examinations over again in the university to qualify themselves for the degree; and all students who have joined it since then, with only one exception, are working for the degree. The facilities for teaching medicine in Queen Margaret College have been good from the first in some of the subjects—e.g., in physics and chemistry—a new chemical laboratory having been constructed in 1888 under the superintendence of Dr. G. G. Henderson, now professor of chemistry in the Glasgow and West of England Technical College. And the clinical and dispensary training to which the students have access is ample, including, as it does, several wards in the Royal Infirmary, and admission to the Royal Hospital for Sick Children, Royal Asylum for Mental Diseases (Gartnavel), Glasgow Maternity Hospital (West-end branch, St. Vincent-street), Eye Hospital (Charlotte-street), and Fever Hospital (Belvidere). But with regard to anatomy the teaching has had to struggle against considerable difficulties, the only rooms in the college which it was possible to devote to that subject being too small, too low in the roof, and somewhat defective as to light. They were only, however, considered as a temporary substitute for the more suitable and spacious laboratories which it was hoped might be looked forward to when funds could be obtained for building them. This hope has now been fully realised by the gift of the Bellahouston Trustees. I think you will agree with me that these facts are most cheering and encouraging to all who are interested in the success of our medical school."

Dr. Bryce, the lecturer on anatomy, expressed on behalf of himself and his students the thanks due to the University Court and to the Bellahouston Trustees for the grant for the new laboratories, stating that if the trustees appreciated the great advantage to the work during their three years of anatomical study they would feel that no grant yet given conferred a more necessary boon. After referring to his indebtedness to Professor Thomson of Oxford, whose model anatomical department he and Mr. Keppie were permitted to examine, he proceeded to describe the building. He said that its main feature was its compactness. Architectural features had not been obtained by any sacrifice of utility, and yet interest had been maintained by an exceptionally simple and frank treatment of structural detail. The central part alone was two storeys high; the rest of the building was of equal height, all lighted from the roof. The whole building was heated by hot pipes and radiators, and the ventilation was very simply managed by apertures opening into a chamber within the chimney stalk surrounding the iron furnace flue. From the entrance hall, which was approximately twenty feet square, opened on the left the students' cloak-room, fitted with lavatory accommodation, a screen for their cloaks and dresses, and lockers for their tools and books. He referred to a feature which characterised the building throughout, and which made it unique among its kind—viz., the simplicity, but variety and artistic quality, of the detail. From the north wall of the hall opened the lecture theatre and dissecting-room. The theatre was about twenty-five feet square and seated for about 100. It was lighted by a large single north window, from which the light was focussed on the area, black board, and diagram screens. The whole north wall was plastered with a cement, giving a smooth white surface, on to which the lecturer could project his lantern pictures. The theatre was placed parallel with the dissecting-room, with a door between the two, and the arrangement allowed them to utilise the space below the seats for a private work-room opening from the dissecting-room, and a dark room for photography. The room was fitted with an apparatus for making lantern slides and with an incubator for supplying chick embryos for the class of



PLAN OF GROUND FLOOR

embryology. The dissecting-room was 48 ft. by 28 ft., and lighted from the north by three ranges of windows arranged like a modern factory roof. He considered the light almost perfect for the purposes of the room. The walls had a dado of white tiles, above which a black board ran right round the room. The remainder of the wall was of adamant plaster. At the north end were a range of basins, a special kind of sink, and a lift from the basement. The floor here, as throughout the rest of the building, was of oak, in narrow planks, closely fitted. From the east wall of the entrance hall the museum



PLAN OF UPPER FLOOR

and lecturer's room opened. The museum was 33 ft. long, 24 ft. broad, and 38 ft. high, and had a gallery opening from the gallery of the vestibule. The disadvantage, in most museums with galleries, of the darkening of the walls beneath was avoided by having side and end lights above the level of the glass cases. Between the museum and dissecting-room was the lecturer's room, opening into both, and fitted for the lecturer's private microscopic work with every contrivance for modern microscopic science. Upstairs over this

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room was a similar apartment for research work opening from the gallery of the vestibule and also from the museum gallery; while on the opposite side of the vestibule was a microscopic room, measuring 20 ft. square, with windows round two sides, for microscopic demonstrations and the regular meetings of the histology class. This room had been fitted up under Professor McKendrick's instructions, for though the building had been designed wholly for anatomy, it had been arranged to utilise this room also for the histology class. In the basement there was a capital workshop for the attendant, stores, preparation-room, &c., and the furnace-room for the boilers of the heating apparatus and for the hot-water system. He concluded by saying that he thought that when they had inspected the building they would admit that it formed a very compact and perfect anatomical department and a very satisfactory addition to the university laboratories.

THE FOLK-LORE OF GOUT.

WE have received from Mr. J. F. Thiselton Dyer, whose name is well-known in connexion with works on Folk-lore and kindred subjects, the following interesting little essay on gout from what may be termed the lay and chatty point of view. Although the communication has of course no medical bearing it will be found none the less interesting to medical men:—

Many years ago one Misausus wrote a curious little book in honour of the gout, with the object of proving that it was a blessing for which mankind could not be too thankful, arguing that if Paracelsus could make men proof against death his secret consisted in inoculating them with gout. But when it was suggested that gouty people do die he humorously replied that men know not when they are well off, but must needs be curing the gout and therefore deal with death's factor, the physician. It was, however, a popular notion that gout lengthened life, and statistics at the present day show that it is not answerable for more than one death in every 1700. Despite, too, the many amusing caricatures of which gout has, from time to time, been made the subject, it was generally supposed that this disease allowed no other to monopolise its place, reminding us of the remark of Posthumus in "Cymbeline," who says:—

> "Yet am I better
> Than one that's sick of the gout; since he had rather
> Groan so in perpetuity than be cur'd
> By the sure physician, death, who is the key
> To unbar these locks."

For a long time, again, gout had the reputation of being pre-eminently the rich man's disease, and Sydenham, who, it may be remembered, was the first man minutely to study the disease, remarked that, unlike any other complaint, "it kills more rich than poor, more wise than simple. Great kings, emperors, generals, admirals, and philosophers have died of gout." A rich man without gout is one of Rosalind's examples of whom time ambles withal; and it is told of an old Scottish gentlewoman that she would never allow that any but people of family could have *bonâ-fide* gout. If it was mentioned that a *roturier* was afflicted with that disease she would shake her head: "Na, na; its only my father and Lord Gallowa' that has the regular gout." Lord Burleigh, like many other statesmen, was subject to gout, on which account Queen Elizabeth always made him sit in her presence, and was wont to say: "My lord, we make much of you, not for your bad legs, but for your good head." In one of Pitt's last letters to the Marquess Wellesley he alludes to his slow recovery from severe attacks of gout, and both the Earl of Chatham and Fox were afflicted by it. Horace Walpole was another victim, and after comically describing himself as wrapped in flannels, like the picture of a Morocco ambassador, he says: "If either my father or mother had had it, I should not dislike it so much. I am herald enough to approve it if descended genealogically, but it is an absolute upstart in me, and, what is more provoking, I had trusted to my great abstinence for keeping me from it; but thus it is." Sydney Smith, when writing to the Countess of Carlisle in his seventy-first year, speaks of his 'gout and humorously writes: "What a very singular disease it is! It seems as if the stomach fell down into the feet. The smallest deviation from right diet is immediately punished by limping and lameness, and the innocent ankle and blameless instep are tortured for the vices of the nobler organs." The Scotch formerly regarded the gout as a fit punishment for the luxurious living of the English, but, as it has been pointed out, this *morale* is spoilt by the gout existing among the poor and temperate Faroë Islanders. It is not confined to any one class, and has afflicted some of the ablest men in all ages; although, strange to say, it is five times more frequent in men than in women. Among some of the literary men and poets who suffered from gout may be mentioned Fielding, Newton, Linnæus, Milton, Congreve, and Dryden; and of warriors included among its victims Lord Howe, Marshal Saxe, Wallenstein, and Condé. Although Dr. Cullen was strongly of opinion that all gout must be considered hereditary, modern science has somewhat qualified this assertion, maintaining that three out of every five cases may be regarded as inherited. But, as it has been recently observed, although "the taint may be hereditary, it may be generated by a low diet and abstinence carried to extremes." It is worthy of note, also, that where there is a predisposition for gout a fit may be induced by the most opposite causes; and, whereas Kingsley's "North-East Wind" will excite it in some instances, a mathematical problem has been known to produce it in another. On the other hand, it seems incredible that anyone should desire gout, and yet it is said that Archbishop Sheldon not only wished for it, but actually offered as much as £1000 to any person who would keep him to it; for he looked upon gout as "the only remedy for the distress in his head."

The many strange remedies propounded, at one time or another, for the relief of gout form an interesting chapter in the history of folk-medicine. Thus Harvey, it appears, was a great martyr to gout, and his mode of treating it was the following. He would sit with his legs bare, even in the coldest weather, on the leads of Cockaine House, and put them in a pail of water until he was almost dead with cold. And it may be remembered that Queen Caroline, the wife of George II., made use of a similar remedy. Culpeper, who was a student of astrology as well as of physic, recommends against the gout this cure: "Take an owl, pull off her feathers, and pull out her guts; salt her well for a week, then put her into a pot and stop it close, and put her into an oven, that so she may be brought into a mummy, which, being beat into powder and mixed with boar's grease, is an excellent remedy for gout, anointing the grieved place by the fire." An old German recipe, which in days past was in high repute in this country, was to take hold of an oak, or of a young shoot already felled, and to repeat these words:—

> "Oak-shoot, I to thee complain,
> All the torturing gout plagues me;
> I cannot go for it,
> Thou canst stand it;
> The first bird that flies above thee,
> To him give it in his flight,
> Let him take it with him in the air."

And when Lord Burleigh was laid up with the gout the Archbishop of Armagh besought him to prove the efficacy of a remedy he had brought with him from Holland, and which was thus: "Take two spaniel whelps of two days old, scald them, and cause the entrails to be taken out, but do not wash them. Take four ounces brimstone, four ounces turpentine, one ounce spermaceti, a handful of nettles, and a quantity of oil of balm, and put all the aforesaid in them stamped, and serve them up, and roast them, and take the drops, and anoint you where your grief is." Cardinal Zinzendorff, as a remedy for the gout, was accustomed to bathe his legs every morning in pig's blood; and Horace Walpole, in one of his letters, says that Mademoiselle de Bonzoli, Marshal Berwick's daughter, assured him at Paris that there was nothing so good for the gout "as to preserve the parings of his nails in a bottle, close-stopped." Another friend recommended him to cut his nails in hot water, but, he adds, "next to my bootikens I ascribe much credit to a diet drink of dock roots." Then, again, Laud, writing to Strafford, says: "I have heard of them that have gone up and down in the dew in their shoes to cure themselves of the gout. Methinks you should try this experiment, rather than lie bedridden as you do." And another old-fashioned remedy consisted in wearing constantly a piece of loadstone in a little flannel bag suspended from a black ribbon round the neck. Hone tells an amusing case of a mad bull giving chase to a gouty old gentleman and frightening his malady away for ever. Among the numerous other

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odd remedies employed for the relief of gout may be mentioned the use of honey from the linden-tree. The Russian peasantry restrict the bees to a period of three days, as they affirm that by this time the valuable saccharine matter is most commonly exhausted, and they assert that it possesses this great property—that no one who drinks it is ever troubled with the gout; and it may be noted that in our own country districts various plants, such as the winter cherry, horse-radish, crane's-bill, herb-gerard, and strawberry, have long been held in high repute among the peasantry as specifics for gout.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A QUARTERLY meeting of the council was held on the 9th inst., the President, Mr. Christopher Heath, being in the chair.

It was decided that the revised Dermatological Catalogue should be issued at 4*s.* per copy.

A report, dated Dec. 16th, from the Committee of Management, was read, and was approved and adopted. It was to the following effect:—

1. That the Bancroft School, Woodford, Essex, be added to the list of recognised places of instruction in chemistry, physics, and practical chemistry and biology. 2. That the West London Hospital be recognised as a place of study during the fifth year of the curriculum. 3. That the Royal London Ophthalmic Hospital, Moorfields, be added to the list of ophthalmic hospitals recognised by the Board. 4. That the examination in elementary physiology, applicable only to candidates under the four years' curriculum, which has hitherto been conducted by papers and written answers, be for the future conducted *vivâ voce*.

A report, dated Dec. 6th, from the Laboratories Committee, was approved and adopted; it was as follows:—

The work in Diphtheria for the Metropolitan Asylums Board.—(*a*) Examination of Material for Diagnosis. Since Oct. 4th, 2415 specimens have been examined and reported upon. The average number of specimens examined per diem has been thirty-four. During the year 10,374 cases have been examined, giving an average of 35·6 per diem. (*b*) The Preparation of Antitoxin Serum. Since Oct. 5th the director has supplied about 2075 doses of antitoxin serum for the treatment of diphtheria in the hospitals of the Metropolitan Asylums Board, and all the demands have been fully met. Six horses are being used, and three others are being prepared.

Mr. Bryant, on behalf of Miss Baillie, presented to the College some further letters of John Hunter, Edward Jenner, and other persons of note. The council voted their best thanks to Miss Baillie for her gift.

The President reported the proceedings at the half-yearly meeting of Fellows on the 2nd inst. The two resolutions passed at that meeting were read. The first, which stated that it was desirable to give to Members of the College direct representation upon the council, was referred to the Deputation Committee, to consider in connexion with the subjects already submitted to them. The second resolution, approving of the admission of women to the diplomas of the College, was not proceeded with.

The Senior Vice-President reported that the President, Mr. Christopher Heath, had consented to deliver the next Hunterian Oration, and accordingly declared Mr. Heath to be appointed Hunterian Orator for 1897.

A letter was read from the Civil Rights Defence Committee enclosing copies of memorials to be presented to Members of Parliament, inviting their support in the work of the committee, and asking for signatures. Several members of the council signed.

BRITISH MEDICAL BENEVOLENT FUND.

THE annual general meeting of subscribers to this fund was held on Tuesday, Jan. 14th, at the residence of the treasurer. The chair was taken by Mr. J. T. Mould, F.R.C.S., Vice-President, in the absence of Sir James Paget, Bart., President, unavoidably prevented from presiding. Amongst the subscribers present were Dr. Sidney Phillips, Dr. Bright, Dr. Baines, Dr. Felce, Dr. Bowles, Dr. Holman and Dr. Lowe, and Mr. Parker, Mr. Young, Mr. Page, Mr. Kiallmark, Mr. Roche, Mr. Lynch, Mr. Byam, Mr. Morgan, and Mr. Howard Marsh; the treasurer, Sir William Broadbent, Bart.; and the honorary secretaries, Dr. Samuel West (finance) and Mr. Edward East (cases). The financial statement was submitted and the report of the committee read, and from them it appeared that subscriptions, £991 8*s.*, and donations, £700 18*s.* 8*d.*, together £1692 3*s.* 8*d.*, had been received, the income from investments amounting to £2333. £1548 had been distributed in grants, and 107 annuitants had received £2114 6*s.* 8*d.* The distribution had been effected mainly through the agency of the Cheque Bank in monthly instalments, a mode found by the committee to be exceedingly advantageous. Eighteen annuitants had been elected to supply vacancies caused by death, and grants had been made to 158 applicants, the total number of applications received being 212. Three legacies had been received during the year—viz., £500 from the estate of the late Mr. T. M. Stone, £45 from that of Miss Wallace, and £300 from that of the late Miss Brigstocke. During the year the trustees had asked to be relieved from the responsibility they had borne so long, and had resigned their office. Their resignation had been received by the committee with regret and an expression of thanks for their services in that capacity. Sir William Broadbent, Mr. John H. Morgan, and Dr. Samuel West had accepted office in their place. Several changes in the useful office of hon. local secretary had taken place. Dr. Markham Skerritt had been succeeded by Dr. Michell Clarke at Bristol, and Dr. Duncan succeeded Dr. Miller at Dundee; new secretaries had been appointed for Tottenham, Hampstead, and Kilburn—viz., Dr. G. A. Watson, Mr. J. W. Pilcher, and Dr. T. Morton; and Mrs. E. E. Palmer had accepted the post of lady collector for Norwich. Dr. Baxter Forman, Dr. Marmaduke Prickett, and Mr. Edward East joined the committee, and Sir Henry Acland, Sir Edward Sieveking, and Mr. Herbert Page were appointed vice-presidents. Mr. Edward East resigned his appointment as secretary for cases and received the thanks of the meeting for his long services; he is succeeded by Mr. Joseph White, 6, Southwell-gardens, S.W. Votes of thanks were passed by acclamation to the treasurer, secretaries, auditors, and to the medical press, and Mr. Mould was thanked for his services to the fund and conduct in the chair.

THE MIDWIVES QUESTION AND THE LANCASHIRE AND CHESHIRE BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

THE following is the last utterance of the special committee of the Lancashire and Cheshire Branch of the British Medical Association in connexion with legislation for the registration of so-called midwives. It is in the form of an appendix to a report of the committee received *nem. con.* at its meeting on Jan. 8th, 1896.

APPENDIX.

The prolonged and careful consideration which your committee has given to the midwives question warrants the belief that a short *résumé* of the conclusions arrived at would be acceptable to the Branch.

Your committee is convinced:—

I. That the existing state of things is not satisfactory.

II. That there does exist a large class of persons too poor to pay ordinary medical fees, too proud to ask for medical relief through the existing machinery of the Poor-laws, and who consider that the skill of those members of our profession who have lowered their remuneration to an extent which is degrading our calling in the eyes of the public is no higher in comparison with that of others than is their fee or ethical position.

III. That the continuance of this state of things constitutes a grave imperfection in our system and leaves a distinct opening for the pseudo-philanthropist—ever ready to pose as a "public benefactor."

IV. That the Midwives Registration Bills hitherto promoted are essentially bad in principle, and, even were they practicable schemes, would not remedy the above-mentioned defects.

V. Your Committee think the following suggestions for effecting an improvement in the present unsatisfactory condition of things worthy of the serious and careful attention of the branch:—

A. That an easy and ready method of effecting such improvements consists in a slight modification of the machinery by which Poor-law "medical relief" is administered, on the following lines:—

(1) That orders for such relief should be available from some source other than the relieving officer.

(2) That a much larger number of "district medical officers" be authorised to receive such orders.

(3) That in emergency cases and midwifery a person should be able to apply to any registered medical practitioner in the district, who would secure his fee from the parochial authority.

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B. A measure for the protection of pregnant and lying-in women and newly-born children, by promoting the better training of women as midwifery nurses, and their compulsory registration as such; thereby placing them under efficient medical control, thus obviating the mischievous practices of the present uncontrolled certified or diplomated "midwife," and the dangers of unskilled attendance.

C. A system whereby competent nurses could be made available to carry out the instructions of the medical attendant (after the plan of the "district nurses" at present in vogue in many places)—thereby bringing the poor who require aid during midwifery attendance in line with those requiring surgical or medical aid.

Your committee believes that such improvements would at once do away with the asserted necessity for a so-called "midwife," and, with her, a vast amount of crime and suffering.

THE CASE OF MR. LIONEL SMITH.

WE publish a second list of contributions to this most deserving fund, and beg again to urge the hardship of Mr. Smith's case upon the attention of our readers. He has engaged to leave England in a fortnight's time to take a small post under Government in Zululand. He is an absolutely ruined man through no fault of his own, and he has charges upon him that make it very difficult for him to leave England and begin an official career again until they are settled. The following contributions additional to those published in THE LANCET of Jan. 4th have been received by us:—

Amount previously acknowledged ...	£48	8	0
A. O.	1	0	0
Dr. F. H. Champneys	2	2	0
Dr. A. Findlater	1	1	0
Mr. W. G. Groves	2	2	0
Mr. W. H. Hubert...	0	10	0
Scholastic, Clerical, and Medical Association, Limited	1	1	0
Dr. R. C. Shettle	1	1	0
Dr. Henry Sutherland	1	1	0

The following sums have been received by Dr. F. de Havilland Hall:—

The Medical Defence Union	£10	10	0
Dr. Goodhart	10	0	0
Mr. Thos. Smith	3	3	0
Dr. Philip Frant	5	5	0

Additional contributions may be sent to THE LANCET Office, cheques and P.O.O.'s being made payable to the "Lionel Smith Fund."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Report upon the Sanitary Condition of the Administrative County of Bedford for the Year 1894, by LEONARD WILDE, M.D., M.R.C.P., D.P.H.—In this report, which is based upon the annual reports of the local medical officers of health, Dr. Wilde points out that as regards the general sanitary condition of the county the most frequent and noticeable deficiencies remain pretty much the same as those dwelt upon in the previous year—viz., unwholesome water-supplies, especially in the rural districts, pollution of streams and roadside ditches, the absence of system in the removal of refuse and disposal of excreta, and the lack of infectious hospital accommodation and public disinfection. The population of the various sanitary districts reporting to the County Council in 1894 is estimated by the medical officers of health as follows: urban sanitary districts, 79,750; rural sanitary districts, 103,199. The birth-rate in urban districts was 27·2; in rural districts 26·6 as against 29·6 for England and Wales, the highest birth-rate per 1000 living being recorded in the Luton urban and the Wellingborough rural districts. The death-rate per 1000 of population was for the urban districts 14·1, in the rural 14·6, as against 16·6 for England and Wales, the highest death-rate, 18·6 per 1000, being reached in the Eaton Bray rural district, and the lowest, 11·4, in the borough of Bedford. In those districts where it has been possible to institute a comparison with the returns of previous years there appears to have been a remarkable decline both in the general and special death-rates. The relative infantile mortality per 1000 births was in the urban districts 126 and in the rural 118, which, although lower than the same rate for England and Wales, does not show, as Dr. Wilde notes, any appreciable diminution upon previous years. The zymotic death-rate was in the urban districts 1·4 and in the rural districts 1·3, as against 1·76 for England and Wales. Two cases of small-pox were notified during the year. Both occurred at Bedford and illustrated very clearly how the disease may be spread by tramps. Owing to the delay in publishing the report of the Royal Commission on Vaccination, Dr. Wilde points out that in certain districts of the county vaccination is rapidly becoming voluntary. Indeed, the half-yearly returns made to the Wellingborough board of guardians on Aug. 14th, 1895, showed that with 708 births in the union only 4 children had been vaccinated! Taking the whole county of Bedford, only 37·5 per cent. of children born are accounted for in the vaccination returns. There has been a decided diminution in the prevalence of scarlet fever during the year, only 24 cases having been reported—8 in the urban and 16 in the rural districts. On the other hand, 37 deaths occurred from diphtheria, 13 in the urban and 24 in the rural districts, the disease assuming epidemic proportions in the Biggleswade and Woburn rural districts. Eleven deaths occurred from enteric fever, of which 4 belonged to the urban and 7 to the rural districts. Of the latter 4 were in the Wellingborough union, now outside the county, a district in which the medical officer of health has strongly condemned the water-supply. Whooping-cough was responsible for 80 deaths and measles for 55. The prevalence of the latter during the year was a great deal above the average and necessitated the closure of schools in several districts, owing to extensive epidemics having broken out. No case of cholera or choleraic diarrhœa was notified in the county. The death-rate for the county from phthisis was 1·1 per 1000, for the urban districts 1·4 and for the rural districts 0·9. Notwithstanding the advisability of adopting the Infectious Disease Notification Act, half the urban districts and two of the rural districts still neglect to do so, although the medical officers of health of these districts are all strongly in favour of the Act. Dr. Wilde also strongly urges the adoption of the Infectious Disease Prevention Act in the county. Although the important subject of the provision of hospital accommodation for the isolation of infectious disease has received a good deal of attention, he is unable to report any practical outcome as a result, six districts having still no hospitals at all, and one but temporary accommodation for one kind of disease. In most of the hospitals in the county a charge is made for the maintenance of patients, but naturally in the case of the very poor this charge is waived and the burden thrown on the ratepayers. Dr. Wilde is of opinion that, except for patients residing outside the district and making use of hospitals within the county, to exact a charge is a very undesirable procedure. The condition of disinfection within the county appears to be in a still more backward state than isolation, for beyond fumigating and cleansing infected houses disinfection of clothes by steam is not undertaken by a single local authority. As regards water-supply, many of the districts are dependent on wells entirely, which in too many instances are surrounded by pig-styes, middens, &c., and frequently inadequately guarded from surface percolation. In the case of Leighton Buzzard urban and Wellingborough rural districts the medical officers point out that the streams are contaminated by sewage pollution. In most of the towns and villages Dr. Wilde is of opinion that the removal and disposal of sewage are in a most unsatisfactory condition.

Report of the Sanitary Condition of the City of London for 1894, by W. SEDGWICK SAUNDERS, M.D., F.S.A.—In submitting his annual report for 1894 to the Commissioners of Sewers Dr. Sedgwick Saunders is able to state that the general health of the City is good, no epidemics having prevailed during the year, while the sanitary condition of the houses and streets has been maintained at a high level of excellence. The estimated *night* population for the City at the end of June, 1894, was 34,831, being a decrease

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of 3489 since 1891; and, assuming that the same rate of diminution will go on till 1901, the population at that date may be estimated at 28,357. The estimated *day* population for June, 1894, was 315,400, an increase of 14,016 upon that of 1891, and giving a density of day population of approximately 469 per acre as against the thirty-three chief cities and boroughs, which average 34·9 per acre. Calculated upon the night population, the density would be only 51·8 persons per acre. Of persons belonging to the City 600 died during the year, of whom no less than 10·5 per cent. died from injuries and violence, a large proportion of these including persons found drowned in the Thames, whose deaths, their residences being unknown, were registered as occurring in the City. Many newly born infants were found concealed in railway carriages, cloak-rooms in stations, dustbins, and other places. The death-rate for the City in 1894 was 17·2 per 1000, as against 17·4 for the whole of the metropolis. The deaths of children under one year of age to 1000 births were 157, against 143 for the whole of London. The birth-rate was only 14·9 per 1000, being the lowest in the metropolis. Of the 520 infants born in the City, 410 were successfully vaccinated, 2 were insusceptible, 44 died before the age for vaccination, 17 were postponed by medical certificate, 42 removed to other districts and were lost sight of, and 5 were still pending at the end of the year. During the year a number of adults were revaccinated. Of deaths from zymotic diseases, including those which occurred in public institutions within the district, 5 were from scarlet fever, 31 from diphtheria, 23 from enteric fever, 4 from erysipelas, 3 from measles, and 12 from whooping-cough. There were no deaths from small-pox. Out of the total number of cases reported 65·6 per cent. were removed to hospital, while of scarlet fever and diphtheria cases no less than 86·8 per cent. of each were removed. Dr. Sedgwick Saunders bears strong testimony to the promptitude and thoroughness with which the ambulance service of the Metropolitan Asylums Board is carried out. In a population of 1066 inhabiting the artisans' dwellings in Houndsditch, and composed of 53·5 per cent. of adults and 46·5 per cent. of children, the death-rate was 14·1 per 1000 per annum, of which 60 per cent. was apportioned to children under five years of age. The birth-rate was 44·1 per 1000, and the zymotic death-rate 2·81 per 1000, as against 0·72 in the City and 2·6 for the metropolis. The Commissioners of Sewers have, after much labour and inquiry on the part of their sanitary committee, secured a commodious building at 6, Cotton-street, Aldersgate-street, at a rental of £275, which has been adapted for the combined purpose of an office for the sanitary inspectors and a shelter for persons temporarily dispossessed of their houses during disinfection after infectious disease. The place was opened on Jan. 25th, 1894, and since then 77 persons have received temporary accommodation in the house. Dr. Sedgwick Saunders notes the steady increase in the use of electricity in the City, there being now nearly 3000 private consumers of electricity, employing 136,000 incandescent lamps, while 483 electric lamps are placed in the principal streets, necessitating the removal of 1338 gas lamps. By extended use of the "skip system" for the removal of refuse from houses it has been possible to clear away a large number of public dustbins from courts and alleys, and thus to obviate a constant source of complaint and annoyance. The refuse is treated in a destructor apparatus at Letts's Wharf, but the result of its working has not been so satisfactory as in other cities, due, Dr. Sedgwick Saunders believes, to the small quantity of carbonaceous matter left in London dustbins and the large quantity of straw and packing material collected from markets and warehouses, which check rather than encourage the free combustion necessary for obtaining the full advantage of cremation. During the year 1401 premises were inspected, necessitating 9998 visits. At 936 places grave sanitary defects were detected, rendering it imperative in many cases to insist on a completely new system of drainage being laid down, as, for instance, at Christ's Hospital and other important places. To remove foul emanations from sewers arising from ventilators in roadways shafts have been erected, wherever possible, in front of adjacent buildings where no objections were raised by owners. In many streets a systematic house-to-house inspection has been carried on, with the result that several houses have been condemned as permanently unwholesome and unfit for human habitation, and have been accordingly either closed or demolished. During 1894 about 340,956 tons of meat were received at the Smithfield markets, including 35,050 tons of general foreign and meat produce, 71,638 tons American-killed fresh meat, and 49,908 tons Australian and New Zealand-killed fresh meat. Dr. Sedgwick Saunders notes that, while the Australian and New Zealand trade has increased only 3⅜ per cent. during the year, the American has increased 26 per cent. Of the total amount of meat received ½ per cent. was seized, condemned, and destroyed as unfit for human food. The treatment adopted for rendering meat unfit for consumption is first to slash it and then immerse it in a bath of chlorides of sodium and calcium, sulphate of iron, picric acid, and water. During 1894 there were delivered at Billingsgate-market 128,361 tons of fish, of which the inspectors of the Fishmongers' Company seized and destroyed 1220 tons as being unfit for human food, the whole of the expenses of this work being borne by the Company. In consequence of some sensational articles in the public press depicting the horrors of the only two common lodging-houses in the City, Dr. Sedgwick Saunders personally inspected both. He found them, with the exception of the kitchens and lavatories, in fairly good order, and by no means in such a deplorable condition as described. He could not recommend any method of improving the defective portions short of demolition and reconstruction. In his capacity of Public Analyst, Dr. Sedgwick Saunders analysed 161 articles during 1894, exclusively of frequent examinations of the City water-supply, and of chemicals required for the manufacture of disinfectants. In no case was it deemed necessary to institute a prosecution, although in some instances the articles came perilously near adulteration, this being especially noticeable in samples of milk. The examination of the water from time to time showed its standard of purity to be satisfactory.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Stockport Urban Sanitary District.—During 1894 the general death-rate of Stockport was but 18·7 per 1000, a rate which is 4 below any previously recorded for that district, and as much as 6·7 per 1000 below the corrected average death-rate for the decennium 1884–93; the lessened mortality for 1894 was, Dr. Charles Porter tells us, mainly due to the diminished mortality from zymotic diseases. In connexion with the mortality statistics Dr. Porter has drawn up an instructive table showing the death-rate for each of the years 1891–94, inclusive, for each age group of the population, differentiating males from females. The infantile mortality for 1894 was no less than 192 per 1000 births, a rate which compares most unfavourably with that of other large towns for the same year. As was the case in Dr. Porter's last annual report, a considerable amount of space is devoted to the subject of infantile mortality. He is evidently not inclined to attach very great importance to the question of compulsorily prolonging the period at present laid down by law during which women shall, after childbirth, absent themselves from work as a means of diminishing infantile mortality; indeed, he thinks that "insanitary conditions of residence, and especially of excrement disposal, may constitute quite as potent a factor of infantile mortality as female factory labour." Dr. Porter is of opinion that some of the proposals for checking infantile mortality in factory towns have approached the subject from "a too purely medical, theoretical, and utopian point of view"; and, with the object of learning something as to the practicability of possible preventive or remedial measures, he visited thirty of the largest mills in Stockport and talked over matters with the managers, overlookers, and operatives. As a result of his inquiries, Dr. Porter is strongly convinced that, to be successful, any proposal for ensuring the better care of infants must be "of a nature to adapt itself to existing conditions" rather than to "suddenly dislocate the deep-rooted customs and prejudices of factory operatives." He suggests that the provisions of the Infant Life Protection Act, 1872, should be so extended as to include women who now receive children for the day, and that thus these persons should be brought under the supervision of the sanitary and other officials. It is also suggested that the coroner shall be notified within twenty-four hours of the occurrence of every death among infants under one year of age. Although Dr. Porter is of opinion that action in the direction indicated would do something to improve matters, he evidently considers that the gradual diffusion of knowledge as to the management of infant life is the direction in which we must in the main look for improvement. There were in Stockport during 1894 37 cases of small-pox, and of these 4 were unvaccinated,

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Of these 4 no less than 3 died, while among the remaining 33 vaccinated cases there were no deaths. Dr. Porter brings prominently before his sanitary authority the necessity for adopting a system of excrement disposal other than that by means of the privy pits now obtaining. There are, it appears, no fewer than 5000 to 6000 of these pits in the borough; none of them are properly water-tight, and many are in positions which render the pollution of the subsoil under habitations a matter of certainty. In eighty instances the privy contents have to be carried through living-rooms. The picture Dr. Porter paints of the dangers and defects of these privy pits should certainly induce the sanitary authority to take steps for their abolition. Enteric fever has, he thinks, been frequently spread by means of these "relics of barbarism" in Stockport. In the matter of diphtheria, arrangements have been made with Professor Delépine of Owens College to examine bacteriologically specimens taken from cases suspected of that disease; and we congratulate the sanitary authority, and also Dr. Porter, in having established the system. A charge of 3s. to cover expenses is made for each tube, but this charge is defrayed by the sanitary authority in cases where patients cannot afford to pay it.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6273 births and 3861 deaths were registered during the week ending Jan. 11th. The annual rate of mortality in these towns, which had increased in the four preceding weeks from 17·8 to 20·7 per 1000, declined again last week to 18·5. In London the rate was 18·1 per 1000, while it averaged 18·8 in the thirty-two provincial towns. The lowest rates in these towns were 12·3 in Bradford, 12·5 in Cardiff, 13·0 in Sunderland, 16·8 in Swansea, and 15·0 in Plymouth; the highest rates were 22·1 in Birmingham, 22·9 in Preston, 23·5 in Liverpool, 24·0 in Norwich, and 29·7 in Salford. The 3861 deaths included 508 which were referred to the principal zymotic diseases, against 544 and 563 in the two preceding weeks; of these, 199 resulted from measles, 105 from whooping-cough, 73 from diphtheria, 48 from scarlet fever, 40 from "fever" (principally enteric), 37 from diarrhœa, and 6 from small-pox. No fatal case of any of these diseases occurred last week in Swansea; in the other towns they caused the lowest death-rates in Hull, Sunderland, Brighton, Nottingham, and Bradford, and the highest rates in Burnley, Birmingham, Norwich, Wolverhampton, and Salford. The greatest mortality from measles occurred in Liverpool, Blackburn, Norwich, Birmingham, Burnley, and Salford; from scarlet fever in Gateshead; from whooping-cough in Sheffield, Newcastle-upon-Tyne, Bolton, Leeds, and Derby; and from "fever" in Burnley and Bolton. The 73 deaths from diphtheria included 48 in London, 6 in Birmingham, and 3 in West Ham. Three fatal cases of small-pox were registered in London and 3 in West Ham, but not one in any other of the thirty-three towns. There were 66 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 11th inst., against 82, 77, and 68 at the end of the three preceding weeks; 20 new cases were admitted during the week, against 5, 12, and 9 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2839, against 2725, 2798, and 2835 on the three preceding Saturdays; 290 new cases were admitted during the week, against 210, 184, and 320 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 318 and 314 in the two preceding weeks, rose again last week to 320, but were less than half the corrected average. The causes of 67, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bradford, Leeds, Sunderland, Newcastle-upon-Tyne, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Leicester, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the four preceding weeks from 18·9 to 21·0 per 1000, declined again to 19·6 during the week ending Jan. 11th, but was 1·1 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·6 in Leith and 15·4 in Perth to 21·9 in Glasgow and 24·4 in Greenock. The 573 deaths in these towns included 23 which were referred to whooping-cough, 19 to diarrhœa, 14 to measles, 3 to "fever," 2 to diphtheria, 2 to scarlet fever, and not one to small-pox. In all, 63 deaths resulted from these principal zymotic diseases, against 77 and 82 in the two preceding weeks. These 63 deaths were equal to an annual rate of 2·2 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 35 and 29 in the two preceding weeks, further declined to 23 last week, of which 17 occurred in Glasgow, 2 in Dundee, and 2 in Aberdeen. The deaths from measles, which had been 7 and 10 in the two preceding weeks, further rose to 14 last week, and included 7 in Greenock and 6 in Glasgow. The deaths referred to different forms of "fever," which had declined from 8 to 4 in the three preceding weeks, further fell to 3 last week, of which 2 occurred in Glasgow. The mortality from scarlet fever and from diphtheria was considerably below that recorded in any recent week. The deaths referred to diseases of the respiratory organs in these towns, which had been 142 and 135 in the two preceding weeks, further declined to 131 last week, and were 84 below the number in the corresponding week of last year. The causes of 41, or more than 7 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·3 and 28·8 per 1000 in the two preceding weeks, declined again to 28·3 during the week ending Jan. 11th. During the thirteen weeks of last quarter the death-rate in the city averaged 24·0 per 1000, the rate during the same period being 18·0 in London and 17·2 in Edinburgh. The 190 deaths registered in Dublin during the week under notice were within 3 of the number in the preceding week, and included 7 which were referred to the principal zymotic diseases, against 3 and 7 in the two preceding weeks; of these, 3 resulted from diarrhœa, 2 from "fever," 1 from measles, 1 from whooping-cough, but not one either from small-pox, scarlet fever, or diphtheria. These 7 deaths were equal to an annual rate of 1·0 per 1000, the zymotic death-rate during the same period being 2·6 in London and 1·9 in Edinburgh. The 3 fatal cases of diarrhœa exceeded the number recorded in any recent week. The deaths referred to different forms of "fever," which had been 1 and 3 in the two preceding weeks, declined again to 2 last week. The 190 deaths in Dublin last week included 23 of infants under one year of age, and 56 of persons aged upwards of sixty years; the deaths of infants corresponded with the number in the preceding week, while those of elderly persons exceeded those recorded in any recent week. Eleven inquest cases and 9 deaths from violence were registered; and 70, or more than a third, of the deaths occurred in public institutions. The causes of 9, or nearly 5 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL CAREW has been transferred from Colchester to Edinburgh as Principal Medical Officer of the North British District. Surgeon-Majors Magrath and Carter and Surgeon-Lieutenants Smith and Barker have embarked in the *Britannia* for India. Surgeon-Major Allport has arrived on leave from Ceylon. Surgeon-Major Carleton has been posted to Cork, and Surgeon-Lieutenant-Colonel Latchford, retired pay, to Galway.

NAVAL MEDICAL SERVICE.

The following appointments are notified:—Staff-Surgeons: W. Tait to the *Impregnable*; A. W. May to the *Cambridge*; E. Ferguson to the *Benbow*; J. H. Beattie to the *Endymion*; and J. T. W. S. Kellard to the *Inflexible*. Surgeons: V. G. Thorpe, G. Allan, and E. A. Penfold to the *Endymion*; H. B.

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Beatty to the *Royalist*; T. E. Honey to Haslar Hospital; G. R. McMahon to the *Hebe*; A. X. Lavertine to the *Dreadnought*; B. G. Heather to the *Stork*; J. D. Hughes to the *Bellona*; W. W. Pryn to the *Orlando*; F. W. Collingwood to the *Penguin*; J. J. Walsh to the *Vivid*; and T. D. Halahan and E. S. Miller to the *Repulse*.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain John Will Cook, M.D., 2nd Volunteer Battalion the Essex Regiment, to be Surgeon-Captain; Surgeon-Lieutenant C. E. L. B. Hudson, F.R.C.S. Eng., to be Surgeon-Captain.

VOLUNTEER CORPS.

Rifle: 4th Volunteer Battalion the Queen's (Royal West Surrey Regiment): Edward Arbuthnot Malcomson, gent., to be Surgeon-Lieutenant. 26th Middlesex (Cyclist): The resignation of Surgeon-Lieutenant R. S. O. Dudfield, M.B., is post-dated to Nov. 2nd, 1895.

THE ROYAL MILITARY COLLEGE, SANDHURST.

The report of the Board of Visitors appointed by the Secretary of State for War for the inspection of the Royal Military College, Sandhurst, has just been issued as a Parliamentary paper. The inspection was made on July 27th, 1895, and the visitors in their report, which is signed by Sir Arthur D. Hayter, Field-Marshal Sir L. A. Simmons, General Sir H. A. Smyth, Lieutenant-General Arthur Lyttelton-Annesley, and Lieutenant-General Julian H. Hall, state that "The health of the cadets for the past year was not so good as usual, owing to the severe epidemic of influenza which attacked the college this spring. No less than 111 admissions from this disease occurred, but as a rule the type was a mild one, only three or four cases having given rise to any anxiety. The average daily sick had been 4·27 out of an average strength of 367, giving a daily percentage of 1·16." In 1893 the Board stated that the wooden canteen used by the subordinates, some 200 in number, was "dangerous, discreditable, and insanitary," and they recommended it should be removed for the safety of the adjacent buildings. Last year they again urged the necessity for the construction of a suitable building. At their last visit they found this canteen in a more evil condition than before, and can now only say that, in addition to being a source of danger to adjacent buildings, it is a disgrace to any public establishment. The Board express their dissatisfaction with the existing time-table, which they consider requires revision. One of the hours of study which seems decidedly out of place is that from 2.15 to 3.15 P.M. The cadets lunch at 1.20 and are therefore unlikely to be in a suitable condition for study, particularly in hot weather. Similarly, the study from 9 to 9.45 P.M. cannot be productive of much benefit to the students. The Board have had before them the standing orders for both Woolwich and Sandhurst, and they are surprised to find that although these establishments are maintained for the same purpose—viz., the education of young gentlemen of about the same age for service in the army—the orders regulating the discipline, education, &c., differ widely in several essential points. The Board recommend that they be revised and made to agree as much as possible. There are five cadets in excess of the establishment, but none of them live outside the college.

THE FRENCH IN MADAGASCAR.

The publication of a Madagascar Yellow-book has naturally recalled attention to the late expedition. According to the latest accounts the sanitary condition of the French troops in Madagascar is now fairly satisfactory. The government and administration of the country by the French are very well and judiciously carried on by General Duchesne and his force. The expedition, from a hygienic point of view, was attended with deplorable results. As regards the clothing, feeding, cooking, water-supply, regulation of work and duties, sanitary precautions, and medical supplies there were lamentable deficiencies, causing an amount of misery and mortality which might, in great part at any rate, have been avoided. It is not possible, of course, to protect troops altogether against the effects of a hot and malarious climate and unhealthy environment, but a good deal may nevertheless be done in this direction which, in defiance of medical opinion, was altogether disregarded and left undone during the late expedition. The Madagascar campaign furnishes a warning, and an object-lesson of the results of neglect of the hygiene of war which deserves to be carefully studied by Governments and military departments. We are sincerely sorry for the hardships and sufferings undergone by the French troops, who set an excellent example of fortitude, gallantry, and discipline throughout the campaign.

INDIAN HYGIENE.

An experimental trial is being made of the Pasteur filter in the cantonment of Dum Dum in connexion with the health of the British army in India. There can be no doubt that the use of this filter in the French army, and of a somewhat similar one in the German army, for the sterilisation of water, has been attended with very successful results in diminishing the prevalence and mortality of typhoid fever. We have frequently called attention to the very serious amount of this disease among our troops in India. In the late Chitral campaign it made its appearance in the camping grounds and caused a number of deaths among the British troops, just as had previously been the case in the Afghan campaigns. The wholesale introduction of these filters into India would, no doubt, involve a large expenditure, but the Indian Government would be fully justified in incurring that expense if the trial of these filters at some selected stations was followed by a decided decrease in the cases of typhoid fever. Of course the thing to be aimed at is that the water-supply for potable purposes is obtained from a pure source and free from all liability to contamination, and that it is kept pure until it reaches the troops, in which case no filters are necessary, but this cannot always be done.

THE ASHANTI EXPEDITION.

News regarding the force advancing on Kumasi may be expected at any time, for the force must now be very near to, if not in, the Ashanti capital. Of course, there has been a certain amount of disease among the troops—cases of heat apoplexy, malarial fever, and dysentery. Climatic fever is the main source of the sickness, and it has occasionally been of a severe or even fatal type. Prince Henry of Battenberg felt the heat a good deal during the march from Cape Coast Castle to the Prah, and not long after crossing that river was attacked with fever of malarious origin which rendered it very inadvisable for him to continue the march with the troops, and he consequently returned. The climate of the uplands is much healthier and better than that of the seaboard, and it is understood that the principal medical officer of the expedition is on the look-out for some locality which may act hereafter as a hill station or sanatorium for the troops.

THE SANITATION OF BANGALORE.

Bangalore, notwithstanding its favourable position and climate, is not so healthy an Indian station as it should be. Many cases of enteric fever have occurred from time to time, and not long ago an outbreak of cholera arose at that station in connexion with which Surgeon-Major Ross was sent there from Secunderabad on special duty. The Bangalore station municipality have applied for the retention of this officer's services in order that plans for the establishment of an improved conservancy system for the station may be completed and a public health department formed.

NAVAL MEDICAL SUPPLEMENTAL FUND.

At the quarterly meeting of the Directors of the Naval Medical Supplemental Fund, held on Jan. 14th, Inspector-General W. H. Lloyd, M.D., in the chair, the sum of £117 was distributed among the several applicants.

The Queen has been pleased to give her Royal licence and authority to Surgeon-Lieutenant-Colonel T. J. Gallwey, A.M.S., to accept and wear the insignia of the Turkish Order, Medjidieh (third class). The decoration has been conferred by the Khedive of Egypt, authorised by the Sultan, in recognition of the services of this officer while actually and entirely employed under the Egyptian Government.

The next examination of Surgeon-Captains at home and abroad for promotion will be held on the 27th and 28th of this month.

PAINLESS SLAUGHTER OF CATTLE.—The trial of a Painless Cattle-killer took place last Tuesday at the slaughter-house at Malton, under the auspices of the Church Society for the Promotion of Kindness to Animals and the Church Sanitary Association. Two beasts were killed by a master butcher of the town, instantaneously and painlessly, to the satisfaction of all present.

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Correspondence.

"Audi alteram partem."

WHAT IS A NATURAL LABOUR?

To the Editors of THE LANCET.

SIRS,—The amount of comfort which certain members of our profession derive from the consideration of the term "natural labour" reminds me of an old Scotch lady who was often heard to say that her existence would be quite insupportable but for that blessed word "Mesopotamia." Having occasion to speak on this subject at the meeting of the Lancashire and Cheshire Branch of the British Medical Association, held at Liverpool on Jan. 8th to consider the Draft Midwifery Nurses Bill of the General Medical Council, I thought it wise to submit the definition clause of that Bill, which contains the term in question and also some others of very vague import, to Messrs. Boote and Edgar, solicitors, Booth-street, Manchester, who kindly furnished me with a valuable legal opinion. The definition clause of the Bill reads thus:—

"Clause 2. *Definitions.*—In this Act the term 'midwifery nurse' means a woman who attends cases of natural labour and afterwards tends the mother and child during the lying-in period, under such rules, regulations, and medical control and supervision as may be from time to time laid down by the Midwifery Nurses Board."

The questions submitted, and the legal answers to the same, I append:—

Questions.—What is the legal significance of the term "natural labour" and the words "medical supervision and control"? Do the latter words necessarily imply medical assistance? Having regard to the meaning of these terms, what legal powers in restraint or regulation of practice have the Midwifery Nurses Board under this Bill?

Legal opinion.—"It is impossible to say what is the legal significance of the term 'natural labour.' If any question arose in a court of law as to its significance, the court would have to rely upon the evidence of experts—i.e., medical gentlemen. In all probability the words 'natural labour' would be defined to mean a labour which originated other than artificially—i.e., by the means of accident, drugs, or instruments, or other than in the ordinary course of nature. There is no special legal significance attached to the words 'medical supervision and control.' These words do not necessarily imply medical assistance, and it would be quite competent for the Midwifery Nurses Board to dispense with the same. How the ease or difficulty of a labour affects its perfect 'naturalness' is hard to understand, and I hope, in connexion with any proposed midwifery legislation, to hear no more of such a blockhead of a term as 'natural labour.' It is also very desirable that the Midwives Board should not have power to dispense with medical assistance, but that the obstetric functions of the midwife should be very clearly stated in the Act itself."

I am, Sirs, yours faithfully,

Salford, Jan. 11th, 1896. W. FRASER.

"DEATH RETURNS IN THE STRAITS SETTLEMENTS."

To the Editors of THE LANCET.

SIRS,—I notice in THE LANCET of Nov. 2nd, 1895, which has just reached me, a letter from Dr. Simon, Registrar-General, Straits Settlements, dealing with certain statements of your Singapore correspondent. I regret that you did not consider it necessary to publish the letter on the same subject which you received from me along with Dr. Simon's, as it would have shown that, though your correspondent, in dealing with the Colonial Secretary's letter of June 14th, was in error in asserting that the medical officer of health had no information of the rise in the death-rate in April till June 1st, he would have been correct had he stated that the weekly statistics furnished to the health officer, giving no particulars of residence and no indications of zymotic disease, could not have guided that official in house-to-house visitations or inquiry as to concealment of infectious disease, the absence of such inquiry forming apparently the burden of the complaint of the local Government. I regret to have again to trouble you with a letter on this subject, but, in justice to your correspondent as well as to myself, I feel that I cannot allow your editorial note that you had received from me a communication "to the same effect" as Dr. Simon's letter to go without correction. I enclose a copy of my former letter. I remain, Sirs, yours faithfully,

W. R. C. MIDDLETON, M.B., C.M., D.P.H.,
Nov. 26th, 1895. Medical Officer of Health for Singapore.

[COPY OF LETTER OF OCT. 1ST.]

"*To the Editors of* THE LANCET.

"SIRS,—Permit me to correct a slight inaccuracy in the letter of your Singapore correspondent appearing in the issue of THE LANCET of Aug. 31st. Under the heading of 'The Government and the Municipality' your correspondent states that 'the death return for April was delivered by the Government to the municipal authorities so late as June 1st, that this was the first official indication to the medical officer of health that the death-rate in April was so unusually high.' This latter statement is incorrect. Weekly returns are furnished by Government to the medical officer of health from which the death-rate can be calculated. But these returns furnish only the causes of death and the numbers dying from each cause which are registered at the various police stations. No indication is given of the localities in which these deaths occur, and thus information is not supplied on a point of the first importance if any steps are to be taken to detect the existence and prevent the spread of epidemic disease. In the monthly returns furnished by the Government to the medical officer of health full information is given of the name, age, sex, nationality, occupation, residence, &c., but these returns only reach the medical officer of health in the latter half of the month succeeding that in which the deaths occurred, and thus may be too late for the adoption of any preventive measures. Were the particulars mentioned in the monthly reports supplied also in the weekly, a valuable aid would be given to the medical officer of health in the suppression of outbreaks of zymotic diseases.

"I am, Sirs, yours faithfully,
"W. R. C. MIDDLETON, M.B., C.M., D.P.H.,
"Medical Officer of Health, Singapore.
"Singapore, S.S., Oct. 1st, 1895."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 2nd, 1895, which has just arrived, I notice a letter from Dr. Simon, Principal Civil Medical Officer and Registrar-General of Births and Deaths, Straits Settlements, in which he states that there are two misstatements in the "Notes from Singapore" which you were so good as to publish on Aug. 31st. Dr. Simon has, however, carefully avoided the main issues of the case, and has written in such a manner as to mislead those who are ignorant of the present inefficient method of death registration in vogue in these Settlements, and to which you yourselves had previously drawn attention in the columns of THE LANCET.[1] In the paragraph in the Singapore letter headed "The Government and the Municipality" I attempted to demonstrate not only the unfairness but also the absurdity of the Government in attempting to blame the Commissioners for want of attention and supervision on the part of their medical officer. The Governor was of opinion that, with the data given him, the municipal health officer ought to have suspected the presence of "some cause of death intentionally or carelessly kept back by the natives," &c.

Now, Sirs, let us see whether, with the data to hand, it can be expected that the municipal health officer is able to gain such information at a date early enough to be of any real service to the community. Every week the Registrar-General transmits to the municipal health officer a return of the deaths occurring within the municipal limits. Upon this Dr. Simon lays such great stress in his letter that your readers must consider that these returns are of a full and reliable nature. But are they? Certainly not, you will say when I inform you that the sole information recorded is the number of deaths and the causes of these notified at each of the police stations during the past week. It is only in the monthly returns that the name, nationality, occupation, &c., and, most important of all, the place of residence, are given. The weekly returns are practically useless as they are at present made out. The municipal health officer may suspect the prevalence of a fatal epidemic from the fact of an increased death-rate being recorded in a police district, but in the absence of the addresses of the deceased he cannot verify his suspicions until the monthly returns are forthcoming. What a hold an epidemic may obtain under these conditions may be well imagined, especially when one considers that in this special case the April returns were not available until towards the end of May. Surely when they had lain in the hands of the Principal Civil Medical Officer for a whole month some suspicion with respect to the unusually high death-rate might be expected to

[1] THE LANCET, Aug. 10th, 1895.

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have arisen in his mind. Considering the facts of the case in an impartial manner, one is drawn to the conclusion that the onus of the delay in recognising the prevalence of cholera lies with the Government and not with the municipality. That such a delay in transmitting the monthly returns is not unique is proved by the fact that, at a meeting of the municipal commissioners on Oct. 23rd, the president apologised for his inability to present the returns for September, as they had not yet been received from the Registrar-General. On inquiry I find that they were received on Oct. 29th. Given reliable returns, the occurrence of a number of deaths in, say, one house would at once arouse suspicion. The house would be visited by the municipal health officer without delay, and the reason for the high death-rate might at once be discovered. It did happen that in these April returns, which arrived a month late, eleven deaths were found to have taken place within one house. So far as the system holds at present, these deaths were almost certainly recorded as deaths from "fever," of which the number was excessive in these April returns, whereas in all probability they were due to cholera.

In Penang there has been in vogue for the past five years such a weekly return as I now call for, and the plan works admirably. Why it should not obtain in Singapore, which is immediately under the eye of the Registrar-General, is beyond my comprehension. The fact is that the present system is an exceedingly imperfect one. Even although these weekly and monthly returns are published, one cannot rely upon their authenticity so far as the causes of death are concerned. This has been already shown by Dr. Dumbleton, a former medical officer of health for Singapore, in a paper which you have lately quoted so freely in your columns. The Government itself recognises this and has already published in the *Government Gazette* the draft of a "Bill to amend the Law with respect to the Registration of Births and Deaths," a copy of which I enclose. I trust that this Bill will come before the Legislative Council at an early date and that no further delay will be incurred in making it active.

With regard to your statement that you have received a communication from Dr. W. R. C. Middleton, Medical Officer of Health for Singapore, to the same effect as Dr. Simon's letter, I am exceedingly disappointed in that you did not think fit to publish it. As the writer of the "Notes from Singapore" allow me to subscribe myself—

Your obedient servant,

Singapore, Nov. 26th, 1895. A CORRESPONDENT.

"WORD-BLINDNESS AND VISUAL MEMORY."

To the Editors of THE LANCET.

SIRS,—With regard to Sir William Broadbent's note[1] on my communication on "Word-blindness and Visual Memory," with your permission I should like to make a few brief observations. I have delayed replying until I was able to read over the cases referred to by him. Whilst at once admitting that previously to Kussmaul's article in Ziemssen's Cyclopædia attention had been directed to the condition subsequently termed "word-blindness," I still assert that "Kussmaul first clearly pointed out that blindness for words is capable of being met with clinically as an isolated condition." Kussmaul's words are: "A complete text-blindness may exist, although the power of sight, the intellect, and the power of speech are intact." In the cases referred to by Sir William Broadbent, and reported by him in the Transactions of the Royal Medical and Chirurgical Society before the publication of Kussmaul's article, the patients were unable to read printed and written characters, but in all of them there were other speech disturbances present—e.g., verbal aphasia or amnesia in a greater or less degree. In the case reported in THE LANCET of Dec. 21st, 1895, I have taken especial pains to point out that there were no speech difficulties whatever, the mental defect being strictly limited to an inability to recognise all the printed and written characters, which were previously known to the patient, with the exception of Arabic numerals, and hence my reference to Kussmaul as being the first to point out the possibility of such a condition being met with clinically.

I am quite in agreement with Sir William Broadbent when he states that the term "word-blindness" is somewhat misleading. In my communication I have stated that the terms "word-blindness," "cécité verbale," and "Wortblindheit" are not sufficiently precise without further definition, as there are different forms which must be carefully distinguished from one another. When a patient cannot read it is altogether inaccurate and misleading to label it as a case of "word-blindness" without more detailed examination. Our increased knowledge of this condition now demands a more accurate description of the exact nature, character, and extent of any defect to interpret written or printed symbols. Sir William Broadbent asserts that "word-blindness" in his experience "has always been associated with inability to name an object presented to the vision, and that, if a man cannot name a watch, *a fortiori* he cannot name a word." Now it seems to me that he misapprehends the essential character of my case and of similar cases belonging to this class. In my patient the difficulty was not in naming the word, but in recognising the individual letters of which each word was composed. When a word was spelt out to the patient letter by letter he named it without a moment's hesitation, and when he learned to recognise the individual letters, again by persistent practice, he could read. Such cases, in my opinion, would be more correctly described by the term "letter-blindness." On the other hand, cases are on record where the patient, whilst recognising the individual letters, could not combine these into syllables and words, and even these cases may be divided into different categories. Hence it is evident that in every case where there is inability to read the symptom should be carefully analysed and the exact character and extent of the defect recorded. When we possess a larger number of accurately recorded cases it may be possible to arrive at a clearer classification and a more precise nomenclature, and I hope that in the future such cases will be subjected to a more comprehensive, rigorous, and exact examination than they have hitherto for the most part met with.

I am, Sirs, yours very truly,

JAMES HINSHELWOOD.

Elmbank-street, Glasgow, Jan. 11th, 1896.

[1] THE LANCET, Jan. 4th, 1896.

THE HADDEN FUND.

To the Editors of THE LANCET.

SIRS,—Will you kindly insert in your next issue the enclosed list of subscribers to the above fund up to this date? These gentlemen have responded promptly to the appeal contained in THE LANCET of Jan. 4th, and I would ask all who intend to give their substantial support to Dr. Hadden in a matter which concerns the entire profession to do so without delay.—I am, Sirs, yours faithfully,

JAMES CRAIG,
Hon. Sec. and Treasurer.

York-street, Dublin, Jan. 13th, 1896.

	£	s.	d.
Dr. J. W. Moore, Dublin...	1	1	0
Sir Thornley Stoker, President R.C.S.I.	1	1	0
Dr. E. H. Bennett, Dublin	1	1	0
Mr. H. R. Swanzy, Dublin	1	1	0
Mr. Kendal Franks, Dublin	1	1	0
Dr. Walter Smith, Dublin	1	1	0
Dr. Wallace Beatty, Dublin	1	1	0
Dr. Duffey, Dublin	1	1	0
Dr. O'Carroll, Dublin ...	1	1	0
Dr. Parsons, Dublin ...	0	10	6
Mr. F. T. Heuston, Dublin	1	1	0
Mr. J. H. Scott, Dublin ...	1	1	0
Dr. C. B. Fitzgerald, Dublin	1	1	0
Dr. H. C. Tweedy, Dublin	1	1	0
Sir Wm. Stokes, Dublin	1	1	0
Mr. Bernard, Derry... ...	1	1	0
Dr. Drury, Dublin	1	1	0
Dr. Harley, Dublin	1	1	0
Dr. Craig, Dublin	1	1	0
Dr. Little, Dublin	1	1	0
Dr. Grimshaw, President R.C.P.I.	1	1	0
Dr. F. W. Kidd, Dublin...	1	1	0
Sir C. Nixon, Dublin ...	1	1	0
Mr. Wm. Thomson, Dublin	1	1	0
Mr. Arthur Benson, Dublin	1	1	0
Dr. McCutcheon, Dublin	1	1	0
Dr. Jos. Redmond, Dublin	1	1	0
Dr. Bewley, Dublin... ...	1	1	0
Dr. Wright, Dalkey... ...	1	1	0
Dr. Huggard, Davos-Platz	1	1	0
Dr. David Hadden, Wexford	1	1	0
Sir C. Cameron, Dublin...	1	1	0
Sir P. C. Smyly, Dublin...	1	1	0
Dr. J. M. Finny, Dublin...	1	1	0
Dr. Pollock, Blackrock ...	1	1	0
Dr. S. R. Mason, Dublin...	1	1	0
Dr. P. W. Maxwell, Dublin	1	1	0
Dr. W. Moore, Physician in Ordinary to the Queen	1	1	0
Mr. J. B. Story, Dublin...	1	1	0
Mr. E. S. O'Grady, Dublin	1	1	0
Dr. J. J. Cranny, Dublin	1	1	0
Dr. John Murphy, Dublin	1	1	0

MEDICAL CERTIFICATES AND THE LONDON SCHOOL BOARD.

To the Editors of THE LANCET.

SIRS,—There is a widespread feeling abroad that the strained relations between the medical profession and the School Board in London on the subject of medical certificates are likely to be injurious to the public interests as well as to those of medical men. In conjunction with Dr. Ward Cousins and others I am trying to organise a meeting of those

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on whom the burden of giving medical certificates to School Board children falls, with a view to a deputation to the School Board on the subject. We shall be glad to receive the names of medical practitioners in the metropolitan area, whether in general or hospital or dispensary practice, who sympathise with us in our desire to make certification effective and to secure due respect to the medical profession. An immediate intimation will oblige.

I am, Sirs, your obedient servant,
JAMES GREY GLOVER, M.D. Edin.

25, Highbury-place, N., Jan. 15th, 1896.

WOMEN AND THE PROFESSION IN INDIA.

To the Editors of THE LANCET.

SIRS,—With reference to a remark made regarding Zenana work in India at an extraordinary Comitia of the Royal College of Physicians of London,[1] held on Oct. 24th last, that "there was no difficulty in the way of medical men entering the most jealously guarded harems when there was need for their services," it is to be observed that such a remark strictly applies only to Bengalees—i.e., Hindoos of Bengal—in Calcutta and Lower Bengal. These same people when in Upper India strictly seclude their women in harems. I submit that in the North Western Provinces, Oudh, the Punjab, and Rajpootana women of the upper and middle classes of all the various nationalities, Mahommedan women especially, are kept in such strict seclusion in the harems or Zenanas that medical men cannot have access to them. A medical man when requested to treat a native woman is expected to judge of all symptoms by feeling the pulse. A screen is made by holding up a cotton sheet across the room; on one side of the screen are the patient and her female friends, on the other the medical man and her male friends. The patient's hand is then passed under the screen and the pulse is felt; if the tongue is to be examined a slit is made in the screen and the patient thrusts her tongue through it for inspection; if the eyes are to be examined the patient places one eye by turns at the slit; if palpation of organs is requisite the medical man passes his hand under the screen. Stethoscopic examination is made only after the patient has been scrupulously covered so that no part of her person is exposed excepting the part to be examined.

In the troubles of parturition a medical man is either not permitted to render manual aid, or, when permission is granted, it is often too late to save life. I have before me a case of arm presentation in the wife of a Hindoo of the shopkeeper caste; permission was delayed for days, and when examination was made the fœtus was putrid and the mother in the last stage of exhaustion. Delivery was effected by evisceration of the uterine contents, and the mother succumbed to tetanus. Now, had there been a qualified midwife or lady medical practitioner at hand, the mother at least would have been saved. Another painful case was that of a Mahommedan woman in labour, a primapara, whom I was asked to treat. She had been some days in labour, and the head was *said* to be presenting. No manual examination could be permitted. I could do nothing except cautiously give a dose or two of ergot. No effect following its administration, I declined to do anything further unless allowed to examine the patient. From the state of the pulse I gathered that she was rapidly sinking. I brought this fact home to her friends and begged that an examination might be allowed, and I said that if the native midwife had correctly reported as to the presentation safe and rapid delivery could be effected. Her father-in-law and husband said that they would be disgraced if they permitted the examination. *The woman died undelivered* while I was still in the house. But, irrespectively of parturition, there are, we know, innumerable conditions where, to afford efficient treatment, it is imperative that the medical man should see and thoroughly examine his patient. Not to speak of surgical treatment, even medicinal treatment often requires examination not practicable under the Zenana system. The well-to-do classes will not allow it, and hence a vast amount of suffering within reach of relief goes unrelieved. The poorer women of those classes who attend at our dispensaries often come when it is too late; or, when they attend at a dispensary in which there is a native female hospital assistant they stipulate that they shall not be subjected to examination by a male. If there is no difficulty in medical men entering harems the whole of Lady Dufferin's noble philanthropic scheme for affording medical aid to Indian women must be declared uncalled for; but the response made to the call for funds for the scheme by the wealthy natives and princes of India speaks unmistakably of the usefulness of the institution, and Lady Dufferin's name will never fade from the memory of India's daughters.

I am, Sirs, yours obediently,
G. D. MCREDDIE, M.D. BRUX.,
Late Civil Surgeon in India (retired).

Stone-court, Greenhithe, Kent, Dec. 26th, 1895.

[1] THE LANCET, Nov. 2nd, 1895.

FRACTURES OF THE LOWER LIMB.

To the Editors of THE LANCET.

SIRS,—In a lecture on Fractures of the Lower Limb by Mr. Christopher Heath, published in THE LANCET of Jan. 4th, 1896, I find the following: "I would remind you how important it is, in fracture of the leg particularly, that the fracture should be set thoroughly and accurately. Of course, I know well there are many difficulties. Immediately after the accident all the muscles of the limb are more or less in a state of spasm, and tend, therefore, to pull the bones into abnormal positions, but that state of spasm passes off in the course of a few hours, and you can generally manage with care and patience to put the limb in a proper position, and unless this is done, and done accurately, the surgeon has not treated the case properly." And again: "I may say that this method of pegging and screwing has been recommended by an enterprising surgeon, not only for compound, but for simple fractures. But I cannot conceive how anyone can believe that it is justifiable to convert a simple fracture into a compound fracture, and of this I am quite certain, that the majority of surgeons for the present will remain content with the usual methods of treatment."

Now, Sirs, I agree most thoroughly with a portion of Mr. Heath's statement as far as I understand it—namely, that *if the ends of the fragments are not put in accurate apposition* and the bone restored to its normal shape *the surgeon has not treated the case properly*. But I maintain, as I have done over and over again, that in the large proportion of oblique fractures of long bones, especially of the lower extremity, it is impossible to do this by means other than operative. I would quote the following lines from a short paper on the subject of the treatment of fractures published by me:[1] "It is very possible that I may be accused of exaggerating the evil results of the treatment of fractures in the present day, and that many may not be inclined to agree with the mechanical principles upon which my statements are based. It is, however, quite open to anyone to prove the former by publishing an account of a series of fractures sustained at the same period of life which show better results, and the latter are capable of absolute demonstration." Surely, as I pointed out here, the question of the possibility of reconstituting the form of the bones by means of splints is, if true, capable of complete verification. As Mr. Heath asserts that he is able to do this, may I ask him to produce, at a meeting of the Clinical Society of London, a series of half-a-dozen cases of oblique fractures of the tibia and fibula, and a similar number of Pott's fractures, which he has treated in sequence, and give the Fellows of the Society an opportunity of forming an opinion on the success of his treatment and on the wisdom of the statement which he makes—namely: "But I cannot conceive how anyone can believe that it is justifiable to convert a simple fracture into a compound fracture," &c.? We are all anxious to learn the best modes of treating fractures, and Mr. Heath's very clear statements of his views on the subject give us an excellent opportunity of doing so.

I am, Sirs, yours faithfully,
W. ARBUTHNOT LANE.

St. Thomas's-street, S.E., Jan. 14th, 1896.

"A PLEA FOR THE PASTEUR TREATMENT OF HYDROPHOBIA."

To the Editors of THE LANCET.

SIRS,—Dr. H. Howard Murphy's argument in pleading for the Pasteur treatment of hydrophobia would be cogent if the

[1] Brit. Med. Jour., April 20th, 1895.

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premisses on which it is founded were sound; but I doubt whether this is the case, and I should like to point out where they seem to be at fault. In the first place, I would disclaim all sympathy with the objects and methods of the Anti-vivisection Society, though I admit that their compilation of deaths following Pasteurism is useful, for this has been neglected by everybody else. In the last nine or ten years—i.e., since M. Pasteur's treatment was commenced—very nearly 17,000 persons have been subjected to the treatment at the Paris Institute, and 283 of these have died from hydrophobia. Dr. Murphy assumes that 20 per cent. of these 17,000—i.e., 3400—would have died but for this treatment (I presume that the figures 30 per cent. and 3200 given in his letter are printer's errors). This amounts to an average of 340 per annum. This assumption is derived partly from *à priori* reasoning from principles based on M. Pasteur's experiments, and partly from guesses at the probable frequency of the development of hydrophobia in those persons who have been bitten by presumably rabid animals. There is, as far as I know, no *à posteriori* evidence to confirm it, and in the absence of such evidence it cannot be held to be proved that M. Pasteur has saved a single case. It is quite possible that there may be some fallacy in the experiments, or that the frequency of hydrophobia among bitten cases has been largely over-estimated. Now, of these 17,000 by far the majority (nearly seven-eighths, I believe) come from France alone. It would, therefore, follow (according to Dr. Murphy) that M. Pasteur's treatment has saved nearly 300 natives of France (seven-eighths of 340) from hydrophobia every year. How many other cases of hydrophobia there may be every year in that country which have not undergone preventive inoculation, I do not know. This number seems incredibly large for a population scarcely, if at all, out-numbering that of the British Isles, and, moreover, one has not heard of any great prevalence or extensive outbreak of rabies in that country.

Can it not be shown by official statistics whether or not the mortality from hydrophobia in France has been reduced to a corresponding degree by 300 or by any other number per annum since the introduction of Pasteurism? If it can be shown to be so reduced it would, of course, furnish, in the absence of any other explicable cause, strong, almost conclusive, support to the theory of M. Pasteur's followers, and I should be most happy to know it. Dr. Murphy further says, with regard to fatal cases of hydrophobia, that "till 1880 (1886?) every conceivable plan of treatment had been tried, and none proved in the least effectual." And, again: "Every one of the 283 died in spite of every effort to save them." I demur to this. There are many cases on record which have been successfully treated. I collected a series of them and published an abstract of it in your columns in March, 1890.[1] Since then I have read reports of several fatal cases, and in not one of them has any real effort been made or have any efficacious means been attempted to save them. It is really painful to hear of the utterly ineffectual and futile methods that are the only ones resorted to with the hope of curing or relieving the patients. In such desperate cases history shows that anything but skilful and heroic treatment is seldom of any avail, very free blood-letting being the sheet-anchor. Dr. Murphy says that "the medical profession is not biased in favour of antirabic inoculation." I do not agree with this statement, for it appears to me that an undue amount of faith is almost invariably placed in any novel method of treatment emanating, with a scientific hall-mark, from a pathological laboratory—witness the tuberculin fiasco. And, on the other hand, there is still a deplorable prejudice, owing to ignorance and timidity, against blood-letting, the disuse of which, as Sir B. W. Richardson truly said twenty years ago, makes the present age the most feeble and ineffectual, in the matter of treatment, in the whole history of medicine.

I am, Sirs, yours faithfully,

F. LUCAS BENHAM, M.D. Lond.

Elizabeth-street, S.W., Dec. 23rd, 1895.

P.S.—The number of deaths from hydrophobia among persons who have undergone M. Pasteur's treatment is given in the *Annales de l'Institut Pasteur* as eighty-four up to the end of June, 1895. Why is this number alone given, instead of the much larger figure of the Anti-Vivisectionist Society's statistics? Does not the Pasteur Institute follow up the subsequent history of its cases?

[1] THE LANCET, March 1st, 8th, and 15th, 1890.

"ANTI-STOOP" v. SHOULDER-STRAPS.

To the Editors of THE LANCET.

SIRS,—I regret that Mr. Bernard Roth in his letter to THE LANCET of Dec. 14th last should have so erroneously described my "anti-stoop" as to apply to it the term "useless straps." If he will examine the appliance himself at Messrs. Arnold and Sons, or even the diagrams which appeared with your notice of it on Nov. 23rd, 1895, he will see that the only straps about it are the belt round the waist and the back strap connecting the appliance to the belt, neither of which are in the slightest degree essential to its efficacy. With regard to Mr. Roth's objection to all mechanical aids to correct roundness of the shoulders I have nothing to say. His quotation of an eminent authority in support of this view has been sufficiently dealt with by Mr. Heather Bigg in THE LANCET of Dec. 21st, 1895. But I might observe that his quotation had reference to an appliance very different from my "anti-stoop." The circumstances which caused me to invent my "anti-stoop" did not have their rise in a desire to reap riches from its sale. Having always been round-shouldered, I had endeavoured in vain to obtain a cure by shoulder-straps and had suffered much pain from their use. It then occurred to me that a pair of steel arms coming up the back and branching out below the neck, so as to pass over and to the front of the shoulders and there to exert a "springy" elasticity to press the shoulders backwards, would not only be painless if the pressure were transmitted by means of padded blocks, but would probably be effective also. I accordingly had a pair made and wore them for a little over two months, by which time I had received incalculable benefit. I was fully two inches broader across the chest after than I had been before, and narrower to about the same extent across the back. In fact, the coats which I possessed before donning my "anti-stoop" were at the end of these two to three months quite unwearable.

Just a few words regarding the evanescent character, as Mr. Roth declared it must necessarily be, of any such improvement brought about by mechanical means. I have not once worn my "anti-stoop" during the last nine or ten months, but, so far as my friends or I myself have been able to notice, there has been no reversion to the round-shouldered-ness which before had been so conspicuous. I attribute this result to the fact that my "anti-stoop" does not splint the shoulders back and keep them so—thus superseding the muscles of the back, as Mr. Roth seems to assume—but that, by acting as a continuous and slightly assistant reminder to the wearer to hold himself or herself up, it stimulates the use of those muscles and thus strengthens and invigorates them.

I am, Sirs, yours truly,

W. A. CARSON,

Eccles, Dec., 1895. Inventor of the Carson "Anti-stoop."

THE PROTECTION OF THOSE NURSING PATIENTS SUFFERING FROM DIPHTHERIA AND OTHER SPECIFIC INFECTIOUS DISEASES.

To the Editors of THE LANCET.

SIRS,—Some few years ago, when in correspondence with my friend, the late Professor Tyndall, on the above subject, I asked him whether he thought it probable that a suitable covering of antiseptic cotton wool to the nose and mouth of those engaged in nursing sufferers from the above diseases would act as a filtering agent to the micro-organisms. His reply was in the affirmative. I am anxious to know whether your readers have had experience of this method, and more especially so in cases of typhus fever and diphtheria.

I am, Sirs, yours truly,

St. Leonards, Jan. 15th, 1896. SAMUEL LEE.

THE MEDICAL EDUCATION OF WOMEN.

To the Editors of THE LANCET.

SIRS,—Now that most of the portals of medicine are open to women, and that it remains but for time to speak as to the viability and vitality of the movement, it may not be out of place to suggest that the deans of the schools of medicine for women should recommend some age limit under which

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the study of medicine should not be commenced. In one of the northern schools of medicine for women one child aged sixteen has entered the session, and several more under twenty years of age; for a time some were attending classes with their hair down and in short dresses. As a not unnatural consequence of such an unseemly state of things one comes across one such student in tears over the difficulties of a tough bone, another in a state akin to ecstasy over the suggested simple solution of a supposed problem, and so on—certainly *ad nauseam* and almost *ad infinitum*. Most of our hospitals have some age limit under which women are not admitted to learn nursing. May not the "younger sister" well take a leaf from the book of its "elder sister"—the nursing profession—in this respect? If this is not done, and the above condition of things continues to obtain, it might be well for the dean of any such school to slightly alter its title and term it in future, "School of Medicine for Women *and Children*."

I am, Sirs, yours faithfully,

Jan. 15th, 1896. AUTO.

DIAGNOSTIC DIFFICULTIES IN THROAT CASES.

To the Editors of THE LANCET.

SIRS,—The following cases occurred to me in December, 1895. On Dec. 12th I found two girls, seven and ten years of age respectively, suffering from suspicious sore throat, with enlarged tonsils and greyish-white spots over these and the fauces. Both attend a school which is seldom free from diphtheria or scarlet fever. There was no rash, but high fever and considerable depression. These I notified as "diphtheritic throat," for want of a better term. On the 16th an elder brother exhibited a similar, though less severe, sore throat, and was only laid up for a day or two. On the same day a boy aged six years fell ill with sore throat, and I notified these in the same way as the first two. Forty-eight hours later the latter patient had a well-marked scarlet rash, and I thereupon notified him again as suffering from scarlet fever. The mother, who nursed all these children, fell ill with sore throat on the 24th, and was notified at once as suffering from "scarlet fever or diphtheria." She was removed to hospital before the rash appeared, and I see that the medical officer of health, in sending in my account for confirmation, has corrected my primary diagnosis and has called them all "scarlet fever." I make no objection to this, being in some doubt myself; and it is but fair to state that a bacteriological examination of the first two cases gave negative results as regarded the Löffler bacillus, although alike streptococci, diplococci, and organisms resembling Bacillus coli communis when stained with ordinary aniline were present; all but the former two disappeared on staining by Gram's method. The above were taken direct from the tonsils, and the next day I inoculated a serum-agar tube from the elder girl's tonsils, and obtained a growth in two days which gave identical results. In another throat case in a young fellow aged twenty, where there was a temperature of 100° F. and an abundance of greyish spots on the soft palate, cheeks, and gums, together with much depression followed by considerable cardiac weakness, bacteriological examination gave like results, and on being asked by the relatives to state whether it was diphtheria I gave a negative reply on the strength of the bacteriological examination. These are some of the difficulties which beset us now in practice, and they are not diminished by the recent debate on diphtheritic bacilli by the Pathological Society. Is it possible that the pyogenic organisms play a more extensive *rôle* than is already attributed to them, and that their presence in suspicious throats may indicate a more than casual connexion with scarlet fever and diphtheria? I may say, in conclusion, that in both houses deaths have taken place from scarlet fever and diphtheria within the last two years. In my microscopic examinations I had the able assistance of Dr. Kanthack and his assistants.

I am, Sirs, yours obediently,

London, Jan. 10th, 1896. M.D.

AT Leeds, on Monday last, Henry A. Albutt, who had been struck off the Medical Register for publishing certain books, and afterwards, it was alleged, continued the use of the letters "M.R.P.L.S.A.," was fined £5 and 2 guineas costs for falsely taking and using titles implying he was registered under the Medical Act of 1858.

THE BATTLE OF THE CLUBS.—XVII.[1]

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 71.)

BIRMINGHAM: THE PROFESSION AND THE FRIENDLY SOCIETIES.

THE hardships of contract work for friendly societies were brought under my notice by several practitioners in Birmingham. A consulting physician related that he had once been on the list of consultants for the friendly societies dispensary. Here a medical man is employed at a fixed salary and has to reside on the premises. On one occasion this medical officer came to fetch the consultant to see the ex-president of the friendly society, who lived some three miles away. As this patient exercised great influence in the society the medical officer did not dare to neglect him, but devoted much time in driving out a long distance, with the consultant physician, so as to attend this important ex-official. As the inevitable result less influential members of the society had to wait. These institutions impose on their medical officers more work than they can possibly accomplish, and, as someone must be neglected, naturally this falls to the least influential members. Thus, in this case, the medical officer was obliged to devote many hours to visiting the ex-president, who lived in a comfortable villa situated at a considerable distance from the majority of the patients, and who could very well have afforded to pay a proper fee to a private practitioner. While the medical officer was doing this, members of the society, who were really poor men, and who were therefore entitled to medical aid on cheap club terms, could not be attended in time.

During his period of service the five children of this medical officer contracted measles of so malignant a type that three of them died. The consulting physician then summoned the whole of the committee to his house. He spoke to them in the severest terms. He explained that the house in which they had lodged their medical officer and family was unhealthy and unsuited for a dwelling. The committee listened to these reproaches very quietly and seemed to agree, saying they would see what could be done. The consulting physician, however, heard nothing more of them for a long time and was not called in for any further consultations. At last he accidentally came across one of the printed reports published by this friendly society, and there he found that his name no longer appeared as the consulting physician, but had been replaced by the name of a junior member of the profession. Thus he had been quietly set aside, and it is very probable that his successor was never told the reason why such alteration had been effected. On making further inquiries in other quarters I found that the death of these three children from malignant measles was not the first disaster of this nature which had occurred at the friendly societies' dispensary. The daughter of the previous medical officer had died from diphtheria while living there. This fatal house, I was pleased to hear, has finally been given up, and now the dispensary is located in more wholesome quarters. Many were the complaints that I heard against this institution. A lodge of Foresters, after a few years' experience, gave it up in disgust. By more than one person I have been told that the sort of practitioners who accept employment as dispensary officers for friendly societies are not unfrequently young men who have not proved their capacity, or old men who have too clearly proved their incapacity. Sometimes they are retired naval medical officers, who have acquired such a rough manner in dealing with sailors that they give offence to a civil population comprising many women and children. Other men may be able practitioners, but not as sober in their habits as might be desired. At the Birmingham friendly societies' dispensary there was one medical officer

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton. (16) Jan. 4th, 1896, Birmingham.

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who in every respect deservedly enjoyed the highest reputation, but he had a disease of the knee which prevented his undertaking ordinary practice, and he was therefore glad to accept the surgery work of the dispensary.

Some twenty years ago there was an agitation, and even a sort of strike, against the clubs and friendly societies at Birmingham. The medical officers were then paid, as a rule, only 2*s.* 6*d.* per member per annum. A declaration was signed by nearly all the members of the profession in the town that they would not replace any medical officer who had resigned on the question of pay unless the society offered 5*s.* per annum per member. Thereupon several medical officers asked for an increase and, on this being refused, resigned their posts. There were, however, one or two practitioners who marred considerably the effect of this movement. It was discovered that many of the patients went to the house of a Professor of the Medical College. When this leading member of the profession was accused of acting against the pledge taken and against the interests of the profession, he replied that he did not see the patients, it was only his son who gave them advice. Thus, while the club practitioners were endeavouring to protect themselves, they found their efforts defeated by the action of one of the leaders of the profession. Under such circumstances it was not surprising that the medical men began to give way. Nevertheless, substantial advantages were secured, and there was an all-round increase of pay. Many societies then gave 4*s.*, and some gave even 5*s.*

A Birmingham practitioner who for many years has had an extensive experience of club-work informed me that the best clubs in Birmingham were those established by the Jews and the coffee-house or restaurant waiters and assistants. They paid 5*s.* a year and had no juvenile branches. He thought that the practitioner who combined club practice with private practice had far more zest in his work, the former leading to and helping the other. Within the last few weeks he had succeeded in raising the subscription of the "United Brothers'" Medical Aid Society from 3*s.* to 4*s.* He pointed out to them that drugs were more expensive than they were formerly. Considering the increased cost of dispensing, on the one hand, and, on the other hand, the fact that the working classes were now as a rule earning higher wages, it was only fair and just to claim on behalf of the medical officers a higher scale of remuneration. These arguments were found to be unanswerable, and the "United Brothers" finally accepted their medical officers' terms and granted the 33 per cent. increase. Other societies, however, are not so liberal-minded, and to enforce reform much stronger medical organisation will be necessary than that which actually exists in Birmingham. The local branch of the British Medical Association has, it is true, recently formed an ethical section, and it is to be hoped that they will take up this matter energetically, though as yet nothing has been done. Then there is the Midland Medical Society, which meets every alternate Wednesday. This association has about 300 members, but membership is not limited to the town of Birmingham. Also the members devote their time mainly to discussing medical and surgical cases and technical papers. This, though the older society, is attended by many of the younger members of the profession—namely, by those who are most concerned in the question of club practice. The Midland Medical Society has, therefore, great interests engaged in the question of contract work and club practice. It may, therefore, be expected that this body will move in the matter; but here, again, it may be said that practically nothing has been done. Finally, there is the Queen's College, or the Mason College, Medical Society, composed of young qualified practitioners and medical students. They also meet to read and discuss technical papers and have not yet realised that medical education may consist of something else than the study of technical medical subjects: that there are the material interests of the profession, the ethical laws by which it should be governed, which also require careful investigation and thoughtful study. There is, however, in all these organisations the making of one compact and thoroughly representative medical league that would be strong enough to handle these difficult questions. Nor is there any reason why the special purpose and work of these medical societies should be altered and disturbed; but each society might, with advantage, hold special meetings to discuss medical ethics and the position of the profession in respect to the medical aid clubs and associations. Then these societies could amalgamate for that one purpose and invite all medical men who do not belong to any of these organisations to join also, in order to defend the material interests, and maintain, or it may be in some cases re-establish, the dignity and the independence of the medical profession.

A correspondent writes:—"I have read with much interest the article of your Special Commissioner headed 'The Battle of the Clubs—XV.' I do not know whether he has yet pointed out the following fact, of which he may not be aware—viz., that some of these insurance societies are not only simply transferring from one medical man to another, but they are actually selling for substantial sums, practices which other medical men have built up after several years of arduous work, and, for aught I know, they are possibly seeking excuses to get rid of their old medical officers in order not only to get the pecuniary value of what is already a marketable practice, but also to secure the services of a new medical officer, on a sufficiently permanent basis, to build up an additional saleable value when the practice is again sold. I have quite recently heard of several cases where practices have been offered by insurance societies for sale. Again, not only do some of these secretaries transfer patients to other medical officers as new members after they have got into arrears, but I have every reason to believe that they actually collect these arrears and keep them entirely for their own benefit. These facts cannot be too widely disseminated for the information of all the uninitiated. With regard to the payment of medical men in general, I do not think we have so much reason to blame the clubs and the public as we ought to blame those of our professional brethren (?) who do not lose a single opportunity of underselling their *confrères;* and the time appears to me to have more than arrived when some steps will have to be taken by the General Medical Council, or some other professional conclave, to regulate and fix the lowest fee which may be taken for some if not for all services which are rendered by medical men, such as is already the case in the law. If a minimum fee was fixed, this need not necessarily interfere with the maximum. When I tell you, Sirs, that only quite recently I heard of 'physicians and surgeons' who are not professing to be doing a dispensary practice, who certainly do not keep even an open surgery, who are charging 6*d.* for certificates! and who are paying as many as three visits in a day to ordinary private patients for 1*s.*, or at the rate of 4*d.* a visit, I think it will be generally admitted that our profession could not possibly be more degraded or in a more disgraceful manner. And, personally, I may here state that I have far more respect for the man who advertises and declines to take a lower fee than 5*s.* than I have for the man who does not advertise (!) and takes the fee of 4*d.*"

TOUTING BY AGENTS.

WE have received from Dr. T. Frederick Pearse, Hon. Secretary of the Portsmouth Medical Union, the following letter and enclosure:—

"The injury done to many practitioners by the unscrupulous touting and soliciting of the agents of some of the medical aid associations for the supposed benefit of their medical representatives is not sufficiently recognised. The representative himself is 'praised up to the skies,' while every possible opponent is sneered at and 'run down.' A want of confidence in the local members of the medical profession is necessarily engendered in the public mind. These societies have little thought, in the medical attendant's interests, of the pecuniary position of their clients, except that the better they are off the more they are likely to make out of them for insurance business, and they pay the medical man only a percentage of what is collected for medical aid. No examination is required of candidates, and the medical man has very often thrust upon him many chronic invalids. As they can as quickly turn a man out of his appointment as place him into it, the medical officer is completely in their power. Such are the chief objections against these societies. The following (condensed) letter from a local manager of the Liverpool Victoria Friendly Society shows their method of business:—

"'Nov. 22nd.

"'DEAR SIR,—Having heard that you would probably undertake the duties of medical referee to this society and also the National Medical Company, Limited ..... On receipt of your reply will wait and explain

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and complete your appointment, *believing as I do that a fine field lies open for your occupation. Our men would sing your praise from day to day, which means business.* Eighty per cent. of the collections after first six weeks' probation. "'Yours faithfully,

"'H. H. PARKER.'

"Medical aid associations have been defined as 'associations formed as trade speculations carried on by lay proprietors for the purpose of deriving pecuniary profit from the earnings of the members of the profession, and pushed by means of advertisement or by the employment of paid canvassers, how tout and solicit the patients of other practitioners.' Considerable feeling is being aroused against societies of this description, and the Council of the Norfolk and Norwich Medico-Chirurgical Association have unanimously decided that it is unbecoming and unprofessional for any member of the profession to lend his name or to associate himself in any way with such a society. It is to be hoped that all the medical societies throughout the kingdom will take this question up and endorse this expression of opinion. We shall then, perhaps, teach the medical officers to these associations to recognise the injury that accrues to the profession by lending their assistance to such institutions."

Dr. Pearse's letter gives a very good example of the mischief that has been done in the profession by certain so-called medical aid associations in engendering ill-feeling among brethren. How can the most charitable man in the world, the most generous and the most amiable, remain unmoved while he knows that a rival's skill is being persistently puffed to his own detriment, and that the puffery is not an offensive form of honest praise, but a method of advertising a commercial business where the profits come out of the profession and go elsewhere? We have already noted with approbation[1] the action of the Council of the Norfolk and Norwich Medico-Chirurgical Association, and have recommended it to the favourable consideration of similar bodies. We are, therefore, glad to see that at the beginning of the year a resolution was moved at the Nottingham Medico-Chirurgical Society to the effect "That in the opinion of the society it is unprofessional and undignified for any medical man to accept the post of medical officer to so-called medical aid societies promoted by and for the benefit of men outside the medical profession." This was carried, and a committee was selected to consider the practical means for dealing with the subject.

SOME OF THE HOSPITALS IN NORTHERN ITALY.

(BY A HOLIDAY CORRESPONDENT.)

(Continued from p. 1078 of Vol. II., 1895.)

Male Lunatic Asylum in Venice.

FEW visitors to Venice can have passed its picturesque islands without asking what they are now used for and wondering what their past history may have been. Perhaps the island best known to the English is that which used to be a quarantine lazaretto for the plague and now belongs to a rich Order of the Catholic section of the Armenian Church. Here the Fathers are busily at work translating, printing, and disseminating books in all languages and superintending a college of young Armenians in Venice itself. Byron's poems appear in several languages, including, of course, Armenian, for it was in this very monastery that Lord Byron studied the language and liturgy of Armenia. The adjoining island to this is now called San Servolo, and on it since A.D. 1715 the priests of the Order of St. John of God have devoted themselves to the care of 600 madmen, chiefly from the province of Venezia, which pays 5*d.* a day for each of its pauper inmates. The statistics are published every five years, and I was presented with the last report, which consists chiefly of a long treatise by the superintendent on the physiology of the brain and cerebellum and on some proofs of the Darwinian theory. The tables of statistics show that during the last five years 624 admissions took place; 369 inmates went out and 278 died, besides some 600 who began and ended the quinquennial period. Of the 1241 total admissions 291 were due to pellagra, 100 to alcohol, 97 to epilepsy, 167 to simple melancholia, 78 to acute mania, and 150 to chronic mania. The pellagra patients were all peasants, mostly between twenty and sixty years of age, while the bulk of the alcoholics were young bachelor artisans. There were 29 deaths out of 40 cases of general paralysis, but by far the largest number of deaths—72—was from pellagra. The 291 cases of pellagra were all due to poverty, and in 137 cases there was a predisposing family history of pellagra, while in 148 cases the family history was unknown, and in only 6 cases was it certain that there was no question of this disease in the family. While I was waiting for permission to visit the asylum an old priest was trying to relieve a patient—a young gardener—of a troublesome tooth. But the tooth was stubborn and refused to come out after six attempts. Then came a jolly-looking young priest who had a doctor's diploma from Padua, and who showed me all I wanted to see with the greatest courtesy. He began by showing me many pictures and other works of art done by the patients, and then a very valuable collection of photographs, for every patient is photographed on admission and the clinical notes are not considered complete without it. In addition to the medical priests the asylum is visited every day by a lay physician. The priests themselves allow that it is old-fashioned and hardly comes up to modern requirements. There is no padded room and there are no camisoles. Restraint is freely used, chiefly by a leather muff for both hands, and for more serious cases by a waist belt and anklets in addition, which enable a man to be tied in bed by means of light chains. One big man had been tied in his bed in this way for twelve years! The floors are of mosaic cement, and are strewn with sawdust at night to soak up the patients' excreta! The consequence is that all the wards have a urinous odour, and the stagnant summer air reminds one of certain ill-ventilated prisons. The attendants, of whom there are sixty-eight, at my afternoon visit were lying about on forms or beds and were very slovenly dressed. I was shown several of the pellagra patients with erythematous patches on the face, hands, elbows, and feet. All had tongues denuded, or partially so, of epithelium, and non-symmetrical exaggeration of knee reflexes. Some were talking hard all the time, but were not otherwise excited. A few of the patients were of a class who paid for their maintenance, but they were apparently all treated in the same way. The space in the dormitories was 32 cubic metres for each patient. Fresh water is obtained in abundance from artesian wells 200 feet deep, for the salt water surrounding the island is only 20 feet deep. Such of the island as is not occupied by the madhouse is laid out in gardens, vineries, dairies, and poultry yards, in all of which some of the chronic patients work or pretend to work. One of the most interesting patients in the asylum was a blind albino aged twenty-four, a microcephalic idiot 4 ft. 5½ in. in height.

Female Asylum near Venice.

On another of the many islands of Venice called San Clemente the Sisters of St. Vincent and St. Paul from Milan have stationed themselves, and since 1873 have had the care of an average number of 974 lunatics. Besides 30 sisters, there are 108 female attendants between eighteen and twenty-two years of age, all untrained peasant girls unable to read and write. The medical staff consists of a resident superintendent and four visiting physicians from Venice not belonging to any religious Order. My visit was at 10 A.M., and I had hoped to have been allowed to accompany the medical round, but the superintendent declined to show himself and sent word to me by a porter that he and the other practitioners were all busy. After waiting nearly an hour I was allowed to see the wards under the escort of a very unintelligent servant. I mention this because it was the only instance of discourtesy in any Italian hospital or asylum with which I met, the colleagues elsewhere loading me with kindness. However, the sisters at San Clemente were all extremely polite and anxious to show me all they could. Their Order bears a high reputation all over the East for hospital devotion and good management. Unnecessary restraint has been abolished by the present superintendent, who would seem to be quite an enlightened man, but the most troublesome cases are handcuffed with leather and fastened to the bed by the wrists. The latrines were clean and extremely well aired by large windows where the glass has been replaced by wire and

[1] THE LANCET, Dec. 14th, 1895.

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shutters. The ward floors were of mosaic cement, much better kept by some sisters than by others. They are washed every day with water, and every week or so with linseed oil. The kitchen was kept very clean, and, besides several marble tables, contained one stove twenty-six feet by seven feet. The boilers, jugs, and saucepans were all of brightly burnished copper. I saw several patients at work in the kitchen and laundry, besides others who were weaving, sewing, plaiting, and making cotton-lace or the old-fashioned bolster. Altogether there are twenty-three acres on this island farmed by the good sisters.

The Civil Hospital in Venice.

The doorway typical of Renaissance reliefs in perspective, including two lions and the achievements of St. Mark, dates from A.D. 1485, and its rich façade is well known to tourists. Since 1815 the building has been used as a hospital, and at the first visit its size rather overpowers one. I found there were 1600 beds, but only 1100 were actually in use. The largest ward is the old Chapel of St. Mark, and has a magnificent ceiling. The altar pictures and accessories still remain on a raised daïs at the east end, and four rows of beds are ranged lengthwise down the ward, and are under the charge of two physicians. I noticed three cases of enteric fever in this ward, in spite of the good water-supply of Venice; but this is not to be wondered at, for the Venetians still make use of the wells in the middle of their court-yards. Enteric fever is said to be rare among tourists, and my hotel proprietor, a German, told me that during the last twenty years no death from this disease had taken place in his hotel, though many cases had been cured there. The hospital staff numbers sixty, but there is no medical school in Venice, and therefore no students. The wards have marble floors and are not too well ventilated, in spite of their height. The latrines are primitive. Lunatics are kept here under observation only, and are then despatched to the two asylums before described. Several patients, however, in the wards devoted to nervous diseases were tied in bed and were wearing camisoles and leather hand-muffs. The physician's assistant explained to me that this was to prevent their getting out of bed or otherwise misbehaving. It is into this section that pellagra patients are admitted, and I was shown several middle-aged women suffering from this disease, two of whom were tied in bed because they were said to be excited occasionally.

Pellagra Houses at Mogliano.

The efforts of Professor Lombroso and others to arouse public attention to the evils of pellagra, which is sapping the lives of the peasants in the north of Italy, have during the last few years borne some fruit. One hour's journey by train from Venice is a farmhouse standing on thirty acres of land, the property of a benevolent society which has several aims—the cure of incipient and advanced pellagra, free milk-supply for the children of pellagrous patients, diffusion of apparatus for drying maize, ovens for bread and soup kitchens, and making a general propaganda against pellagra and the use of diseased maize. The society was formed in 1882 and has constructed suitable barracks adjoining the farm for 225 in-patients—viz., 60 sane, 130 insane, and 35 aged, all suffering from pellagra and of both sexes. Since its formation some 1500 patients have been treated, with this percentage of results: cured, 44; relieved, 40; not relieved, 5; worse, 7; incurably mad, 2; and dead, 2. Practically all the patients have come from the two provinces near Venice, which pay towards their keep 10*d.* per day for each mad patient and 5*d.* for the sane. The nursing and housekeeping are done by sisters from Vicenza, and there is an energetic young medical superintendent (Dr. E. Locatelli) in a neighbouring house who takes an enthusiastic interest in his work. The number of cases which relapse after apparent cure vary from 15 to 20 per cent. The greatest number of admissions is in March and April, when the erythema peculiar to pellagra is also best seen. The general treatment is fresh air, ablutions, a diet of milk, bread, eggs, cheese, vegetables, salt, and once a day a ration of meat and red wine. On this diet favourable cases increase in weight, 11 lb. on an average. Maize even when good is thought to be hurtful to pellagra patients. For diarrhœa, bismuth, tannic acid, and sometimes opium, and for insomnia all sedatives were employed on occasion, and the medical man told me he had special faith in faradaic electricity and massage, with arsenic, iron, or quinine. Old patients are said to require strychnine, digitalis, or caffeine in addition. Some of the peasants object to drinking milk, thinking it gives them diarrhœa, but they are encouraged to persevere till they get used to it. In the insane wards I saw some men in bed in single rooms, belted and tied hand and foot. The medical man thought it too hot during the summer to employ camisoles or other restraint, and explained that all these men had attempted to commit suicide or homicide, or both. One man was in bed dying from pellagrous diarrhœa with abolition of the knee reflex. Three patients with spastic paraplegia were said to be improving very fast, and a fourth who was walking about fairly well was said to have been paraplegic three months before. Both sane and insane had old erythematous patches with glossy atrophy of the skin on the face, nose, hands, and feet, and all had unnaturally clean tongues, and a history of diarrhœa, giddiness, backache, and cramps. Nearly all had considerable exaggeration of the knee reflex. The medical man showed me several boys, aged about twelve, the victims of hereditary pellagra. I could not, however, discover that there were any special characteristics of the hereditary tendency to the poison. Some of their heads and faces were rachitic and others syphilitic. One baby, a year old, was at the breast of a pellagrous mother who looked healthy enough otherwise. Her child had no teeth and the fontanelles were gaping wide. Perhaps the hereditary tendency to pellagra about which all Italian experts write is analogous to that which some alcoholic parents transmit to their offspring? Dr. Locatelli showed me in his office two maps of Italy which point out in a very striking way the precisely similar distribution in that country of *zea mays* (maize, Indian corn, or *gran turco*) as a food and pellagra as a disease. In the south maize is not grown and pellagra is unknown.

Ospedale Maggiore in Milan.

This is a vast brick building, half Gothic and half Renaissance in style, begun in 1457 and containing no fewer than nine courts. The central court, and of course the principal one, is eighty yards by twenty yards, and dates from the seventeenth century. The whole outside of the hospital is covered with terra-cotta, with rich window mouldings, and in the chapel are portraits of the Sforzas, the founders of the charity. This must be one of the largest hospitals in the world, for there are 3000 beds, and at my visits there were over 2000 in-patients. The staff consists of 150 medical men, and there are 100 sisters of St. Vincent and St. Paul to control the nursing. The ventilation of the wards is decidedly bad, as probably too much confidence is placed in their great height, some being thirty-three feet high. In these enormous buildings provision can be made for many sections and sub-sections. For instance, I saw five wards for incurable disease, and another ward with eleven beds which I was told was especially for gangrene; but on examining the bed tickets I found only four had gangrene, and the others had various forms of cancer. A little later I was shown two small wards divided by a gynæcological theatre, and I was told by the sister in charge that these fifteen beds were reserved for puerperal fever, but on investigation I found that this was a rare accident, and that the beds were usually filled by other sufferers in the lying-in period. However, it makes one shudder to think that in this crowded building spaces had to be devoted in times past for both gangrene and septicæmia. The surgical dressing-rooms and theatres differ very much, as the surgeons themselves are going through different periods of antiseptic evolution. One dressing-room had a tiled floor and marble cemented dado six feet high; another, like the wards, had wooden ceiling, whitewashed walls, and dirty rough tiles as flooring. But the operating-theatre near the two wards for children was of a newer order, with tiled floor, cemented walls, glass tables and cupboards, painted iron operating-table, wash-stands carefully syphon-trapped, and a stove for boiling instruments. Hanging to a window was the hose for washing down the walls, and the water escaped under the door directly into the garden without the use of any drain. It was rather painful after that to see the theatre for women, including ovariotomy, &c. Wooden cupboards and every horror of the old days, with a cemented floor full of cracks and an untrapped grating communicating directly with one of the hospital drains which runs into a neighbouring canal. Altogether I saw eight theatres, but I did not succeed in seeing the largest operating-theatre, because it was being used for examination purposes. It is said, however, to be constructed on a modern system. In one

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of the courtyards patients were busy washing the iron beds, which is done twice a year. The kitchen contained one enormous stove, and all utensils were of copper, but these were very dirty in spite of the presence of four sisters and four cooks. As I passed through the male insane wards with Dr. Brera I noticed that any excitable patients were kept in leather muffs until they became so troublesome that they had to be despatched to the county lunatic asylum. The special treatment of pellagra in this hospital is by means of salt baths, and one of the courtyards is set apart for a bath to which out-patients come in great numbers. The majority of those practitioners who have devoted attention to pellagra have, however, very little faith in this being any material aid towards the cure.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Medical Society.

THE annual meeting was held on the 8th inst., Mr. F. A. Southam, the retiring president, being in the chair. At the last annual meeting many changes in the laws were adopted, the most noteworthy being the institution of a uniform yearly subscription of one guinea, instead of two guineas for town and one for country members. During the year seventy-nine new members were elected, against thirty-eight in 1894. Eight had resigned and two had died. This year begins with 349 members, as compared with 280 at the end of 1894. The library now contains 31,648 volumes, in addition to a large number of pamphlets, 258 volumes having been added during the year. Dr. Glascott, the treasurer, was in the happy position of stating that the society had a balance at the bank of £79 19*s.* 8*d.*, showing a net profit of £29. Dr. Ashby was appointed president. A movement has arisen in favour of providing a central medical hall, where the various societies can hold their meetings and professional gatherings can take place. The Medical Society, with its extensive library, and the Pathological Society have for many years been indebted for hospitality to the Owens College, but the rest have to engage rooms at one or other of the hotels, and this inconvenience is shared by various scientific and literary bodies. A committee has been formed to further this project, and in answer to the request that two members should be nominated to represent the Medical Society officially, the president and honorary secretary have consented to serve. The undertaking is an arduous one and will require all that combined effort can do to make it a success.

The Sale of Poisons.

A letter appeared in the Manchester papers the other day from a druggist in Bury, in which he complains of "the distorted notions that coroners have of the duties of chemists." It was called forth by the report of an inquest at Preston on the body of a man who had taken four-pennyworth of laudanum. He sent his son, a boy aged nine, four separate times on a Saturday night to the same shop for a pennyworth of laudanum. The druggist served him once and his assistant three times. It was given in an open glass to this child of nine to carry to his father. The druggist said he took the precaution to label the glass "poison," and told the boy to be careful, that it was poison, "and I thought that was sufficient." The jury brought in a verdict of "Death by Misadventure," although in her evidence the widow said "she had never known her husband to be in the habit of taking opiates, but he had threatened to do away with himself." The druggist was told by the coroner that "the jury were unanimously of opinion that he ought not to supply laudanum in an open glass, especially to young children," and the coroner added that it was most reprehensible. With this most people will agree; but the Bury druggist is very angry, and says "chemists as a body take more care than the State demands," and blames the coroner for his observations and for not discussing the question with the druggist. "The law," he says, "does not say that poisons shall not be served to children or in glasses," and if it is wrong complaint should lie at the door of Parliament. The opinions of an individual druggist may not be of great moment, except as indications of a widespread feeling. No doubt the majority do take every care in the sale of poisons, and, if need be, go beyond the strict requirements of the law and make use of some common sense. The purchase of a poison should always lead to caution on the part of the seller, and it is a preposterous thing that anyone should seem to defend the selling of four distinct quantities of laudanum to a child aged nine. The writer of the letter says, what is probably true, that "carbolic acid causes more deaths than any other poison." It can be purchased in any sort of vessel, in any quantity, and from anyone who chooses to sell it, "without label and without warning," but he does not remember anyone being censured, though if it were scheduled "some unlucky chemist would draw down the wrath of some coroner." It is to be hoped that the absence of all sense of moral responsibility shown by the writer, who has the courage or absence of feeling to sign his name, which, however, it is a charity not to make more public, does not characterise very many of his fellow tradesmen. He seems to think there is ill-feeling towards druggists, and hopes medical men are not the cause of it. If his views are widely held the feeling he deprecates may come to exist, but will not be confined to our profession.

Habitual Drunkenness: the Festive Season.

Another illustration of our inability to deal effectually with these wretched cases was exhibited the other day at the Salford Police-court, where a woman made her 154th appearance charged with being drunk and disorderly. There was, however, nothing dejected or miserable in her bearing, for "she stepped jauntily into the dock with a polite curtsey, and wished Mr. Makinson 'A happy New Year to your worship.'" She was sent to gaol for a month—an utterly useless proceeding. On the morning after New Year's Day there was an unusually long list of "drunk and disorderly" cases at the Manchester police-courts. Two courts were held, in one of which eighty cases were heard, and in nearly all the same story was told—New Year's Day—too much drink—taken to the police-station. It is not much to be wondered at that Mr. Smelt, the deputy city coroner, recently stated that the business of his court increased 50 per cent. during Christmas and New Year's weeks. All this indicates an unsatisfactory mode of celebrating the birth of Christ and the beginning of a new year.

Cruelty to Children.

Scarcely a day passes without the eye catching one or more paragraphs with the above heading as one glances over the daily papers. Whether affection for children is becoming less as we advance in civilisation, or that cases of cruelty are more looked after and more frequently detected than of old—which does not seem quite consistent with the former supposition—facts show that much suffering is inflicted which is a disgrace to our species. During December last the Manchester Branch of the National Society for the Prevention of Cruelty to Children investigated sixty-six cases of cruelty. Six persons were prosecuted and convicted, and thirty-nine warning notices were served. In nine cases the decisions are pending, and the remainder were otherwise dealt with. These cases affected the welfare of 143 children, 56 of whom were insured for £269.

Salford Sewage Again.

The scheme of the Corporation was brought before Judge Parry at the Manchester County-court on Friday last, and approved by him. The matter is to be brought before him again in three months that progress may be reported. The Corporation will apply to the Local Government Board for borrowing powers for £40,000. In the meantime there is great difference of opinion as to the extent of the filtration area required. At the last meeting of the Council Dr. Quine moved an amendment to the effect that the area should be increased to 33,000 square yards, and added that £60,000 should be borrowed. Alderman Walmsley, the chairman of the committee dealing with the matter, who formally moved the adoption of the scheme, as it was necessary to appear before Judge Parry with a scheme which, however, could be amended afterwards, said that according to the calculation of the chemist of the London County Council they would want 60,000 square yards. Mr. Corbett, the engineer, considers 20,640 square yards sufficient; a resolution was adopted giving discretionary power to increase it by 4000 square yards. Dr. Quine's amendment, which was lost, would have given 33,000 square yards. Alderman Walmsley, backed by the London County Council expert, would have 60,000. It will be interesting to see how the plan adopted works out in actual practice if the time-honoured good intentions of Salford are eventually carried out.

Jan. 14th.

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SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Royal Medical Society, Edinburgh.

DR. CLOUSTON'S address to the Royal Medical Society, which had been postponed owing to his illness, was delivered on Friday of last week. Taking as his subject the Mental and Nervous Element in Disease, Dr. Clouston emphasised the importance to students and practitioners of getting hold of the general principles that underlie and explained the facts they had learned in their student days. He wished to impress on his audience that night the principle that, in the consideration and treatment of almost all diseases and injuries, the influences travelling to and from the brain cortex must be taken into account. In illustrating these influences he reminded his audience how it often happened that through an injury to a limb the action of the brain was disturbed, and, on the other hand, how the brain disturbance might so influence the nutrition of the body as to retard the process of repair in the injured limb. Every disease, injury, and disordered function was influenced one way or the other by the action of the brain, and it was not so much the striking examples of this that they were to keep in mind as the constant way in which every disorder was thus influenced—seen, for example, in the effect a merry heart and cheerful impressions have in hastening and helping forward a favourable termination to any disease. Dr. Clouston referred to Professor Laycock as having been one of the first to point out the influence of the brain in disease and placed him in the front rank of those who had done work in this direction. He went on to show the importance in disease of physiognomonical diagnosis or the study of outward appearances, these appearances being reflexly produced through the brain cortex. He mentioned influenza as a fever in which the brain cells were primarily attacked, and pointed out the necessity of reference to the nervous relationships for the proper treatment of the disease. Dr. Clouston then drew the attention of his audience to the lowered condition of the brain in the night as compared with the day. Fevers, pain, and mental disorders were aggravated at night, and it was at night that death usually occurred. Lastly, he remarked on the discovery by modern physiologists of the actual apparatus in the cortex by which the brain could be acted on from every part of the body and could itself act on every organ and every other part.

Edinburgh and Leith Hospital Question.

The decision of the Leith Dean of Guild Court against the erection of a hospital at Quarryholes, which has been frequently referred to in these columns, has been before the judges in the Court of Session. They have reversed the decision of the Dean of Guild Court, and find Leith liable in expenses.

Glasgow Medical Societies.

At the meeting of the Medico-Chirurgical Society, on the 10th inst., Dr. W. L. Reid showed a large Uric Acid Calculus which he had removed by vaginal cystotomy; the size of the stone was so considerable that it had been necessary to split the perineum in order to extract it. Dr. James A. Adams reported a number of cases upon which he had performed the operation of Shortening the Uterine Round Ligaments for Retroflexion or Prolapse of the Uterus; the results had been uniformly good. Dr. Lawrence Oliphant submitted an extensive Slough of the Bladder-wall which had been discharged after a protracted labour; microscopic examination showed that in places the exfoliated tissue extended to the peritoneal coat; the patient had made a good recovery and regained considerable control over the function of the bladder. Dr. T. K. Monro showed a Liver with a rudimentary left lobe; and Dr. Bell Todd a photograph of a case of Ectopy of the Liver, Omentum, and Bladder taken from a child, who survived fifteen days. At the Pathological and Clinical Society, on the 13th inst., Dr. Knox read notes of a case of Actinomycosis of the Face and Neck, and showed photographs of the patient, together with specimens of the fungus and tissues involved. In spite of very free repeated scraping of the diseased area and thorough trial of the iodine treatment the patient died nine months after the original swelling had appeared on the mucous surface of the cheek. Dr. Finlayson showed a cretin who had for two years been treated by thyroid extract, with marked improvement both in the physical and mental condition. Dr. Alex. Robertson submitted two cases—(1) a patient with Disease of the Floor of the Fourth Ventricle; and (2) a case of Workman's Neuritis.

Glasgow Infirmaries.

The directors are able to announce a donation of £3500 by an anonymous donor towards the erection of the new surgical theatres. This is the third sum of like amount which has been presented to the infirmary within the past month, so that the directors are in a position to meet the contemplated expenditure and to proceed with the erection of the three new theatres recommended by the staff. A pathetic accident has recently occurred at the Royal Infirmary, one of the nurses taking a quantity of carbolic acid in mistake for syrup of lemon; she died of shock in the course of about twenty minutes.

Glasgow Philosophical Society.

At a meeting of this society on the 8th inst. Professor W. Ramsay delivered a lecture on Argon and Helion. Professor Ramsay is well known in professional circles at Glasgow, having at one time been assistant to the professor of chemistry in the university. For this and other reasons his lecture attracted many representatives of the profession. The chair was taken by the newly-elected President, Dr. Ebenezer Duncan.

Glasgow University.

Dr. Maitland Ramsay has been reappointed Lecturer on Diseases of the Eye at Queen Margaret College.

Jan. 14th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Water-supply of Belfast.

THE several reservoirs available for the supply of water to the city of Belfast are at present all well filled, there being a larger supply than at the corresponding period of last year. At the end of the year 1894 the average daily consumption of water was nine and three-quarter million gallons, while the present-day consumption is nine and a quarter million gallons, which shows a reduction in favour of the present rate of consumption of nearly 500,000 gallons per day, and this is including the new supplies of water for all purposes during the past year. With the total water at present in store, and at the present rate of consumption, there are 237 days' supply now available The storage supply at Lough Morne and at Stoneyford is increased. The number of houses supplied with water greatly exceeds the number supplied in former years.

County Monaghan Infirmary.

It is understood that the net balance from the recent bazaar for the new infirmary is £1591 18*s*. The work at the new building is making substantial progress.

Death of Mr. Robert H. Newett, L.R.C.P. & S. Edin.

One of the most highly respected medical practitioners in the neighbourhood of Belfast has just passed away in the person of Mr. Newett of Ligoniel. He obtained the licence of the Edinburgh College of Physicians in 1867, while he had qualified in the College of Surgeons of the same city in 1862. He then obtained a dispensary appointment in county Mayo, but, after holding it for twelve months, he was elected house surgeon in the Fever Hospital of the Belfast Workhouse. He held this post for a few years and then became house surgeon in the Royal Hospital, an office he filled for a considerable time, until, in 1868, he was appointed dispensary medical officer at Ligoniel, a position which he continued to occupy until the time of his death. For a long time he had been in poor health, and died on Jan. 9th. Mr. Newett was a man of the most sterling uprightness and honourable character. With a sound knowledge of his profession, most conscientious in the discharge of his duties, and sympathetic in his manner, he was a very great favourite in the district in which he resided. He was buried on Jan. 13th.

Drum Dispensary District.

Mr. Swann, who for the past ten years has been dispensary practitioner at Newtownhamilton, was on Jan. 6th elected, by a majority of two votes, medical officer of the Drum dispensary district of the Cootehill Union.

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Coleraine Cottage Hospital.

At the annual meeting of the supporters of this excellent charity, held on Jan. 13th, it appears, from the report presented, that 71 cases (36 medical and 35 surgical) had been admitted, and that 12 operations (all successful) had been performed. There had been only three deaths. The treasurer's statement showed that the expenditure had exceeded the income by £37.

Enteric Fever in Dublin Barracks.

Considerable uneasiness exists in Dublin on account of the persistent rumours as to the prevalence of enteric fever in the military barracks of the city and the neighbourhood. The policy of reticence adopted by the military authorities and their refusal to permit independent sanitary investigation have produced an unfavourable impression in the public mind. Island-bridge and Richmond Barracks are said to have suffered most.

Jan. 14th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

What is Chlorosis?

IN a suggestive article appearing in the *Gazette Hebdomadaire* (Jan. 2nd) M. Charrin gives as the cause of that peculiar condition, chlorosis, menstrual auto-intoxication. It is known that on the eve of the menstrual flow the serum-toxicity is increased. Wet-nurses who continue to menstruate are the cause of these menstrual periods of diarrhœa and divers eruptions in their sucklings, whilst they themselves are, at these times, particularly prone to suffer from fever, herpes, headache, and muscular pains. Directly the flow is established these disorders cease. Experimental researches conducted by M. Carnot (a son of the late regretted President Carnot) and M. Charrin tend to show that the auto-intoxication theory is the correct one. The purifying influence of the menstrual flow is an old idea, but its connexion with chlorosis had, so far as I know, not been hitherto suggested. Imperfect cell development, due to hereditary scrofula, &c., makes itself felt in the genital system, and the increased metabolism coincident with puberty throws a greater strain on this system, the eliminatory insufficiency of which is then demonstrated by the condition which we denominate chlorosis. Abnormal narrowness of arteries, such as the mesenteric and pulmonary conduce still further to the retention of noxious materials in the blood. But, after all, only direct experimentation with menstrual blood can settle the question, and it is, therefore, to be hoped that MM. Charrin and Carnot will pursue their researches in this direction and publish the results.

Theobromine as a Diuretic in Cardiac and Renal Diseases.

For the last two years M. Huchard[1] has made extensive use of theobromine as a diuretic in the above-named diseases, and he has come to the conclusion that it is, as a diuretic, superior to digitalis and caffeine. Its prolonged administration involves no inconvenience, provided that the daily dose does not exceed 5 grammes, and more especially if this quantity be given in fractional doses of 50 centigrammes. Exceptionally it may, however, even in smaller doses, cause severe headache. Nausea and vomiting are rare, as is also cerebral excitement. Once only did the exhibition of the drug cause albuminuria, and in three instances only was previously existing albuminuria increased by it. In these latter cases the increased albuminuria coincided with rapid disappearance of the œdema. M. Huchard prescribes the theobromine after the following plan: 1st day, 3 grammes in fractional doses of 50 centigrammes (in cachets); 2nd day, 4 grammes in eight cachets; and 3rd day, 5 grammes in ten cachets. This latter dose is continued for three or four days. In certain cardiac diseases he prolongs the diuretic action by the administration (consecutively) of half or one milligramme of digitalin given in one day. Theobromine is a direct diuretic, its action being to induce a heightened activity of the renal epithelium. Its employment is particularly indicated in arterial cardiopathies, in those complicated with renal lesions, in hyposystole (heart failure), and in interstitial nephritis. The simultaneous exhibition of digitalis, caffeine, or lactose does not increase its diuretic action. Theobromine diuresis is not prolonged after three or four days after the last dose given. The drug is not cumulative or toxic; it succeeds often when digitalin or caffeine have failed; and it has apparently been of use in typhoid fever and pneumonia, where a free secretion of urine is of importance.

[1] Société Thérapeutique, Jan. 8th.

The Country Practitioner in France.

The President of the French Chamber of Deputies, when announcing the loss that assembly had sustained by the death of Dr. Ernest Leroy, deputy for the Somme, took advantage of the occasion to pay a graceful and well-merited compliment to the members of the medical fraternity who exercise their profession in the provinces. The following translation of M. Brisson's eulogy will doubtless be of interest to all British practitioners, whether urban or provincial, albeit they themselves are not overburdened with similar laudation: "Our excellent colleague belonged to that portion of the medical corps whose duty lies in our rural districts, and whose devotion and disinterestedness are everywhere far above all praise. Obliged to minister promptly to the requirements of the most complicated cases, constrained to be at all times everything to everybody, these modest doctors amass treasures of experience, and unfold stores of goodness, which suffice to stamp the country practitioner as a type of all that is most elevated and interesting in human nature. They one and all are in constant contact with extremes of misery and suffering whereof we know little or nothing."

Jan. 14th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Photography through Opaque Screens.

COMMUNICATIONS made last week to the Verein für Innere Medicin and the Physical Society have caused an extraordinary sensation, not only throughout the medical profession, but also in every department of the scientific world. Professor Roentgen of Würzburg, in Bavaria, has discovered that the beams of light produced by passing an electric current through a vacuum tube are able to penetrate media which are opaque to ordinary light, and he has in this way succeeded in photographing objects which were covered by various opaque solids, such as a wooden board, or a closed book containing a thousand pages. Metal and some other substances proved to be less transparent to these rays than wood and paper are, but no screen was found to be totally impermeable to the light of a vacuum tube, so that it is now possible, for instance, to photograph the bones of a living person's hand through the surrounding soft tissues, and photographs of this kind were shown at the meetings of the above societies. Professor Roentgen has in this way obtained photographs even when the box containing the photographic glass plate was closed. It is the general opinion that the new discovery will produce quite a revolution in the present methods of examining the interior of the human body.

The Medical Directory.

Börner's Medical Directory for 1896, edited by Dr. Schwalbe, shows that there are now 23,099 medical men in Germany, the numbers having been 22,287 in 1894, 19,630 in 1891, and 16,864 in 1887. Since last year the numerical increase has therefore been 812, or 3·6 per cent., and during the last eight years the increase has been 6235, or 37 per cent., whereas the increment of the general population has been only 12 per cent. in the same space of time. There are 13,778 medical men in Prussia, 2559 in Bavaria, 784 in Würtemberg, 1711 in Saxony, 862 in Baden, and 661 in Alsace-Lorraine, the remainder being in the smaller States of the Confederation. The directory states that there are 1978 medical men at present in Berlin, but this number does not include the practitioners in the suburbs of the city. The increase of the medical profession in Berlin exceeds its average increase throughout the empire, for the number has risen by not less than 580 practitioners (= 41 per cent.) since 1889, whereas the addition to the population of the city is only 9 per cent. Munich has 435 medical men, Breslau 355, Leipzig 337, Hamburg 460, Frankfort 233, and Strassburg 220. There is now an average of 4·55 medical men for every 10,000 inhabitants, but in Berlin the proportion is as high as 12·59. There are 1071 registered dentists and 5144 pharmacies. The Medical Practitioners' Association

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has 249 branches, with 14,270 members; there are 96 scientific societies, 15 societies for the discussion of questions relating to public health, and 13 societies of army medical officers. The 20 medical faculties have 263 teachers and 8361 students. The largest numbers of medical students are in Berlin, Munich, Leipzig, and Würzburg. The overcrowding of the profession and the extension of the club system have had the effect of making medical practice much less lucrative than formerly.

Laparotomy in Tuberculous Peritonitis.

Professor Israel has contributed to the *Deutsche Medicinische Wochenschrift* a paper on Some Cases of Tuberculous Peritonitis cured by Simple Laparotomy, and expresses the opinion that as our knowledge of the conditions of healing under these circumstances is very limited it is desirable that every new observation should be published. Laparotomy for this disease has seldom to be performed in childhood, but of Professor Israel's cases three were those of children who were operated on at a somewhat early stage. The local affection was very extensive, and all the patients were feverish, but the ascites was very slight. The laparotomy was performed in the usual way; after the opening of the abdominal cavity a quantity of iodoform oil was thrown into it. The time elapsed since recovery has been, for the three cases, fourteen, sixteen, and seven months respectively. The first patient was a boy four years of age, in whom the tuberculous peritonitis had taken origin from a tuberculous ulcer in the colon; the intestines were partially matted together, and the omentum was rolled up like a curtain. A fistula which appeared a fortnight after the operation healed under the application of tincture of iodine. In the second case the disease progressed rapidly, with high fever and severe abdominal pain, and on opening the abdomen the mesentery and the peritoneum were found to be covered with tumours of the size of a cherry-stone. After the operation the temperature became nearly normal, but the boy did not improve, and there was a recurrence of diarrhœa together with enlargement of the abdomen, so that thirty-six days after the first operation a second laparotomy was performed and Professor Israel was greatly surprised to see that all the tumours had disappeared. The boy thereupon quickly recovered and increased in weight considerably. In the third case, also, the child recovered quickly, although he suffered from pleurisy and tuberculous infiltration of the right apex. Professor Israel concludes (1) that the disappearance of tuberculous peritonitis cannot be explained by the removal of the ascites, as in these three successful cases there was hardly any ascites; (2) that laparotomy may be followed by recovery even when the peritonitis is combined with intestinal ulceration; (3) that tuberculous tumours of the size of a cherry-stone may disappear within thirty-six days; and (4) that hectic fever does not contraindicate the operation, as some French surgeons suppose. The fourth case was that of a young woman aged twenty years, who had suffered from abdominal pains since her thirteenth year. Symptoms of ileus had appeared, and a tumour could be felt in the right side of the abdomen. A surgeon performed laparotomy and found at the cæcum a tumour of the size of an apple with swelling of the mesenteric glands and matting of the intestines. Believing the disease to be carcinoma, he closed the abdominal wound without removing the tumour, and the ileus disappeared, but the patient remained very weak. A year afterwards Professor Israel was consulted, and, being of opinion that the case was not one of carcinoma, he performed a second laparotomy and found the peritoneum to be covered with tubercles. The tumour grew from the posterior wall of the colon and partly closed its lumen. To avoid ileus he made an anastomosis between the ileum and the colon, but abstained from extirpation. Since the operation the patient has regained good health; but what makes the case especially interesting is the fact that the tumour, which was undoubtedly of tuberculous nature, became smaller and smaller, until at present it is only the size of a walnut.

Jan. 14th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

The War in Abyssinia.

CONCURRENTLY with the despatch of reinforcements to the seat of war the Army Medical Department is proportionally represented. The Croce Rossa Italiana, which has now four stations in the Colonia Eritrea (to say nothing of the infirmaries in connexion with it at the various garrison towns), forms an effective auxiliary to that department, differing as it does, in a military sense, from the Red Cross Society elsewhere. The Geneva Convention is not recognised in the colony, so that all the *personnel* at the four stations referred to—the strictly professional staff as well as the lay assistants—are provided with firearms, the medical officers with revolvers, and their servants with Wetterly rifles. Any day we may now read of the active intervention of the Red Cross, the encounters on the 7th inst. between the Shoan skirmishers and the Italian outposts at Makallé being but the prelude to an engagement which must become general. The present disposition of the service is as follows. On the Asmara heights Dr. G. Del Prete, medical head of the Red Cross in the "Eritrea," directs the "ospedaletto da montagna" (mountain hospital), having under him Dr. De Ferrari (pharmacist) and the Cavaliere G. Badini (commissary), with the relative *personnel*. At Adi Ugri Dr. Muzzioli presides over the garrison infirmary and the "posto di medicazione" in connexion with it. At Saganriti Dr. Goffredo Spinelli conducts another hospital of the kind, replacing the army medical officer now on duty in the field. At Adigrat there is a fourth station—the "ambulanza di montagna," fully equipped and with the necessary *personnel* under Dr. Giuseppe Quattrociocchi. The other two ambulances (Nos. 2 and 3) will be told off to positions selected by General Baratieri, whose experience of the Red Cross service in Abyssinia has been so favourable as quite to explain the active countenance it receives from the War Office. At Massowah it commands rich stores of *matériel*, entrusted to the Marquess Oreglia di Santo Stefano, who represents the central committee of the Red Cross in the "Eritrea." Meanwhile contributions of money, medicines, and comforts are pouring in, not from Italy only, but from the Italian settlements in South America—notably Buenos Ayres and Santa Fé.

Sero-therapy at Naples.

The Neapolitan school was one of the first in Italy to recognise the new weapon afforded in practice by sero-therapy, but till now had taken no steps to provide itself with an establishment for the supply of the serum. The defect is already in course of being made good, a committee, with the Senator Spinelli for president, having raised funds to take over the Istituto Vaccinogeno and adapt it for the purpose desiderated. A better building and site could not have been devised.

Professor Gaetano Mazzoni.

King Humbert has, *proprio motu*, conferred on Dr. Gaetano Mazzoni, Professor of Clinical Surgery and Lecturer on Special Pathology in our university, the badge of Cavaliere of SS. Maurizio e Lazzaro in recognition of His Majesty's appreciation of his recent work entitled "Neutralità dei Feriti in Guerra" ("Neutrality of the Wounded in War").

Jan. 11th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Cholera.

DURING the last fortnight there have been in all Egypt 15 new cases admitted as in-patients to, and 14 deaths reported outside, the hospitals, besides 12 deaths in hospitals. There are thus still about two cases every day, and they come now from three villages quite in the interior. But there have also been two cases at Alexandria, the first of which was fatal, and the second is now said to be convalescing after being treated with some of Behring's anti-cholera serum. Cholera continues to be absent from the villages where it broke out in October and November, but the same sanitary precautions are still being taken, and Dr. Rogers Pasha is himself inspecting the suspicious haunts in Lower Egypt.

Small-pox.

The existence of variola excites no comment, but as a matter of fact there are 73 cases now being treated, as compared to 20 cases of cholera. The disease is nearly confined to four of the six provinces of Lower Egypt, but altogether there are cases reported from twenty-one villages. "Fièvre typhique," by which is meant probably typhus or

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relapsing fever, is reported from five villages, but there are only 24 cases in all.

The Tourist Season.

Some of the hotels are fuller than they have ever been before, but two or three of them are less gay than last January. During December nearly 1300 European visitors reached Cairo, being slightly in excess of the number which arrived in December, 1894.

Cairo, Jan. 8th.

Obituary.

JAMES DIXON, F.R.C.S.

MANY of the senior members of the profession will hear with regret of the decease of Mr. Dixon, who many years ago held a distinguished position among London ophthalmic surgeons. He studied medicine at St. Thomas's Hospital and received his qualification as M.R.C.S. in 1836. In course of time he became assistant surgeon to St. Thomas's, devoted himself specially to ophthalmic surgery, in which he attained an extensive practice, and was for a long time consulting surgeon to the Royal London Ophthalmic Hospital. The third edition of his Guide to the Practical Study of Diseases of the Eye appeared in 1866. In 1870 domestic bereavement induced him to resign his practice, and to live in retirement at Dorking. The study of English literature and history was thenceforward his chief pursuit, and he died at his residence Harrowlands, Dorking, in his eighty-second year. He became a Fellow of the Royal College of Surgeons of England in 1843. Mr. Dixon contributed an article on Diseases of the Eye to Holmes's System of Surgery.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated:—

On Monday, Jan. 13th:

Anatomy and Physiology.—Albert Ernest Hamerton, John Blake Hall, and Cuthbert George Catterall, students, Yorkshire College, Leeds; James Ainscow, Owens College, Manchester; Harold George Webster and Thomas Danily Paddock, University College, Liverpool; Ralph Evelyn Drake-Brockman, St. George's Hospital; William James Lord, University College, Bristol; Arthur John Stanley and George Valentine Smallwood, Mason College, Birmingham; Arthur Ricketts, University College, London; Percy Foster, Charing-cross Hospital; Vincent Thomas Clare Bent, Guy's Hospital; and Joseph Marcus Garman, London Hospital.

Anatomy only.—Herbert Lancaster Laidman, Owens College, Manchester; Vernon Kent Blackburn, Firth College, Sheffield; William Hodgson Park, Charing Cross Hospital; and Guy Berners Nicholson, St. Bartholomew's Hospital.

Physiology only.—Edgar Whalley, Yorkshire College, Leeds; Edwin Garrett Bunbury, University College, Bristol; Henry Spinks, Owens College, Manchester; Edward Smyth Crispin, King's College, London; John Edmund Francis and John William Cheese, University College, London; Robert Stanley Ransome, St. Thomas's Hospital; and Geoffrey Stuart Moore, London Hospital.

Fifteen gentlemen were referred in both subjects, 6 in Anatomy only, and 2 in Physiology only.

On Tuesday, Jan. 14th:

Anatomy and Physiology.—Edward Alban Evans, Ernest Archibald Longhurst, Edward Reginald Row, and Lawrence Humphrey, Guy's Hospital; John Frederick Walker, Edward Young, and David Jones Thomas, London Hospital; William Evans, Otago University and London Hospital; Herbert Ewan Waller and Aleck Lauriston Scott, St. Bartholomew's Hospital; William Ferris, George Patrick Thomson Groube, and Charles Henry Straton, St. Mary's Hospital; Richard Le Geyte Worsley, St. George's Hospital; Arthur Cheney, Melbourne University and King's College, London; Ernest Castleigh Bailey, King's College, London; John Kitton Howlett, Cambridge University; and Alfred Campbell, Sydney and Edinburgh Universities.

Anatomy only.—Benjamin Isaac, Guy's Hospital; John Herbert Yearsly, St. Thomas's Hospital; William Walton Claridge, Middlesex Hospital; and Walter Green, Charing-cross Hospital.

Physiology only.—William Ernest Nelson, Cambridge University and St. Thomas's Hospital; Arthur James Bowman Adams, St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; Austin William Powell and George Mintur Brown, Guy's Hospital; and William Moore Bell Sparks, King's College Hospital.

Ten gentlemen were referred in both subjects, 6 in Anatomy only, and 2 in Physiology only.

The following gentlemen passed the Second Examination of the Board in the subjects indicated on Wednesday, Jan. 14th:—

Anatomy and Physiology.—George Herbert Spencer, John Davies, Kenneth Harrington Douglas, and Sidney Gaster, London Hospital; Charles Seymour Strickland Dunlop, University College, London; Edward Percy Hughes Dudley, Hubert Peché Lobb, and John Elliot Robinson, St. Bartholomew's Hospital; Norman Pern, St. Thomas Hospital; Samuel Henry Gilbert Cory, St. Mary's Hospital; Ralph Michell, Walter Silverwood Richardson, and Arthur Allan Miller, Guy's Hospital; Albert William Dunning-Hunt, Henry James Viney, Middlesex Hospital; and John Matthew Lefevre, McGill University, Montreal, Canada.

Anatomy only.—Arthur Henry McNeill Mitchell and Percy Bertram Spurgin, St. Mary's Hospital.

Physiology only.—Arthur Hawkins, Cambridge University and St. Bartholomew's Hospital.

Seventeen gentlemen were referred in both subjects, one in Anatomy and two in Physiology only.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentleman, having previously passed the necessary examinations, and having now attained the legal age of twenty-five years, was, at the quarterly meeting of the Council on Thursday, the 9th inst., admitted a Fellow of the College:—

Haines, John William, M.B., L.R.C.P. Lond., St. Bartholomew's Hospital (diploma of Member, July 30th, 1894).

The following gentleman, having previously passed the necessary examinations, and having now conformed to the by-laws and regulations, was admitted a Member of the College:—

Moorshead, Charles Woollven, L.S.A. Lond., Guy's Hospital.

A NEW SANATORIUM AT WORTHING.—The corporation of Worthing has just succeeded in acquiring upon very easy terms a large house on the South Downs as a sanatorium. It is four miles from the borough and on the southern slope, facing the Channel, and, without any alteration, it at once became available for the patients, who have since been removed from the hospital tents. No loan has been necessary, for the building has been secured by the coöperation of the council's bankers and some members of that body, who have advanced the money at about 3 per cent. and are leasing it on such terms that within a few years it will become the absolute property of the town. Dr. Charles Kelly, medical officer of the county of West Sussex, has been appointed medical superintendent of the hospital, but a medical officer has not yet been nominated. Negotiations are in progress with regard to the admission of Poor-law patients from the borough, for whom there will be ample accommodation.

SMALL-POX ISOLATION AT SOUTHAMPTON.—The health committee of the Southampton corporation has had to meet a rather awkward contingency. Some days before Christmas the medical officer reported to them that both the West Quay Hospital and the hospital ship were full of scarlet fever cases, and should small-pox occur they were totally unprepared for its isolation. As a matter of fact, a case was reported on board an incoming vessel, but on the medical officer visiting the ship he was told that the patient, a third-class emigrant, had been landed at Lisbon. The town had to pay heavily in 1893 in precisely similar conditions, a small-pox epidemic resulting from the want of isolation, and so efforts were at once put forth to secure outside temporary accommodation for the fever convalescents, so that the ship might be placed at the disposition of the authorities in case of need. These efforts were, however, fruitless, and about a fortnight later a case of small-pox was notified. The steward of the vessel referred to above had gone home apparently in the best of health, but in a fortnight fell ill with the disease, and there was nowhere for him to be taken. So the whole of the nursing staff was turned out of the land hospital and lodged in a furnished house in the town; the convalescents from the ship were moved into the staff quarters ashore, and the vessel, after thorough disinfection, was utilised for the reception of the case of small-pox. This met the needs of the emergency, and the committee are now engaged in negotiating for a site suitable for a new isolation hospital. One has been offered for £1200, and it is expected that the hospital will cost about £20,000. At the committee meeting at which these matters were discussed several members, including Mr. Eliot (who referred to it as "inadequate and monstrously bad"), alleged that the West Quay Hospital was quite unsuited to the needs of the district. It is proposed, when the new building is available, to hold the ship in reserve, primarily with a view to the reception of small-pox cases from abroad, which could then be accommodated without touching land.

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LITERARY INTELLIGENCE.—The "American Year Book of Medicine," edited by Dr. George M. Gould, of Philadelphia, which was announced as ready for delivery in the States on Jan. 1st, can be ordered from the Rebman Publishing Company, Limited, 11, Adam-street, Strand, who are, and will be in future years, the English agents for the publication of this work.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of the directors of this society was held on Jan. 8th at 8.30 P.M., Dr. Pollock in the chair. Three new members were elected and the deaths of five reported. There were no fresh applications for grants. It was resolved that a sum of £1162 be distributed among the fifty-one widows, the eight orphans, and the four orphans on the Copeland Fund. The expenses of the quarter were £76. The Christmas present, £462, had been given on Dec. 20th. A further sum of £500 had been received from the executors of Miss Carpue, making in all £3000.

ROYAL METEOROLOGICAL SOCIETY.—The annual meeting of this society was held on Wednesday evening, the 15th inst., at the Institution of Civil Engineers, Mr. R. Inwards, F.R.H.S., President, in the chair. The report of the council showed that the society was in a satisfactory condition, thirty-four new Fellows having been elected during the year. Mr. Inwards devoted his presidential address to the subject of Meteorological Observatories, which he illustrated with numerous lantern slides. After describing some ancient observatories, including the Nilometers and the Tower of the Winds at Athens, he gave an account of national observatories, of which the Royal Observatory, Greenwich, was taken as a type. Mr. E. Mawley, F.R.H.S., was elected President for the ensuing year.

THE DIFFUSION OF SMALL-POX.—There was an increase of fatal cases of small-pox last week in and around London, the metropolitan area and West Ham contributing three registered deaths from the disease. No deaths were registered in either of these areas during the preceding week, the first of the current registration year. In the last three months of the year just ended there were 12 deaths registered in the county of London, 1 in the northern, 3 in the eastern, and 8 in the southern groups of sanitary areas. As regards notified attacks, there were in the four weeks ending Dec. 28th in the whole of London 33, as compared with 36 in the like immediately preceding period. Only some 8 notifications per week have thus been recorded. The district of Greenwich is credited with 11 of the total 33 cases, and 6 were from as many separate sanitary areas. In the thirteen four-weekly periods of 1895 beginning with January the notifications of small-pox in London, duplicate entries of the same case not being excluded, were severally 35, 67, 47, 35, 40, 22, 88, 287, 236, 108, 42, 36, and 33, the total for the year being 1076. The heaviest period was in the three months of August, September, and October, the notifications in the twelve weeks comprised in these months being 631. Since October the disease has shown a continued decline month by month. Last week the admissions to the hospitals of the Metropolitan Asylums Board numbered 20, but it should be remembered that cases from West Ham are being now treated in the ships, as well as London cases proper. That the disease is not altogether eradicated may be seen from the fact that on Tuesday of last week there were 4 new cases recorded. The patients remaining under treatment on Saturday last were 66, a fall of 2 on the total of the preceding Saturday. In West Ham there were 10 new cases in the fortnight ending Jan. 4th. The condition of the streets where the attacks arose has been again exercising the attention of the town council. At Southampton, on Sunday last, a meeting of the health committee was convened by reason of a case of small-pox which was isolated on the floating hospital, the fever patients therein being removed ashore. At Oldham in the last two weeks of 1895 there were 4 cases of small-pox reported, as against 1 in the preceding two weeks. The Saddleworth rural district council have had before them the alleged spread of small-pox from the old Moscow hospital of the Oldham corporation, and have expressed their view that patients should no longer be sent there. On account of development of the disease near the hospital in question the Runninghall Hospital has been got ready for the reception of one of the cases. The Neath board of guardians have been in correspondence with the town of Aberdare as to a pauper case of small-pox, for whose maintenance in the town hospital the urban council desired the guardians should pay. In other parts of South Wales tramps seem to have been busy in disseminating small-pox, especially from Newport as a centre. In Newport itself, at Dowlais, and at Bridgend the disease has appeared as a result of vagrant-spread infection. At Merthyr Tydvil last week a tramp ill with small-pox was admitted to the workhouse, having come from Aberdare, and the authorities of the latter place have been advised to look carefully to their common lodging-houses. In Dublin during the last week of the old year, for the first time since the serious epidemic of small-pox began, no fresh cases were reported. In the succeeding week there was only one case.

THE EASTBOURNE WATER-SUPPLY.—The corporation of Eastbourne some time ago, after discussing certain reports on the water supplied by the water company, decided to promote a Bill in Parliament for the establishment of municipal waterworks. Excess of chlorides was the chief complaint against the present water-supply, and negotiations with the company proved somewhat unsuccessful, the chairman of the directors, the Duke of Devonshire, declining to meet a deputation from the council to consider the matter. Last week a vote was taken on the proposal to promote the Bill referred to. The voting was on the plural system, the maximum being twelve—six as owner and six as occupier. Out of 5167 papers only 3627 were good. The result showed a majority of 225 votes against the corporation, the figures being 3752 against the Bill and 3527 for it. Calculating on the "one man one vote" system, however, there was a majority of 219 for the council's proposed action.

PRESENTATIONS TO MEDICAL MEN.—At a meeting of the Bangor city council on Wednesday, the 8th inst., the ex-mayor, Alderman Robert Langford Jones, M.R.C.S. Eng., and the ex-mayoress were presented with a silver cradle to commemorate the birth of a daughter during their year of mayoralty. In addition to the members of the council there were present a large number of ladies and gentlemen. The presentation, which has been subscribed for by the members of the council and the citizens generally, is a beautiful work of art, and the production of Messrs. Elkington and Co., Church-street, Liverpool. Dr. R. Wilson has received a dressing-case and walking-stick from the members of the Glasgow College Station ambulance class in recognition of his courtesy and efficiency as lecturer to the class.—Mr. Arthur H. Hoffman, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been the recipient, on his approaching departure from Humsbough-on-Tyne, of a handsome drawing-room clock, in recognition of his able instruction on "first aid" to the Local Ambulance classes.

BOOKS, ETC., RECEIVED.

BAILLIÈRE, TINDALL, AND COX, King William-street, Strand, London.
The Journal of Microscopy and Natural Science. Editor, A. Allen. Vol. V., Third Series. Vol. XIV., Old Series. 1895. pp. 456.

CASSELL AND CO., London.
The Year-Book of Treatment for 1896: a Critical Review for Practitioners of Medicine and Surgery. pp. 476.

CHURCHILL, J. & A., New Burlington-street, London, S.W.
History of the Cholera Controversy, with Directions for the Treatment of the Disease. By Sir Geo. Johnson, M.D. Lond., F.R.C.P., F.R.S. 1896. pp. 78. Price 3s.

CHURCH OF ENGLAND TEMPERANCE PUBLICATION DEPÔT, 4, Sanctuary, Westminster, S.W.
The Effects of Alcohol upon the Internal Organs. By Drs. L. Revilliod and P. Bulet. Translated by W. F. Law, M.D., F.R.C.S. With Anatomical Diagrams.

KEGAN PAUL, TRENCH, AND CO., Charing-cross-road, London.
Handbook of the Diagnosis and Treatment of Skin Diseases. By A. V. Harlingen, Ph.B. Yale, M.D. Third Edition. Illustrated. 1895. pp. 577. Price 12s.
Manual of Gynæcology. By H. T. Byford, M.D. Illustrated. 1895. pp. 488. Price 10s. 6d. net.

LEA BROTHERS AND CO., Philadelphia.
System of Surgery. Edited by F. S. Dennis, M.D., assisted by J. S. Billings, M.D. Vol. III. Illustrated. 1896.

LONGMANS, GREEN, AND CO., London.
Quain's Elements of Anatomy. Edited by E. A. Schäfer, F.R.S., and George D. Thane. In Three Vols. Vol. III. Part 4. Illustrated. Tenth Edition. 1896. pp. 364. Price 16s.

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The Diseases of Children, Medical and Surgical. By H. Ashby, M.D. Lond., F.R.C.P., and G. A. Wright, B.A., M.B. Oxon., F.R.C.S. Eng. Third Edition. 1896. pp. 814. Price 25s.

MACMILLAN AND Co., London.

The International Encyclopædia of Surgery. Edited by John Ashhurst, jun., M.D., LL.D. Illustrated. In Seven Vols. Vol. VII. (supplementary volume). 1895. Price 31s. 6d.

PENTLAND, YOUNG J., Edinburgh and London.

Pediatrics: the Hygienic and Medical Treatment of Children. By Thos. M. Rotch, M.D. Illustrated. Vols. I. and II. 1896.

Traumatic Infection. Hunterian Lectures. By Chas. B. Lockwood, F.R.C.S. 1896. pp. 138.

THE NEW SYDENHAM SOCIETY, London.

An Atlas of Illustrations of Pathology, compiled chiefly from original sources for the New Sydenham Society. Fasciculus 10: Diseases of the Testis. Part 2, with Plates. 1895. (Agent: H. K. Lewis, Gower-street, London, W.C.)

THE REBMAN PUBLISHING COMPANY, Adam-street, Strand, London.

A Pictorial Atlas of Skin Diseases, from Models in the Museum of the Saint Louis Hospital, Paris. Edited by J. J. Pringle, M.B., F.R.C.P. Lond. 1895. Part 2. Price 10s. 6d.

THE SCIENTIFIC PRESS, 428, Strand, London, W.C.

The Nurse's Dictionary of Medical Terms and Nursing Treatment. By Honor Morten. Third Edition.

Brain: a Journal of Neurology; edited for the Neurological Society of London by A. de Watteville; winter, 1895 (Macmillan and Co., London); price 7s.—The Middlesex Hospital, W., Reports of the Medical, Surgical, and Pathological Registrars for the year 1894 (H. K. Lewis, London, W.C.); price 2s. 6d. net.—The Humanitarian; January, 1896 (Hutchinson and Co., London); price 6d.—Wright's new Improved Chart-holder: for Hospital Use and for Private Practice (J. Wright and Co., Bristol).—The Sanitary Record Diary, 1896 (Sanitary Publishing Company, Fetter-lane, London, E.C.)—The Local Government Annual: an Official Directory for 1896; fifth year of publication ("The Local Government Journal" Office, Dorset-street, Fleet-street, London, E.C.); price 1s. 6d.—Facultad de Medicina y Cirujia; Tesis de Doctorado por M. Cabrera (San Salvador, 1896).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANNINGSON, B., M.D. Cantab., M.R.C.S., has been reappointed Medical Officer of Health by the Cambridge Town Council.

BARKER, GORDON CAMPBELL, M.A. Camb., M.D. Brux., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Honorary Physician to the Brighton and Hove Dispensary.

DARLEY, ALFRED R., M.D., B.Ch. Dubl., has been appointed Medical Officer of Health for the Daventry Rural District, vice William John Franklin Churchouse.

DESPARD, Miss R. C., M.B. Lond., has been appointed a Junior Assistant Medical Officer at the Holloway Sanatorium Hospital for the Insane, Virginia Water, vice Emily Dove.

GARRAD, F. W., M.B., B.C. Cantab., has been appointed House Surgeon to the Warneford and South Warwickshire Hospital, Leamington.

GILES, H. O'H., M.B., Ch.B. Adel., has been appointed Health Officer for the Wyndham Shire, Victoria, Australia, vice Heard, resigned.

HENRY, G. G. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health by the Minehead Urban District Council.

HIGGS, W. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Castlecombe Sanitary District of the Chippenham Union.

HOLDEN, J. S., M.D. Irel., L.R.C.S. Edin., has been appointed Medical Officer of Health by the Belchamp and Melford Rural District Council.

HOLLINGS, H. T., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Holme-on-Spalding Moor Sanitary District of the Howden Union.

JOHNSTONE, WALTER E., M.A., M.B, C.M. Edin., has been appointed House Surgeon to the Darlington Hospital and Dispensary.

MANBY, EDWARD PETRONELL, M.D., D.P.H. Camb., has been appointed Assistant Medical Officer of Health for Liverpool.

MARTINE, W. R., M.B. Edin., C.M., has been appointed Medical Officer and Vaccinator to the Athelstaneford Parish Council, Haddington, and Medical Officer and Vaccinator to the Morham Parish Council, Haddington.

MORCOM, A., L.R.C.S., L.M. Edin., has been appointed Medical Officer by the Dunstable Town Council.

PHILLIPS, JOSIAH N., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Cannock Rural Sanitary District, vice J. C. Blackford, resigned.

PORTER WM. S., M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Examiner of Lunatics by the Sheffield City Magistrates, vice A. Jackson, deceased.

REID, GEO. M., M.B., Ch.M. Aberd., has been appointed Health Officer for the Heytesbury Shire, Victoria, Australia.

STRANGE, A., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Infirmary of the Whitechapel Union.

WILLS, CHAS., M.R.C.S., has been appointed Medical Officer of Health by the Blyth and Cuckney, Clown, and Kiveton Park Rural District Council.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BOOTLE BOROUGH HOSPITAL.—Senior House Surgeon. Salary £80 per annum, with board, washing, &c.

BRADFORD INFIRMARY.—Dispensary Surgeon. Salary £100 per annum, with board and residence.

CHILDREN'S HOSPITAL, Nottingham.—House Surgeon (non-resident) for six months. Salary at the rate of £100 per annum.

CITY ASYLUM, Birmingham.—Resident Clinical Assistant. Board and residence provided.

DORSET COUNTY HOSPITAL, Dorchester.—House Surgeon, unmarried, to reside and board in the hospital. Salary £70.

DUNDEE ROYAL LUNATIC ASYLUM.—Resident Clinical Assistant. Board and residence provided. Applications to Dr. Rorie, Westgreen House, Dundee.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N.—Junior House Surgeon. Board, lodging, and laundry provided in the hospital.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent-square, Westminster.—Assistant Physician.

LONDON HOSPITAL, Mile-end, E.—Two Assistant Anæsthetists for six months. Salary at the rate of £50 a year each.

MIDDLESEX HOSPITAL MEDICAL SCHOOL, Cleveland-street, W.—Lecturer on Anatomy, and a Lecturer on Physiology.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (ALBANY MEMORIAL), Queen-square, Bloomsbury, W.C.—Assistant Physician.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-upon-Trent.—Assistant House Surgeon for six months. Board, apartments, and washing provided.

PARISH OF LIVERPOOL.—Assistant Medical Officer for the Workhouse, Brownlow-hill, unmarried. Salary £80 per annum, with rations, an additional sum of £20 being allowed for examining applicants for out-door relief. To reside within the workhouse in the apartments provided for him. Applications to the Vestry Clerk, Parish Offices, Brownlow-hill.

ST. THOMAS'S HOSPITAL, Westminster-bridge.—Junior Anæsthetists.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN, Marylebone-road, N.W.—Surgeon to the Out-Department.

TOWER HAMLETS' DISPENSARY.—Resident Medical Officer. Salary £120 per annum, furnished rooms, coals, gas, and attendance. Applications to the Secretary, Tower Hamlets Dispensary, White Horse-street, Stepney, E.

WEST LONDON HOSPITAL, Hammersmith-road, W.—Assistant Physician.

Births, Marriages, and Deaths.

BIRTHS.

ANDREWS.—On Jan. 10th, at 3, Chelsea Embankment, the widow of Launcelot Andrews, M.D. Lond., late of 22, Cheyne-gardens, of a daughter, who lived only a short time.

BOWKER.—On Jan. 7th, at Cwmbrau House, Newport, Mon., the wife of C. Stanser Bowker, L.R.C.P. Edin., of a son.

HOWELL.—On Jan. 13th, at Middlesbrough-on-Tees, the wife of R. Edw. Howell, M.B. Edin., M.R.C.S., L.R.C.P., of a daughter.

MOLSON.—On Jan. 7th, at Lingfield-road, Wimbledon, the wife of J. Cavendish Molson, L.R.C.P. Lond., of a daughter.

OLIVE.—On Jan. 7th, at Leamington, the wife of Eustace J. P. Olive, M.A., M.D. Cantab., F.R.C.S., of twin daughters.

SANDERS.—On Jan. 9th, at Châlet St. Vincent, Cannes, the wife of Gordon Sanders, M.B., F.R.C.P. Edin., of a son.

VOELCKER.—On Jan. 8th, at Harley-street, the wife of Arthur F. Voelcker, M.D., of a daughter.

MARRIAGES.

CLARK—MATTHEWS.—On Jan. 8th, at St. Paul's, New Beckenham, Arthur Desborough Clark, L.R.C.S., L.R.C.P. Edin., son of the late Thomas Clark, of Lauriston, Beckenham, to Annie Rutherford, only daughter of George Kelly Matthews, St. John's Lodge, Beckenham, Kent.

COATES—FREELAND.—On Jan. 11th, at the Cathedral, Chichester, by the Very Reverend the Dean, William Coates, M.R.C.S., L.R.C.P., Ingleside, Whalley Range, Manchester, to Leonora Stilwell, sixth daughter of the late Frederic John Freeland and of Mrs. Freeland, Chichester.

MARSHALL—JAMES.—On Jan. 15th, at St. Stephen's, Redditch, by the Rev. Canon Newton, assisted by the Rev. R. Hall, M.A., William Lawrence Wright Marshall of Huddersfield, elder son of the Rev. T. L. Marshall of London, to Catherine Elsie, youngest daughter of C. B. James, Esq., of Oaklands, Redditch, Worcestershire.

NIAS—DAYRELL.—On Jan. 8th, at St. Jude's Church, South Kensington, Joseph Baldwin Nias, M.D. Oxon., eldest son of the late Admiral Sir Joseph Nias, K.C.B., to Frances Miriam Clare, second daughter of Captain Edmund Dayrell, R.N.

SHAW—LORD.—On Jan. 8th, at Hove Parish Church, George Shaw, M.B. Lond., of The Drive, Hove, to Annie Louise, third daughter of C. W. Lord, Esq., of The Drive, late of Acton Hall, Sudbury.

DEATHS.

TUPPEN.—On Jan. 9th, at Nagasaki, West Cliff-road, W., Bournemouth, Harry Stacey Tuppen, M.A., M.B. Camb., aged 32 years.

WATTS.—On Jan. 7th, Robert George Watts, M.A., M.D. St. And., Albion House, Quadrant-road, Canonbury, aged 62 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2 30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—SOCIETY OF ARTS.—8 P.M. Dr. J. A. Fleming: Alternate Current Transformers. (Cantor Lecture.)

TUESDAY.—PATHOLOGICAL SOCIETY OF LONDON.—Papers:—Messrs. Kanthack and Stephens: The Escape of Diphtheria Bacilli into the Blood and Tissues.—Mr. Raymond Johnson: Extensive Hæmorrhage due to Pyogenic Organisms.—Dr. Pye Smith: (1) Syphilitic Arteritis of the Ascending Aorta; (2) Cancer of Colon associated with Membranous Colitis.—Dr. Pitt: Epithelioma in an Œsophageal Pouch. Card Specimens:—Mr. Richard Lake: Urinary Calculi from an Ox.—Dr. Rolleston: Metastatic Growth in Breast.

WEDNESDAY.—DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—5 P.M. Cases by Drs. Stowers, Abraham, Walsh, and others. Dr. Eddowes: Warts of the Feet.

HUNTERIAN SOCIETY.—8 P.M. Clinical Evening. Sir Hugh Beevor: Hemiplegic Tremor.—Dr. Fred. J. Smith: (1) Hemianopsia; (2) Motor Aphasia.—Mr. Wm. Ettles: Cuticular Disease for Diagnosis.—Dr. J. F. Woods: Cervical Neuralgia treated by Suggestion without Hypnotic Sleep. And other cases.

SOCIETY OF ARTS.—8 P.M. Mr. Frank W. Grierson: Supply of Sea-water to London.

FRIDAY.—CLINICAL SOCIETY OF LONDON.—Dr. A. Wilson: A Girl after Meningitis in Hystero-epileptic state with Dual Existence.—Dr. Norman Dalton: Myopathic Muscular Atrophy in an Adult.—Mr. J. R. Lunn: Suppuration of the Shoulder-joint in a Man aged sixty-three, Twice Incised Excision of the Temporo-maxillary Joint for Arthritis Deformans, Charcot's Disease of Shoulder-joint.—Mr. H. Paterson: A Case of Extensive Skin Grafting.—Mr. H. B. Robinson: Birth Injury to Upper Extremity of Femur.—Mr. C. Mansell Moullin: Impaired Growth of Lower Epiphysis of Tibia consequent on a Strain.—Mr. Raymond Johnson: Case of Traumatic Orbital Aneurysm.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

TUESDAY.—ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals, its Structure and Functions.

WEDNESDAY.—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Maguire: Aortic Disease.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Diseases of Sweat Glands.

THURSDAY.—ROYAL INSTITUTION.—3 P.M. Mr. Philip H. Wicksteed: Dante.

FRIDAY.—ROYAL INSTITUTION.—9 P.M. Prof. Burdon Sanderson: Ludwig and Vitalism.

SATURDAY.—ROYAL INSTITUTION.—3 P.M. Mr. Walter R. Lawrence: The Valley of Kashmir.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Pityriasis Rubra Pilaris.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 16th, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp	Rain-fall.	Remarks at 8.30 A.M.
Jan. 10	30 80	N.	37	36	42	41	35	...	Cloudy
,, 11	30 64	N.E.	41	40	48	45	37	0·04	Raining
,, 12	30 41	W.	40	38	44	42	38	...	Cloudy
,, 13	29·94	N.W.	40	39	61	49	39	0·02	Cloudy
,, 14	29 30	N.W.	49	47	50	50	40	0·07	Cloudy
,, 15	29 55	W.	46	45	61	53	38	0·09	Overcast
,, 16	29 97	W.	41	39	67	48	39	0·06	Cloudy

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*.

To be obtained on application to the Manager, accompanied by remittance.

LAY MISUSE OF PROFESSIONAL LANGUAGE.

THIS is a subject on which the late Sir Thomas Watson was equally instructive and amusing, as readers of his classical "Practice of Physics" can readily recall. That there is still occasion for his pleasant animadversions on the theme is suggested to us in a quarter where we least expected to find it—the prose writings of that purist in English style, the late Mr. R. L. Stevenson. At p. 265 of his "Vailima Letters" we read, "The influenza appears to become endemic here; but it has always been a scourge in the islands." If, as he knew it to be, influenza was "always a scourge in the islands," then the disease did not apparently "become," but actually was, "endemic." Perhaps he meant to say influenza appears to become "epidemic," while it has really been "endemic"—a quite intelligible distinction.

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DRUGGISTS ACTING AS MEDICAL MEN.

AT Preston the coroner, Mr. J. Parker, has held an inquest on the body of Mary Ellen Winstanley, aged thirty-nine years, wife of John Winstanley, landlord of the Brickmakers' Arms, who was found post mortem to have died from pneumonia without having received medical attention. She was ill for a week, and the husband sent for a druggist, who called to see her repeatedly. The coroner pointed out that there was a custom in the town of people not duly qualified going out of their way to act as professional men. He asked the druggist whether he knew he was liable to penalties. The druggist maintained he had only charged for medicines and advised that if the patient were worse a medical man should be sent for. The coroner intimated that in his opinion, if the patient had had proper medical advice, she might have recovered. A verdict of "Death from natural causes" was nevertheless passed. The case should be taken up by the Apothecaries' Society. It is shocking to think that in a town like Preston a woman should be ill a week suffering from pneumonia and be attended only by a druggist.

Mr. W. Hughes.—The two preparations mentioned hardly permit of strict comparison in regard to their composition; one is an extract containing meat extractives and some meat fibre, a food and a stimulant, while the other is a meat juice expressed in the cold and consequently contains meat albumin in an unaltered state. The latter preparation turns solid on heating, due to coagulation of albumin, which, as Professor Burney Yeo says, no other class of alimentary substance can adequately replace in sustaining the vital processes.

J. H. N.—In THE LANCET of Dec. 22nd, 1883, some details are quoted from Dr. Voisin of Paris of cases which have recovered after a submersion of five minutes. So far as we know, this is the longest period of *complete submersion* after which a person has recovered.

SACCHARIN AND RHEUMATISM.

To the Editors of THE LANCET.

SIRS,—Does the use of saccharin induce rheumatism? Knowing from personal experience that if I indulged in the use of sugar rheumatism surely followed, but not expecting the same result from saccharin, I lately for about ten successive days took one tabloid in my coffee. I was disappointed, however, by finding that my right arm was partly disabled from rheumatism in the shoulder, exactly as I had found was the case after the use of sugar.

I am, Sirs, yours faithfully,

Taunton, Jan. 13th, 1896. W. M. KELLY, M.D. Edin.

*** Experiments made by Dr. T. Stevenson and Dr. L. C. Wooldridge (*vide* THE LANCET of Nov. 17th, 1888) led them to the following conclusions:—"1. Saccharin is quite innocuous when taken in quantities largely exceeding what would be taken in any ordinary dietary. 2. Saccharin does not interfere with or impede the digestive processes when taken in any practicable quantity. 3. Our personal experience is that saccharin may be taken for an extended period without interfering with the digestive and other bodily functions. Hence there is no reason to think that its continued use is in any way harmful." Again, Dr. Macnaughton Jones, in a letter in THE LANCET of Feb. 2nd, 1889, said that he had never known any injurious effects to follow its exhibition, though he had had several patients who had substituted it for sugar.—ED. L.

ON Wednesday last an action was brought in the Whitechapel County Court against a dentist to recover the sum of £2 10s. paid to him for artificial teeth alleged to be of an inferior quality. All the evidence (which included testimony from the house surgeon of the Dental Hospital) went to show that the plaintiff was originally satisfied with the treatment she had received. She was complaining, in Judge Bacon's opinion, because teeth bought in January broke in October as the result of an accident, and he held that she could not recover the sum paid, and that the dentist had done his work in a proper manner.

The East Dulwich Provident Dispensary.—We have received a communication with regard to this institution which is too vague for publication.

THE LATE JOHN SAVAGE AND NEW ZEALAND.

To the Editors of THE LANCET.

SIRS,—Can you or any of your readers give me any information regarding Mr. John Savage, surgeon, and corresponding member of the Royal Jennerian Society, who in 1807 published a book entitled "Some Account of New Zealand, &c."? Probably the Transactions of the Society may give the desired information, but I have no knowledge of them.

I am, Sirs, yours truly,

Dunedin, N.Z., Oct. 3rd, 1895. T. M. HOCKEN.

FAITH HEALING IN COLORADO.

A CURIOUS example of faith healing reaches us from far Colorado—the home, amongst other noxious things, of the notorious beetle. A cobbler of Denver, whose name has not transpired—as the picturesque reporters say—having heard a celestial voice enjoining him to quit his apron and stall and go forth in order to qualify himself for the healing of the faithful, proceeded alone several days journey, barefooted and hatless, into the desert, where he remained, without shelter or food, for a hundred days. Equipped for his mission in such an unexceptionable manner, the whilom patcher of shoes returned to his native city, though not to his former abode therein, and forthwith set up as a curer of all the diseases under the sun. The method adopted by this latest specimen of the latter-day saint is as uncomplicated as the training undergone might lead an ordinary person to surmise. He simply grasps the hand of the patient, presses it firmly, and with upturned eyes exclaims, "Have faith, and you will be cured!" The results obtained are, as usual, said to be marvellous. Dozens of the most desperate cases have been permanently cured, and hundreds of people afflicted in every conceivable way are daily flocking into Denver to have their hands squeezed. It is only fair to add that the ex-cobbler makes no charge whatever. He exacts no fees and accepts no presents of any description. How he manages to live is therefore a profound mystery, since his fasting was limited to 100 days. The wonderful success attendant on this patcher is, of course, described as a terrible blow to the medical faculty; but there is another, and a far greater, sufferer from loss of prestige—the ancient and oft-quoted adage, "Ne sutor ultra crepidam," can never again hold up its head.

C. de B. B.—We never recommend individual practitioners. Our correspondent should consult his regular medical man as to the necessity for further advice and the person from whom it should be sought.

Æsculap, who has omitted to enclose his address, and whose name cannot be traced by us in our list of correspondents, is requested to point out to us privately where the publicity occurred.

T. D. H.—"A Manual of Public Health," by A. Wynter Blyth, M.R.C.S. London: Macmillan and Co., 1890.

BLEEDING IN CATTLE.

To the Editors of THE LANCET.

SIRS,—It has occurred to me that the advantages of phlebotomy are somewhat overlooked. Some time ago a Texan cattle manager told me that when they had an animal that did not thrive they bled it to faintness. It generally throve immediately and became fat. I remember a wound of the deep arch in a little, puny, scrofulous boy. The lad was completely blanched by repeated and severe hæmorrhage, but soon after the healing of the wound his constitution underwent a complete change. The enlarged cervical glands and hypertrophied tonsils disappeared, and from a peevish, irritable nuisance he became quite a fat, robust, active, and genial little fellow. Thinking that these facts may interest some readers,

I am, Sirs, yours faithfully,

South Norwood, Jan. 14th, 1896. J. G. CARRUTHERS.

WANTED, A HOME FOR A DIPSOMANIAC.

To the Editors of THE LANCET.

SIRS,—I should be much obliged if any of your readers could inform me of any institution that would receive a male patient who is a confirmed dipsomaniac, and whose income is only £30 a year, where he can be kept from stimulants. The patient, who has been a great expense and constant worry to his relatives, is about forty-four years of age and has excellent health.

I am, Sirs, your obedient servant,

Jan. 13th, 1896. M.D.

During the week marked copies of the following newspapers have been received:—*Bradford Observer, Jersey Express, Galignani Messenger, Scarborough Gazette, Sanitary Record, Brighton Gazette, Wolverhampton Chronicle, South Wales Daily News, North Star, Pullin's Kent Argus, Leicester Daily Post, Northern Whig, Manchester Courier, Islington Gazette, Irish Times, Birmingham Gazette, Sussex Daily News, Pioneer Mail, Architect, City Press, Times of India, Leeds Mercury, Builder, Rochdale Observer, Scotsman, Yorkshire Post, Bury Guard, The London, Liverpool Daily Post, Kent Herald, Bristol Mercury, Worcester Herald, Family Doctor, Dundee Advertiser, Huddersfield Examiner, Rothesay Express, Mining Journal, Reading Mercury, Local Government Chronicle, Batley and Birstall News, Hertfordshire Mercury, Borough of Marylebone Mercury, Hemel Hempstead Gazette, Folkestone Express, West Middlesex Standard, Derby and Derbyshire Gazette, Weekly Free Press and Aberdeen Herald, Surrey Advertiser, Dover Standard, Gloucestershire Chronicle, Dewsbury District News, Local Government Journal, Hawick Express, Devon County Standard, Christian News, Australian Medical Journal, General Advertiser (Dublin), Le Courrier de la Presse, Brighton Standard, Hampshire Advertiser, Uxbridge Gazette, Northern Guardian, Alloa Advertiser, Somerset County Gazette, West London Press, Devon and Exeter Gazette, &c., &c.*

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Harveian Lectures

ON THE

HEART IN ITS RELATION TO PREGNANCY, PARTURITION, AND THE PUERPERAL STATE.

Delivered before the Harveian Society on Dec. 5th, 12th, and 19th, 1895,

BY MONTAGU HANDFIELD-JONES, M.D. LOND.,

OBSTETRIC PHYSICIAN TO ST. MARY'S HOSPITAL, AND LECTURER ON MIDWIFERY AND DISEASES OF WOMEN TO ST. MARY'S MEDICAL SCHOOL; PHYSICIAN TO THE BRITISH LYING-IN HOSPITAL; EXAMINER IN MIDWIFERY TO THE CONJOINT EXAMINING BOARD FOR ENGLAND.

LECTURE II.[1]

Delivered on Dec. 12th, 1895.

MR. PRESIDENT AND GENTLEMEN,—Having established that disorders of compensation and weakening of the muscular tissue of the heart by fatty degeneration are the two principal evils to which the heart, whether sound at the onset of pregnancy or weakened by the presence of valvular disease, is exposed during pregnancy, parturition, and the puerperal state, we may proceed now to study the existence of heart failure in either of these three stages.

I.—HEART FAILURE DURING PREGNANCY.

It will be convenient under this heading to regard (1) those cases in which failure on the part of the left ventricle is most obvious and gives rise to special trouble; (2) those cases in which the symptoms point principally to weakness of the right ventricle; and (3) instances of failure due to fatty degeneration.

1. Failure of left ventricle.

In his Clinical Lectures on Diseases of Women Dr. Matthews Duncan says: "It is only recently that great care has begun to be paid to the bearings of disease of the heart upon pregnancy and parturition; I know of none paid to the bearings of disease of the heart upon abortion. It is a subject well worthy of attention and study." It is now more than ten years ago since the above quotation arrested my attention, and during this time I have endeavoured, both in my private and hospital practice, to trace how far a connexion exists between morbid conditions of the heart and the occurrence or recurrence of abortion. So far as my researches into the literature of the subject have gone, I cannot discover that any great advance has been made in our knowledge of the relations between heart condition and abortion, or that any writer has endeavoured to follow out the investigation suggested by Dr. Matthews Duncan's words. The pathology of intra-uterine death has been ably treated by Sir William Priestley in his Lumleian Lectures, but even here I have failed to find anything more than a passing reference to the influence exerted by cardiac conditions on the progress of pregnancy. In his work on "Heart Disease during Pregnancy" Dr. Angus Macdonald has, it is true, pointed out that in a large proportion of cases of mitral stenosis pregnancy is terminated by the onset of spontaneous premature labour; and Duroziez, in his paper on "Pure Stenosis of the Mitral," remarks that this lesion is apt to be accompanied by a special tendency to the occurrence of abortion and premature delivery; but both these writers dwell more extensively on the onset of premature delivery in the later weeks of pregnancy, and confine their attentions principally to mitral valvular disease. How great an influence valvular disease of the heart may have in determining the occurrence of abortion, and what the relative value of the individual forms of valvular disease may be to each other in this respect, I am not yet prepared to state; but, so far as my observations have at present led me, I am inclined to think that the presence of valvular disease does not, broadly speaking, interfere materially with the progress of pregnancy, provided that sufficient compensatory hypertrophy of the muscular walls be present. Putting aside, then, for a time the consideration of valvular affections, we shall endeavour to judge whether the absence or insufficiency of the usual hypertrophy of the left ventricle, which should accompany every pregnancy, is a not uncommon cause of the occurrence and recurrence of premature emptying of the uterus in the earlier months of pregnancy. We have already accepted the theory of hypertrophy of the left ventricle in pregnancy as a proven fact, and may now formulate that if the overgrowth is absent or insufficient the heart will, as pregnancy advances, show signs of failing power, and, conversely, that if the left ventricle does exhibit symptoms of failing during the progress of gravidity, we may reasonably assume that the compensatory hypertrophy is either wanting or else insufficient in degree. Another point for our consideration is this: the condition of the systemic circulation at its periphery depends very largely on the mode of action of the left ventricle. If the latter is healthy, vigorous, and possesses good driving-power, then, *ceteris paribus*, the circulation in the arterioles and capillaries is brisk, the walls of the small vessels are normal and intact, and leaking or extravasation does not take place. If, on the contrary, the left ventricle is acting in a failing or imperfect fashion, either from weakness of the muscular wall or from defects in its valvular apparatus, then the blood stream at the far points will be sluggish, the walls of the arterioles and capillaries will tend to become unhealthy, and dropsy or small hæmorrhages are very likely to take place. Having briefly considered these points, we may now pass on and review some cases which serve to illustrate abortion due to cardiac failure. I have not included under this heading any cases of valvular disease, as I wish to point out the effect of weakness of the left ventricle apart from the consideration of mechanical conditions dependent on valvular insufficiency.

CASE 1.—A woman aged thirty-four, married for fourteen years, was of large and flabby build. She came to my out-patient department complaining of frequent miscarriages. Her history was as follows. She had given birth after marriage to two healthy full-term children, the two pregnancies following each other rather closely; then she had had seven miscarriages, the last only a fortnight previously. Her health had never been good since the last full-term pregnancy; during and after this she had suffered with palpitation, shortness of breath, and inability for much exertion. All her miscarriages had taken place between the end of the third and fourth months. According to her own account she usually felt fairly well until well advanced into the third month of her pregnancies, then she began to suffer from great shortness of breath, palpitation, precordial pain, and swelling of the legs. This state of things became intensified gradually, and then abortion followed. Examination of the heart showed that the apex-beat was hardly defined and very feeble: it was slightly outside the vertical nipple line; there was no valvular bruit, but the first sound was short and feeble. The area of cardiac dulness was, if anything, somewhat increased. A mixture of ammonia and digitalis was prescribed, and ten grains of saccharated carbonate of iron were ordered to be taken morning and evening. Under this treatment she improved materially and again became pregnant. When three months' gone she was still doing well; the swelling of the legs and other signs of cardiac failure had not appeared. Wishing, however, to give the heart every chance, I took her into the New Boyton Ward, St. Mary's Hospital, and gave her the opportunity of complete rest, good feeding, and freedom from muscular strain. Under this *régime* she went on well and reached safely the sixth month of pregnancy; then, feeling herself so well and thinking herself safe, she returned home, resumed her laborious occupation, became rapidly worse, and miscarried at the end of the sixth month. Had she remained in the hospital quietly I think there is little doubt she would have gone to full term. A vaginal examination was made in this case on several occasions, during both the pregnant and non-pregnant states, and beyond a slight bulkiness of the non-gravid uterus nothing abnormal could be detected. There was no evidence of any syphilitic taint. It is rather noteworthy that this patient had only two sisters, and that each of these women had valvular disease of the heart—one mitral stenosis and the other a mitral systolic murmur.

CASE 2.—A married woman aged thirty-two, fairly healthy-looking, had been pregnant five times, but had never carried a child up to full term. With her first two pregnancies she went as far as six months and then miscarried; with her last

[1] Lecture I. was published in THE LANCET of Jan. 18th, 1896.

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three she only reached the fifth month. Her family history was good, and after careful investigation no trace could be discovered of a syphilitic taint. Vaginal examination revealed a perfectly normal condition of her uterus and its appendages. In the account she gave of her various pregnancies there was, however, one constant symptom which was very suggestive, and that is that in all her pregnancies she had suffered from repeated attacks of fainting. On each occasion when she had been in the family way these attacks of fainting had set in towards the end of the third month and continued until the pregnancy closed, becoming more frequent and worse in the later months. In the intervals between her pregnancies she was free from this symptom. When I saw her for the first time, soon after the close of her fifth pregnancy, a very careful examination of the heart was made, but no sign of hypertrophy of the left ventricle could be discovered; there was no displacement of the apex, no increase in the area of cardiac dulness, and no murmur or other modification of the sounds could be heard, except a weakness and shortness of the first sound heard at the apex. Thinking the cause of the frequent miscarriages and faintings was probably due to insufficient cardiac power, I determined, should she again become pregnant, to direct my attention to stimulating the heart. In November, 1884, she ceased to menstruate, and I at once prescribed cardiac tonics for her, made her take a certain amount of stimulant, and regulated her exercise and muscular exertions; through the whole of this pregnancy she was entirely free from any fainting or cardiac distress and, having gone up to the end of the eighth month of gestation, was delivered of a healthy male infant.

CASE 3.—A married woman aged thirty-five gave the following interesting history. Always fairly strong and well, she married at twenty-two and had her first child at full term about ten months after marriage. Nothing noteworthy occurred in this pregnancy, but about a year later she passed through an acute and prolonged attack of rheumatic fever. From this she recovered without any valvular lesion apparently, but as she suffered from shortness of breath on exertion, palpitation, and indifferent health, it is probable that the heart did not altogether escape damage. While in this state of health she became pregnant, but miscarried at the end of the second month; when she again became pregnant she aborted at the end of the third month. After this she did not become pregnant for a year or more, and meanwhile, under medical treatment, her health greatly improved. In her next pregnancy she went nearly her full term, but had great swelling of the legs in the later months, accompanied by breathlessness on exertion, palpitation, and faintings. Next followed four miscarriages, each terminating about the end of the fourth month and each accompanied by signs of cardiac failure; then came a considerable rest from child-bearing. Some years later a living child was born at full term, but in the later months of this pregnancy dropsy of the lower extremities and of the abdomen, faintings, and dyspnœa were very marked. Soon after this she came under my care, and her health became gradually much improved before she again became pregnant. As soon as she reached the second month of utero-gestation she was put on iron and digitalis, with occasionally small doses of strychnine. She was made to live on one floor and forbidden to go upstairs, as all severe muscular exertion was prohibited. Through this pregnancy the patient passed comfortably, with no œdema of the legs, no fainting, and very little evidence of any cardiac failure.

CASE 4.—A married woman aged thirty-nine came to see me in January, 1892. She was a delicate-looking woman, but stated she had always enjoyed fair health and, with the exception of scarlet fever when nine years old, had never had any serious illness. She was married at the age of twenty, and her child-bearing history was as follows. After marriage four healthy, full-term children were born; then she had four consecutive miscarriages, all of which occurred in the fourth month of utero-gestation; upon these came a living full-term child, and this was followed by three miscarriages, two of which were in the fourth month. The last miscarriage took place in August, 1891. The patient stated that she noticed that she became very breathless when pregnant and that after the second month she was subject to constant faintings. After the last miscarriage in August of last year her lips were very purple for some hours. At the time of her visit, though hardly two months advanced in her pregnancy, she was complaining of breathlessness and faintings on exertion and her lips were livid. Examination of the heart showed that the area of dulness was decidedly increased; the apex beat was diffuse and situated outside the vertical nipple line. There was no distinct murmur to be heard anywhere, but the first sound at the apex was suggestive of dilatation. The pelvic and other large organs were found to be healthy. A mixture of iron with carbonate of ammonia and ether was ordered, and the patient made to lie upon a couch for the greater part of the day. All severe exertion or strain was forbidden. In April the report was as follows: "Much better; no fainting; breathlessness very little marked; sleep and appetite fair; some heartburn; otherwise fairly well. Pregnancy proceeding satisfactorily." In January, 1893, the patient called to say that she had enjoyed good health through the remaining part of her pregnancy and that she had been delivered at full term of a healthy child.

It would be easy to quote from my notebook many similar cases which illustrate equally well the relation of an overstrained heart to abortion, but the four just narrated will serve as a sufficient text for my argument. Very little study of the cases just quoted suffices to establish beyond doubt that the heart was on each occasion unequal to its work. Making all allowance for the unstable equilibrium of the nervous system which attends every pregnancy, yet the repeated faintings, the œdema of the lower extremities, the palpitation, the dyspnœa, and other signs all pointed unmistakably to cardiac failure. Again, it is impossible not to connect this failure most intimately with increase in size of the gravid uterus, for the symptoms of heart distress commenced in most cases during the third month (when the heart was beginning to feel an increasing strain) and grew decidedly worse as pregnancy advanced, only ceasing, as a rule, when delivery had supervened and the mother's circulation had returned to its normal condition. That the want of power in the heart's action is due to an absence of the normal compensatory hypertrophy seems almost certain. The actual confirmatory proofs of the post-mortem room are fortunately absent; but the feeble, diffuse apex-beat, the soft, short first sound at the apex, and the character of the sphygmographic tracing all point to the same conclusion. It is equally clear that the condition of the heart before the onset of pregnancy and the degree to which the compensatory hypertrophy is absent will play an important part in determining (1) how soon the signs of cardiac insufficiency will manifest themselves, and (2) how marked those symptoms will be.

Pathological appearances.—The ova expelled by the uterus in these cases presented a fairly constant appearance; when examined shortly after expulsion they were found to be dotted over with small hæmorrhages, varying in size from a split pea to a threepenny-piece, varying, too, in colour according as the extravasation of blood had been recent or of some standing. The hæmorrhage had clearly taken place between the wall of the uterus and the membranes; in a few instances large blood clots were found, but usually the hæmorrhages were small in size.

Theory of abortion.—It is not difficult now to follow out the course of events and see how premature expulsion of the ovum is effected. The first factor in the chain of events is the enfeebled power of the left ventricle; as a result of this the blood-stream no longer passes briskly through the small vessels of the periphery, but is driven in a sluggish manner from artery to vein. The inevitable effect of this is that the walls of the arterioles and capillaries rapidly deteriorate, commence to bulge, and then to leak, and thus blood extravasations are frequently permitted. This process is seen to perfection if a piece of pia mater or omentum, through the vessels of which a sluggish blood current has been passing for some time, is examined under the low power of a microscope; bulging and spoilt vessel walls with small extravasations are seen everywhere. Each small extravasation between the uterine wall and the membranes of the ovum separates the latter partially from the uterus, and when sufficient separation has occurred the ovum becomes practically a foreign body, and as such is cast off, or, in other words, abortion occurs. Confirmation of the correctness of this theory—namely, that the ovum is gradually separated from the uterine walls by these small extravasations—is afforded by the clinical fact that small and repeated blood losses per vaginam often take place in these cases for many days before final expulsion of the ovum occurs.

Treatment.—If we accept the views propounded as correct our treatment becomes at once clear. It is briefly to spare the heart as much as possible by maintaining the recumbent

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posture largely and by avoiding any severe muscular exercise, and at the same time, by good hygiene, liberal diet, stimulants, and cardiac tonics, to improve the nutrition of the organ.

2.—Failure of Right Ventricle.

Hitherto we have dealt exclusively with failure of the left ventricle and have seen its effect in interfering with the course of pregnancy; now, as we turn to study failure in connexion with the right side of the heart, we shall see that equally disastrous consequences may follow incompetency of the right ventricle. Situated as the latter is between the systemic venous circulation and the pulmonary circulation, failure in its mechanism is naturally liable to lead to more extensive disaster. Most of the authors who have written on cardiac failure in connexion with child-bearing seem to admit that two principal sources of trouble arise in connexion with an embarrassed right heart—viz., (1) pulmonary troubles, and (2) premature labour. Thus Dr. Angus Macdonald says: "Symptoms of evil omen arise chiefly in the region of the lesser circulation, present themselves in the form of extreme dyspnœa, suffocation, bronchial catarrh, œdema of the lungs, &c., are extremely apt to be complicated by the spontaneous onset of *premature labour*, and frequently end in death either during delivery or the childbed period. The urgent symptoms seldom occur till the first half of the pregnancy is past and increase as the period of utero-gestation advances, provided premature labour does not come on." Spiegelberg also is of the opinion that from over-distension of the pulmonary channels symptoms of disturbed pulmonic circulation may gradually appear *during the pregnancy*, especially within the later months, or suddenly if from any cause the diaphragm is persistently kept in the position of expiration. Even under such conditions of mechanically obstructed pulmonary circulation competency may be established by hypertrophy of the right ventricle, and the symptoms may subside rapidly after labour; sometimes an aggravation of the symptoms, with dyspnœa, pulmonary catarrh, pulmonary œdema, general œdema, &c., may result. All the distressing and dangerous symptoms attain alarming proportions during the labour, which is usually "premature." In cases of mitral insufficiency it is not a matter of wonder if the right heart should fail, for, as M. Michel has pointed out, there is a double reason to expect the heart, when pre-existently diseased, to give rise to such serious complication during pregnancy—first, because the total amount of blood is augmented in the pregnant female, and, secondly, because her left ventricle is hypertrophied. In all his cases except one he found the lesion to be restricted almost entirely to the smaller circulation. Clearly in all these instances the safety of the patient turns upon a compensatory increase in the power of the right ventricle. Should this latter prove unequal to the strain thrown upon it, pulmonary circulatory troubles must gradually supervene and the patient's life be rapidly brought into a condition of imminent peril. Not only, however, may difficulties in connexion with the circulation in the lungs be brought about by weakness of the right ventricle, but obstruction may be offered to return of venous blood from the systemic circulation, and congestion of the pelvic and other viscera may ensue. This point is illustrated by the menorrhagia and metrorrhagia which are sometimes present in cases of chronic bronchitis complicated by emphysema and dilatation of the right heart. Quite recently a patient aged about forty-five years was admitted into the New Boynton Ward of St. Mary's Hospital complaining of profuse monthly losses and intermittent metrorrhagia. Chronic bronchitis was present, and the right ventricle was weak and dilated. Absolute rest in bed, with the help of cardiac tonics and treatment adapted to the pulmonary troubles, brought about a rapid improvement in the cardiac condition. It was interesting to note how, as the heart's action improved, cure of the metrorrhagia and menorrhagia was *pari passu* obtained.

It has already been shown that in these instances of right heart failure premature delivery is a fairly frequent event. All the writers on heart disease in connexion with pregnancy call attention to the frequency with which pregnancy is brought to a close in the latter months, when failure of the right heart is present. Budin asks, while it is true that pregnancy has often a disastrous effect upon pre-existing cardiac derangements, is it not equally true that cardiac disorders are, in a certain number of cases, the cause of abortion and premature delivery? M. Peter, again, in his treatise published in 1869, considers that the death of the fœtus in these cases depends upon maternal asphyxia. Duroziez, also, in a paper brought by him before the Medical Society of Paris, declares that the life of the child is considerably endangered by cardiac mischief in the mother. Abortions are common, he says, and frequently the fœtus is born at seven and a half months. Berthiot comes to a similar conclusion, and states that abortions and premature deliveries are common in cases in which cardiac mischief is present. He believes that in 50 per cent. of the cases cardiac affections lead to the premature expulsion of the ovum, and traces the cause to the serious troubles which arise in the circulation consequent on the presence of mischief in the heart. Just as the lungs are the oxygenating apparatus of the mother, so the placenta is the medium through which the fœtal blood gains oxygen; when from some cause or other the placental circulation is impeded, the same symptom is produced in the fœtus as in the adult who has pulmonary congestion—viz., asphyxia. One of the constant effects of cardiac failure, sooner or later, is the accumulation of blood in the venous system, and so is brought about a true stasis, which leads to multiple congestions, which occur in the utero-placental system as well as in other viscera. As a secondary result of the interference with the intra-placental circulation there is soon brought about a marked alteration in the chemical characters of the blood. Now the child is dependent on the mother's blood for oxygen, and if this is withheld asphyxia must ere long ensue and death of the fœtus necessarily result. Berthiot has made an ingenious suggestion to account for those cases in which, though the birth of the child takes place in the seventh or eighth month—i.e., prematurely—yet the infant is born living. He suggests that the disorder of the placental circulation, though insufficient to produce asphyxia in the fœtus, may yet, owing to imperfect nutrition, lead to a fatty degeneration of the placental tissue, and consequently may develop a premature labour. He gives as an example a case of a woman who was suffering from mitral insufficiency and stenosis, and in whom labour came on prematurely. After delivery the placenta was found to be most markedly fatty. The following description is given of the organ. The placental mass is rounded in form; at its edges it is extremely thin and formed of a whitish-grey tissue. In almost its entire extent it has undergone fatty degeneration. This latter change does not exist in scattered islets or foci, but all the cotyledons are more or less invaded—it is, to speak correctly, a diffuse degeneration. In certain parts the whole of the cotyledons are in a state of fatty degeneration; in others, the half, or two-thirds, only have undergone the change; as a result the colour of the tissue is a greyish-white at some points and a rosy-white at others. Two-thirds at least of the whole of the placenta are altered. At no point does there exist a hæmorrhagic focus. Histological examination confirms the naked-eye appearances. In the pinkish parts chorionic villi are found possessing their normal volume and presenting vessels still distended with blood. While in the whitish portions the villi are very small, as if atrophied, they are empty of blood and are infiltrated with small deposits of granular fat; the bloodvessels which run to these white portions are fibroid and very resistant.

In regarding this subject of failure of the right ventricle it is interesting to notice in what a large percentage of recorded cases the mischief occurs in women who have already given birth to several children, or, in other words, who have passed through several confinements without any evidence of heart failure. Of course, it is often exceedingly difficult in cases of valvular disease to know at what exact date the endocarditis began, but in many instances it is fair to assume that the patient was suffering from mitral insufficiency when passing through her former accouchements. The inference must necessarily be that the condition of the muscular walls of the heart is of more importance in any pregnancy than the diseased condition of the valves. In studying the cases of mitral stenosis recorded by Dr. Angus Macdonald we find that a large majority had passed through five or six healthy pregnancies and labours before the pregnancy commenced in which evidence of heart failure occurred, and the same truth is noted if we consult the works of other writers. The observation is of importance, as it suggests that valvular disease in itself is no reason for forbidding marriage, provided the muscular tissue of the heart seems sound; but, on the other hand, it does give us a warning that a patient with valvular disease should be advised to content herself with three or four pregnancies at

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the most, and should not run the risk of weakening her heart-walls by exposing them "repeatedly" to the strain of child-bearing.

3.—Failure due to Fatty Degeneration.

In dealing with fatty degeneration of the muscular tissue of the heart as a cause of cardiac failure in the latter weeks of pregnancy I must own that we have to deal less with the region of clinical experience and have to rely more on hypothesis, or, rather, theoretical probability. Still, there is a certain amount of post-mortem evidence, combined with the belief of skilled observers, to support our contentions. Porak, in his thesis upon the Mutual Influence of Pregnancy and Diseases of the Heart, calls attention to the fact that not infrequently at the necropsies of women who have died from cardiac troubles associated with pregnancy the heart is found to be greyish, soft, and flabby, and regrets that in these cases the presence of fatty degeneration has not been more often demonstrated by microscopical observation. He asserts that examples of fatty degeneration of the heart, recorded as having been observed during labour, are not rare, and believes it to be the cause of sudden death. Ollivier, in his memoir published in the *Archives de Médécine* (1873), says that he has often known this degeneration to exist in women recently delivered. Virchow[2] states that it is not rare to find this fatty degeneration pushed to such a point that one is tempted to ask whether it is not produced by special conditions, such as occur in poisoning by phosphorus. Cohnstein, in making necropsies of twenty women who had died during or shortly after labour, found distinct fatty degeneration of the heart muscle in three of these cases. Unfortunately, as Porak observes, in the necropsies of women dying during pregnancy or labour the heart too often escapes observation, and the pathologist is content to record some alteration of colour or consistency without obtaining definite proof of the existence of fatty degeneration. It is not, however, with cases of coarse, advanced, fatty heart that we need concern ourselves at present; cases are quoted by Moynier, Churchill, Mordret, More Madden, Bichat, and many others which have for the moment greater interest for us. Thus Davis,[3] under the heading of "Labour complicated with Dangerous Fainting," narrates a case of a poor woman, a patient of the Royal Maternity Charity, who, after having been six or eight hours in labour, died suddenly in the effort of micturating. Up to this time she was in good health and was not at all exhausted by the labour. At the post-mortem examination no departure from the natural or healthy condition of the heart or of any of the great vessels was found, or, in other words, there was no naked-eye appearance sufficient to account for death. Dr. More Madden,[4] writing on Sudden Death after Parturition, says: "In some cases no cause whatever was discovered by pathologists who sought to investigate the reason of the fatal event." Dr. Chisholm[5] relates a case of arm presentation in which he turned and delivered easily; there was no more difficulty or hæmorrhage than usual, and yet seven days later, when sitting up in bed after having taken her breakfast as usual, the patient was seized with a pain in the back which made her scream out; shortly afterwards she fell back fainting, and, having made an imperfect rally from this, soon fainted again and expired. A post-mortem examination threw no light upon the cause of death; there were no signs of asphyxia in the lungs and no traces of disease anywhere; but the heart was rather softer and paler than usual and uncontracted, with clots in all its cavities. Again, Mr. Denman narrates a case of a patient who made some slight exertion soon after delivery; she fell back and died immediately. At the necropsy nothing morbid was found—the heart was flaccid, somewhat enlarged, and empty of blood. In another case related by Mr. Merriman fainting occurred several times, followed by recovery, but at last in one of the syncopal attacks the patient died. Numbers of similar cases are quoted by McClintock, Danyan, Dubois, Moreau, and Baudelocque; but I need not weary you with further examples. In all of them the history is very similar; there is fainting, recurring either shortly before, during, or at a variable time after delivery; the fainting may or may not depend on some muscular exertion or other cause embarrassing the heart; and in one of these faints the patient dies. A post-mortem examination is made and nothing amiss is discovered, or, at the most, the heart is found to be pale, flaccid, and empty or distended with blood. I fail to find any minute description of the microscopical appearances of the muscular structure of the heart, and this is greatly to be regretted, as it would be invaluable in weighing the probabilities of the cause of death.

It will be interesting, before proceeding further, to note some of the causes of death assigned by various writers to these cases. Dr. Churchill, in his work on Midwifery, asks: "What is the condition which gives rise to this fatal syncope?" and says: "We know little or nothing." It does not depend upon hæmorrhage or the shock of labour or fear, for the distance of time from the labour in many cases shows that from such effects, if they existed, the patient must have recovered; they appear, in fact, to be cases of *cardiac paralysis*. Modret, in trying to find an explanation for the cases in question, inquires: "Has an inappreciable molecular change in the composition of the nerves come on — a sort of animal isomorphism which has changed the arrangement of their elements, and in virtue of which they have become unfit for the fulfilment of their functions? Or has the mind, oppressed under the weight of a powerful emotion, ceased its functions without any change having taken place in the organs which it brings directly into play?" Then another cause has been formulated by Chevallier, Morgagni, and Christison, and dignified with the name of "idiopathic asphyxia." It is somewhat difficult to know what the originators of this term wished to imply by it. If they employed the term "asphyxia" in its conventional sense and meant to attribute death to non-aeration of the blood, owing to some fault in the working of the lungs, then neither by symptoms nor by post-mortem evidence is their explanation warranted. If, on the other hand, they were speaking as purists and understood by "asphyxia" simply absence of pulse, then the term "idiopathic asphyxia" is only another expression for syncope. Dr. Warren of Boston propounds the hypothesis that the blood remains in the capillary system from inertia of that system or from excessive activity of the heart. Owing to the fact that in a certain number of cases sudden death has taken place after the patient has indulged in a hearty meal or after she has taken indigestible substances, some writers have put down these cases of sudden death to the embarrassing action of a distended stomach on the heart. So also strong moral impressions, fear, joy, shame, sinister presentiments of ill, shock, depression, cold, &c., have all been brought forward at various times to explain the unfortunate ending. I do not for one moment wish to speak lightly of these explanations or deny their baneful effect. I do not in the least doubt their efficacy in determining the fatal issue; but it is well that they should be held in their proper place as secondary causes—as the last straws which break, so to speak, the patient's back—and not be regarded as prime factors, to the exclusion of other and more important considerations. No one will, I think, deny that every now and then pregnancy has a most harmful influence on the heart. A woman lately under my care suffered for months after her second pregnancy with cardiac troubles; palpitation, breathlessness, faintness, and distress on slight exertion were most marked, and only disappeared after a year or more of treatment and rest. In another case the patient has since her first confinement had an irregular and intermittent pulse, while her general condition has been one of decidedly enfeebled health. Dr. Ollivier believes that the formative stimulus which causes the hypertrophy of the left ventricle may overstep the margin and give rise to myocarditis or fatty degeneration. I should object to this last hypothesis, and rather urge that during the process of *cardiac involution*, which should follow delivery, fatty metamorphosis is established, and according to the date and degree of this latter so is the danger incurred. If we recognise the facts that normal cardiac hypertrophy does accompany pregnancy, and that after pregnancy the heart does normally return to its former condition, and if we allow that the latter is due to a process of retrograde fatty metamorphosis, then we shall have no difficulty in seeing that a very slight deviation from the process exposes the patient to considerable risk, and that in the consideration of this risk we find a scientific explanation of many cases of sudden death otherwise unexplainable.

The course of every process, physiological or morbid, constantly presents considerable deviations from the normal track, and so we should expect to find here. The process of cardiac involution may set in prematurely before delivery

[2] Sitzung der Berliner Geburtshülflichen Gesellschaft, 1870.
[3] Obstetrical Medicine, vol. ii., p. 1023.
[4] American Journal of Obstetrics, August, 1891.
[5] Churchill's Midwifery, p. 629.

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is accomplished, and weaken the heart before the strain of labour has been encountered: it may go on to an excessive amount, though occurring at a normal time, and leave the patient exposed to the risks of fatal syncope on slight exertion; it may, though normal in time and amount, yet be accomplished with undue rapidity, and thus leave the heart temporarily at a disadvantage and unequal to its functions. If once we recognise cardiac enfeeblement consequent on the process of fatty metamorphosis as the primary lesion it is easy to understand how undue muscular strain, sudden emotion, flatulence, or depressing causes may embarrass the already weakened organ and bring about a fatal result.

II.—HEART FAILURE DURING PARTURITION.

In considering the subject of heart failure during the act of delivery we may say at once that primary heart failure during this period is rare. Of course, if labour comes on prematurely in any patient in whom the heart has already, during the latter part of pregnancy, shown signs of incompetency the mischief will be greatly increased or even rendered fatal by the strain of parturition, but it is the exception to find marked instances of the heart showing distinct evidence of incompetency for the first time during the progress of labour. On the other hand, as we shall see later, it is quite common to meet with cases in which the strain of parturition seems to have been the determining factor in producing a dangerous condition of cardiac weakness. The following cases, however, show that a heart which has been quite equal to its work during the whole period of pregnancy may not prove equal to the extra pressure thrown upon it during the stages of labour.

CASE 1.—The patient was a delicate-looking married woman aged about twenty-seven. Her first confinement was in all respects normal. The history of this, her second, accouchement is as follows. She had enjoyed fair health through the present pregnancy, but had led a quiet life, as she had not felt sufficiently strong to stand much fatigue. On the morning of Sept. 21st, while still three weeks from full term, her waters broke, and on the morning of the 22nd pains began sharply at 7 A.M. Soon after sharp labour pains had become established she had a fainting attack, and this had been repeated at intervals up to 11 A.M. The head slowly advanced until the vertex was almost resting on the perineum. By this time, however, the condition had become rather alarming; fainting fit followed fainting fit; the pulse was 120, weak, intermittent, and irregular; pain was complained of over the precordial area, and the respiration was shallow and hurried. Forceps were rapidly applied, the head was delivered, and the labour terminated. Absolute rest in the recumbent position was insisted upon, and brandy freely exhibited. In a few days the pulse-rate had sunk to 90, and the heart rhythm had again become regular. It was interesting to note that heart failure began in this case during the second stage of labour, and became more and more marked as this stage advanced. As the fainting attacks were becoming more and more pronounced it is only too probable that death would have ensued but for the timely relief afforded by the use of the forceps.

CASE 2.—A young married woman aged twenty-six, pregnant for the first time, was a patient of the maternity department, St. Mary's Hospital. All through her pregnancy she enjoyed very good health and went her full time before the onset of labour commenced. There was nothing specially worthy of note in the progress of the first stage, but in the second stage, when the head was coming down on to the pelvic floor, and pains were following each other sharply and at five-minute intervals, the patient became a little faint. At the conclusion of a rather strong pain she raised herself on her elbow, asked for some milk to drink, and then, lying down, again fainted and died. At the necropsy everything seemed normal; but the heart was flaccid and its chambers were full of blood. The muscular tissue of the heart did not appear unhealthy, but on microscopical examination the pathologist stated that there was clear evidence of marked fatty degeneration in the muscular fibres. Here, again, there was no sign of cardiac failure during the course of the pregnancy, but the strain of muscular exertion during the second stage proved too much for a heart already weakened by fatty degeneration.

CASE 3.—This case is of interest in connexion with the administration of chloroform during labour. The patient was a young woman aged twenty-two, a patient of the British Lying-in Hospital. She was a feeble, strumous subject. There were scars under her lower jaw where gland abscesses had broken and cicatrised, and her right hip-joint was ankylosed owing to old tuberculous mischief in the head of the bone. Towards the close of the second stage her pains became so feeble and ineffectual, and her pulse-rate began to rise so markedly, that it was necessary to apply forceps. As she refused to allow this unless chloroform were given, a little of the drug was cautiously administered. I had hardly commenced the administration when the patient's face became cyanosed, the pulse vanished from the wrist, and death was imminent. With the help of artificial respiration and brandy the pulse was kept going, but I never saw a patient nearer death's door. Needless to say, I finished the labour without further use of anæsthetics. Chloroform is generally considered to be so safe in labour that this case is of interest as showing that a heart may be so weak and strained under some conditions that the use of the drug is no longer advisable.

Dr. Angus Macdonald, after narrating a case of mitral stenosis in which signs of cardiac failure or embarrassment were present during labour, says it is worthy of remark how sharply the second stage of labour was defined from the first in so far as seriousness of symptoms was concerned. All went well during the first stage, but apparently, as soon as the additional pressure upon the vascular system called forth by the down-bearing pains became operative, serious symptoms supervened. The pulse became quick and irregular, the patient felt excessively distressed, and had it not been that this stage was short, it is beyond question that the patient's life would have rapidly been in great jeopardy. This case, therefore, illustrates the very great effect of the down-bearing pains in straining the weakened powers of an already enfeebled or diseased heart, and supports to the full my contention that it is not any sudden diminution of arterial pressure, arising, as Spiegelberg suggests, from the removal of the placental circulation, that we have to fear as the cause of sudden death during labour, but rather the presence of the extra pressure arising out of the down-bearing efforts. According to my view the danger from disturbed pressure is passed as soon as the child is expelled, and not only beginning then, as Spiegelberg would have us believe.

A Clinical Lecture

ON

DEMENTIA RESULTING FROM POISONING BY CARBON MONOXIDE.

Delivered at the Glasgow Royal Infirmary on June 20th, 1895,

BY ALEXANDER SCOTT, M.D. GLASG.,

ASSISTANT PHYSICIAN TO THE INFIRMARY; CERTIFYING FACTORY SURGEON, TOLLCROSS, ETC.

GENTLEMEN,—This morning I have to lecture to you on the case of a patient aged forty-one years who has been under our care for the last thirteen weeks. He suffers from dementia, from a deficiency rather than an aberration of the intellect, resulting from blood poisoning by the inhalation of carbon monoxide. Whether we study this case from a pathological or a physiological point of view it is intensely interesting. Looking at him as he now sits before you, you cannot detect any lack of intelligence, any paralysis, or, indeed, even the most remote sign of idiocy or imbecility. By careful observation you may notice that he sometimes stares at an object, but this, I think, is due to some defect in his range of accommodation, and does not indicate want of thought. About 2 o'clock on the morning of March 20th last I was called to the Clyde Ironworks to attend to this patient, who was said to be dead or dying from suffocation with gas from the ammonia works which are connected with the blast furnaces. This unfortunate man had been found lying in front of one of the flues apparently dead, and had been immediately hauled out, after having been exposed to the noxious vapours for ten minutes. I found him sitting on a chair supported by two men and quite insensible. His face was ghastly pale, his eyes were staring and glassy, his pupils dilated and fixed, the breathing was shallow and quiet, and the pulse moderately strong, but remarkably slow. His whole muscular system was relaxed, and apparently life was

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quietly ebbing away. Any attempt to rouse him was without effect. Having set him in a good current of fresh air, I alternately douched him with cold water and applied to his mouth and nostrils carbonate of ammonia, and at the end of an hour he began to bestir himself and to talk incoherently. At the same time his pulse reached 58 per minute and the respiration became deeper. This seeming improvement did not last long, for soon the patient was attacked with violent clonic convulsions which lasted for about two hours. The mouth was open and drawn to the left side, and the muscles of that side generally were mostly affected. The only premonitory sign of the onset of these convulsions was a slowing of the pulse down to about 50, and, being still of opinion that they were syncopal in character, I continued the resuscitating efforts till the convulsions disappeared and the patient had been safely removed to his home. At this stage I tried to get him to swallow a teaspoonful of brandy, but failed. About 6 A.M., when the condition of the patient appeared to be more hopeful, I left him in charge of my assistant, Dr. James Lang. So far, however, from the effects of the poison disappearing, they returned with alarming severity and with a somewhat different character, for suddenly the patient was affected with tetanic contractions of the muscles, which were so violent that Dr. Lang had to get the assistance of several men to prevent him from doing himself bodily injury. At 10 A.M. I visited the patient and found that, with very short intervals, the extensor muscles of the trunk and the flexors of the limbs—chiefly the arms—were contracted and rigid, the eyes open, the pupils dilated, the bloodvessels of the forehead prominent, the skin bedewed with perspiration, and the pulse rising and falling with the intensity of the spasms. Nothing gave any relief except chloroform, and as soon as its effects had passed off the spasms returned. The patient was once more removed to the open air and oxygen by inhalation administered, but not with any appreciable amount of success. Free action of the bowels by a drop of croton oil was next tried, but with no better result, for the spasms even increased in severity for the next forty-eight hours. At the end of this period it was observed that the intervals of rest were of longer duration, and that during these intervals the patient was in a state of coma. The tetanic contractions gradually became less violent until, on the fourteenth day after the accident, only faint tremors of the flexor muscles were perceptible. Only on rare occasions would the patient allow himself to be fed. Up to this stage the symptoms pointed throughout to asphyxia as the cause, and, according to Dr. Lauder Brunton, the opisthotonic character of the spasms is due to the fact "that, all the muscles being stimulated at once by the action of the venous blood in the motor centres, the stronger overpower the weaker, and the extensor muscles of the back, being more powerful than the flexors, bend the spine backwards."[1] In this connexion it is extremely interesting to note that in every stage of this man's illness there was an entire absence of cyanosis, the pathological significance of which will be explained further on.

In this semi-comatose condition the patient remained for ten days, and we were hopeful that he would speedily recover. But here the drama did not end, for on the fifteenth day after the accident, without any warning, he was attacked with acute mania, and had again to be put under restraint. At this time, you will remember, I was asked to take charge of Dr. Anderson's wards, and for the purpose of obtaining a more careful observation of the case he was admitted to Ward 7 on April 3rd. So violent was he after admission that the services of male attendants had to be procured for twenty-four hours, when he once more relapsed into his former comatose state. For the next eight days he remained *in statu quo*. The following notes were taken:—

"April 13th.—Listlessness disappearing. Patient, on being asked this morning to put out his tongue, complied. Continues to talk incoherently, but the articulation is more distinct. Faint tremors occasionally present.

"17th.—Patient does not look so ghastly or so stupid. He sits up in bed; his eye and body generally very restless, and he seems to take no intelligent notice of his surroundings. When roused and asked if he knows me he appears to be *dreaming* or *trying to think*. I mention my name, and for an instant he brightens up and says, 'Yes, yes,' and then lapses into unconsciousness. Nurse informs me that for the last twenty-four hours his bed has been perfectly dry and clean, his necessities having been anticipated, though the only indication was restlessness.

"24th.—To-day he took a biscuit in his hand and ate it.

"May 22nd.—The lucid intervals are occurring more frequently and they last longer. To-day he repeated the names of the months of the year in one sustained effort.

"June 5th.—Up till this date he was fed by the nurse. He now sits at table and attends to his own wants.

"8th.—While at dinner and during a lucid interval he rose from the table and said he must go home, but when reasoned with and advised to put on his boots he quietly resumed his seat. This interval occupied about three minutes.

"19th.—One lucid interval lasted fully forty minutes, during which patient talked rationally and coherently."

Temperature.—The temperature has all along been normal except on one occasion, when it reached 104° F., and was due to constipation.

Pulse.—Owing to the tremors a careful examination of the pulse could not be made, but about three weeks after admission, when the agitated state of the muscles had partially subsided, sphygmographic tracings were obtained by our resident physician, Dr. Crawford Robertson.

The tracings exhibited the slowness of the heart's action, the small volume of the pulse, and the moderately high arterial tension.

Reflexes.—As might be expected, the reflexes were at times pronounced and exaggerated, while at others they were entirely absent.

Urine.—For the first two or three weeks it was quite impossible to make a careful examination of the urine. At first it was scanty. It contained neither albumin nor sugar, but the quantity of urea varied from nearly eleven grains down to two and a half grains per ounce. At the present time it is quite normal in every way.

We come now to consider the antecedent brain disorder on which this dementia depends, and, as I have already indicated, the chief agent is poisoning by carbon monoxide; but in case I may be accused of squaring my proofs to my conclusions instead of confining my conclusions to my proofs I proceed to examine the analysis of the gas that was inhaled by this patient. It is known as "clear gas" from ammonia works and consists of—

	Per cent.
CO_2	6·55
CO	25·57
H	4·80
CH_4	5·57
O	0·52
N	56·99
	100·00

When examining the flue from which this gas passed out in large volume it appeared to me to possess no particular odour, and this explains why no exertion is made to escape by the person exposed where it would require but slight efforts on his part to do so. It gave no warning of its presence, and, therefore, it destroys life in a most insidious manner. Looking, again, at the analysis of this gas, it is obviously difficult to differentiate between the effects of its various constituents; but if we exempt marsh gas (CH_4), which may be respired to a great extent without apparent injury, and nitrogen, which exhibits no positive poisonous properties, there remain only carbonic acid (CO_2) and carbon monoxide (CO) to be reckoned with. In disposing of carbonic acid we have to bear in mind that even in a diluted state it penetrates into the lungs, is absorbed and circulated with the blood, and thereby interferes with the "internal respiration," and, according to Dr. Lauder Brunton,[2] "the processes of oxidation are interfered with and their functions lessened or destroyed." But 6·55 per cent. of carbonic acid is not a fatal proportion; it requires 10 per cent., and that, too, in still air, to destroy life. Berzelius[3] even recommended a 5 per cent. solution in the treatment of phthisis pulmonalis. To carbon monoxide, then, we must attribute the main danger, and this danger is largely increased by its combination with carbonic acid. The one gas acts as a powerful adjuvant to the other. Bernard,[4] when writing on the poisonous effects of charcoal vapour, clearly proved that so small a volume as ½ per cent. of carbon monoxide is fatal to life when mixed with even less than 5 per

[1] Pharmacology, Therapeutics, and Materia Medica, third edition, 189.

[2] Ibid., p. 584. [3] Traité de Chimie, tome ii., p. 83. [4] Les Substances Toxiques, 1857, p. 135.

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cent. of carbonic acid; and Guerard[5] declared that a mixture was fatal when the same quantity of these gases respired alone was perfectly innocuous. Not only so, but the symptoms in this case agree, in the main, with those produced by carbon monoxide and are due to the action of that gas upon the hæmoglobin of the blood, the union of which forms a compound of interesting and characteristic attributes. Now, you will remember that hæmoglobin is known as the oxygen carrier, its most important property being its affinity for that gas; but, while it readily combines with oxygen, it just as readily parts with it to the tissues—indeed, so unstable is the combination that it has been roughly compared to a mere solution of the gas in a fluid. On the other hand, the combination of hæmoglobin with carbon-monoxide is most stable, forming carboxyhæmoglobin, which compound offers such strong resistance to displacement by oxygen that it was at one time considered absolutely incapable of dissolution; and, therefore, we need not be surprised at our lack of success in the treatment of our patient either by artificial respiration or the inhalation of oxygen. As having a distinct pathological bearing on this case let me also remind you that hæmoglobin readily crystallises in elongated prisms, but that it affords a most remarkable exception to the law of diffusion inasmuch as it will not diffuse through membrane *as such* without decomposition. The most reliable test for presence of carboxyhæmoglobin in the blood is that afforded by the spectroscope as expounded by Professor Lehman.[6] In the spectroscope, carboxyhæmoglobin exhibits two absorption bands which are very similar to those of ordinary oxyhæmoglobin, but the results may be differentiated in the following manner. If to a solution of oxyhæmoglobin we add two drops of yellow ammonium sulphide or of Stokes's solution (ferrous ammonium tartrate) the two bands will disappear and in their place will be produced a broad band of reduced hæmoglobin; whereas if we apply the same reagent to a solution of carboxyhæmoglobin both bands will remain, because this compound resists reduction. For the verification of this test I am indebted to my friend, Professor Oliver of Newcastle, who has all along taken a very great interest in the progress of our case.

The literature on the subject and the reports of cases, so far as I have been able to discover, are extremely scanty. Dr. Siegfried Stockes[7] of Lucerne published a case in which a patient, after exposure to carbon monoxide, remained in a seemingly hopeless state for forty-eight hours and only revived when transfusion was resorted to. About three days thereafter a very gradual improvement set in; but extreme prostration and mental weakness ensued, and the patient only fully recovered two months later. Mr. James Hamilton, manager of Coltness Ironworks, at which sulphate of ammonia is manufactured on the same principle, has kindly furnished me with notes of a strikingly similar case which was carefully observed by Dr. John Millar. The patient, a young man aged twenty, was engaged in repairing an exhauster at the ammonia works when he was overcome by the gas and fell unconscious to the bottom of the exhauster. An interval of fifty-two minutes elapsed before he could be rescued. Energetic resuscitating efforts were continued by Dr. Millar for fully one hour, and ether was injected twice before the heart's action was perceptible. The patient was maniacal for three days and quite insensible for eight days. His vision was imperfect for seventeen days; and, indeed, he could not recognise the time of day for many months, during which period he was quite unable in any way to attend to his own necessities. After a lapse of two years his health has now become fairly good, but he still remains facile, with a weakly smile, and cannot be trusted with any responsible work. Altogether the analogy between Dr. Millar's case and the one we are now considering is very interesting and instructive.

Treatment.—During the early stage when collapse is imminent a free current of fresh air, the inhalation of oxygen, together with stimulation by the inhalation of carbonate of ammonia or the injection of ether, are naturally indicated. Bearing in mind, however, that carboxyhæmoglobin owing to its stability simply circulates in the blood without performing the function of respiration, and also that, as yet, no agent has been discovered which will dissolve this compound, it follows that the only rational line of treatment points to venesection and transfusion.

[5] Annales d'Hygiène, 1843, 2. 55.
[6] Method of Practical Hygiene, p. 238.
[7] Correspondenzblatt für Schweizer Aerzte, No. 8, 1888, p. 258.

Deaths due to this noxious vapour are becoming frequent (in a neighbouring works there have been no fewer than six), while even in the mildest cases early and complete recovery is extremely rare. For prevention I would suggest (1) that there should be a free current of air around the flues, and (2) that every attendant should wear a respirator.

I will now recapitulate some of the outstanding features of the case. 1. The accumulative action of this gas. The effects continued to increase for fourteen days after the patient had ceased to breathe the poison. First we had complete relaxation of the muscular system with shallow breathing and slow pulse for an hour, after which we had violent convulsions for three hours, which were again succeeded by rigid tetanic spasms with mania until the fifteenth day. 2. The asphyxial nature of the symptoms with persistent absence of cyanosis. This condition is explained by the fact that the carboxyhæmoglobin does not part with its oxygen, and consequently the bright cherry colour of the blood, circulating but not oxygenating, accounts for the pallor, aided doubtless by contracted arteries. Bernard also explains this as due to carbon monoxide paralysing the blood cells and thus rendering them incapable of taking up oxygen, and hence the bright arterial blood is prevented from becoming venous. 3. The length of time during which the brain retains, and is affected by, the poison after the other organs of the body have seemingly eliminated it. 4. The periodicity of the recurrence of the more prominent symptoms. This was noticed in the behaviour of the muscles from the appearance of the convulsions down to that of the indistinct tremors; in the temporary presence and absence of the reflexes; and especially in his lucid intervals, during which the brain is supplied with pure blood. If I were to ask the patient a question and if one of these waves of consciousness were present he would reply intelligently, but immediately the lucid interval passed off his mind would be quite blank. In the history of the case I pointed out that the first ray of consciousness was observed when he was asked to put out his tongue and he readily complied, but no persuasion could make him repeat the act. The next was when he endeavoured—weakly, indeed—to attend to his own necessities. Then he could hold a biscuit in his hand and eat it. Shortly afterwards he at times would recognise me and could tell where I lived. Then he could repeat the names of the months of the year, and now he recognises that this is not his home. When first observed the lucid intervals were only momentary, and the nurse now informs us that yesterday, June 19th, he talked quite intelligently for nearly forty minutes. Hitherto the improvement in the condition of our patient has been very slow, but when you reflect on the pathological condition of the blood you will readily understand why it should be so, for carboxyhæmoglobin will not diffuse through membrane without decomposition, and as yet no solvent of this compound has been discovered. It follows that its elimination from the system by the ordinary processes of excretion must be remarkably slow. Not only so, but, as malnutrition seems to be the *fons et origo* of insanity generally, I should not be surprised if our patient had yet to be removed to an asylum or home for the treatment of mental diseases. If venesection and transfusion had been resorted to, or, indeed, were they to be resorted to now, the symptoms of dementia in all probability would disappear more rapidly; but in the present state of his health we can only trust to the *vis medicatrix naturæ*.

QUININE AS A PROPHYLACTIC IN AFRICAN FEVERS.

BY GEORGE THIN, M.D. ST. AND.

I HAVE been engaged for some time in collecting evidence which may serve to indicate the best method of using quinine as a prophylactic against malarial fever, and also the amount of reliance which may be placed upon it to prevent attacks in persons who are temporarily exposed to the action of the malarial poison. I am not yet prepared to write fully on the subject, as I hope to do later when the evidence available has become larger; but the presence of an unusual number of Europeans on the West Coast of Africa suggests to me the utility of bringing the matter, without further

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delay, prominently before the notice of medical men in practice in malarial countries, and more particularly in Africa. My attention was first awakened to the subject some years ago by my friend Mr. Davis, Inspector-General of the Royal Navy (retired), who told me that nearly forty years ago he was in medical charge of a small body of sailors who were sent on service up one of the rivers on the West Coast. He caused five grains of quinine to be given to every man daily, and although they were exposed to malarial miasmata of the worst kind for about three weeks every man escaped fever except an officer who declined to take quinine. Valuable evidence of the same kind will be found in the Statistical Report of the Health of the Royal Navy for the year 1856. It is there stated that the *Bloodhound* steamed in March about 200 miles up the Benin river. While in the river and for fourteen days after leaving it from three to six grains of quinine were given to each of the ship's company as a preventive of fever, and although they were exposed to the emanations from the swamps for twenty-seven days only six suffered slightly from fever. Some time afterwards they were again exposed to miasmata in the Bonny, New Calabar, and Sherbro rivers, the last one of the most dangerous rivers for Europeans in the whole station, but quinine in solution was invariably used as a prophylactic and with good effect, as only one case occurred after the vessel had been for a week on the Sherbro, the patient being the only person who did not take the quinine regularly. Boats from the *Firefly*, manned with white men, were sent up the river Pongas. The men took quinine wine night and morning whilst absent and continued its use for ten days after they returned, and all escaped fever. An officer who slept two nights on shore, and who declined to take quinine as a preventive, was attacked about fourteen days after returning on board. The *Merlin* went up the rivers Bonny, New Calabar, and Brass. The men every morning took half a wineglassful of quinine wine, and this was given to the whole crew for fourteen days after leaving the rivers, in which they remained altogether about twelve days. No sickness of any kind followed the several expeditions into these notoriously unhealthy localities. The report does not state the strength of the quinine wine given, which may account for the following evidence of another kind. The *Scourge*, which was cruising on the coast on one occasion, entered Old Calabar river, and during her stay there quinine wine was issued to every person on board and no fever followed, but when at anchor off Lagos during part of the time six persons were employed inside the bar assisting to repair the *Minx*, and although, with one exception, they took quinine daily, yet after they returned on board each had an attack of fever. Four of these cases were mild and two severe. The subject of one of the latter was the person who neglected to take the quinine wine. A friend of my own, who is at present living on the Sierra Leone coast, and who had suffered from malarial fever during a previous residence, returned there last summer. From the time of his arrival he had taken five grains of quinine daily, and when I last heard from him, several months after his arrival, he had remained free from fever. A young engineer, who is at present working in a very malarial district on the East Coast of Africa, consulted me before he left England as to the best means of escaping fever while in the fever zone. I recommended him amongst other things to take five grains of quinine daily. After reaching the malarial district he took this dose regularly and has remained in excellent health for several months without a trace of fever, while the two companions who were associated with him have been so repeatedly prostrated with fever as to be most of the time incapacitated for work.

I could quote a similar and striking experience in India. We now know, of course, how quinine acts as a prophylactic against fever, and why it must be a prophylactic. The young naked spore of the malarial parasite is extremely susceptible to the destructive action of a minute proportion of quinine in the blood, and the question to be solved, and which can only be solved by an accumulation of facts, is, What amount of quinine can the average man take daily for a certain period without prejudice to his health? For it is reasonable to suppose that the greater the proportion of quinine in the blood the less chance of the malarial spore being able to live in it. The administration of even small doses of quinine over a certain period acts injuriously on the red corpuscles, but clinical experience shows that in most cases the injurious effect of quinine, if not continued over too long a time, may be practically ignored. It seems quite certain that most people can take five grains of quinine daily over a very considerable period without any appreciably injurious effect. and if it should turn out that a dose of five grains is reliable as a prophylactic the physician would not hesitate to recommend it to all persons who have to reside for a time in malaria-stricken districts. For those whose stay in such districts is brief, and where the malarial parasite is virulent, this dose might be increased. I have been in the habit of recommending the prophylactic dose to be begun two days before the person is exposed to the action of malaria and to be continued for ten days after he leaves the district. I prefer the solution of the powder to other forms.

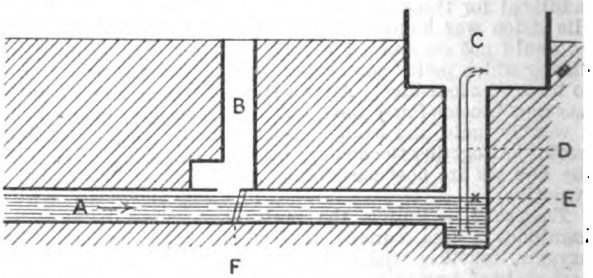
As the future development of our intercourse with the malarial districts of Africa is sure to make greater and greater demands on our population, it becomes a matter of almost national importance to lessen the amount of the blood-tax which our race has to pay. There are, of course, in Africa, as in the other continents, several varieties of the parasite of malaria, but the only one with which I have yet had an opportunity of becoming familiar is one found in the blood and in the tissues of patients suffering from the severe fevers that occur on the Sierra Leone coast. The extensive changes that it produces in the tissues and the heavy loading of the white corpuscles with pigment show it to be a parasite which acts with unusual activity and virulence (which, of course, only bears out what is known from the clinical symptoms), and this explains why such enormous doses of quinine are necessary to kill it. All the more important, therefore, is it to use quinine as a prophylactic, and to prevent a parasite which acts with such swiftness and multiplies with such rapidity from settling in the blood. The long-lasting effects produced by it when it once fairly gains a footing are so serious that the comparatively slight deleterious action of quinine on the blood ought not to stand in the way of its regular and free use as a prophylactic. It is to be hoped that experiences of the dose which is found to be efficient for this purpose will be freely recorded by medical men in Africa and elsewhere who have ample opportunities for observation.

Queen Anne-street, W.

POISONING BY GAS IN SEWERS.

BY JOHN SCOTT HALDANE, M.D. EDIN.,
LECTURER IN PHYSIOLOGY, UNIVERSITY OF OXFORD, AND GROCERS' COMPANY RESEARCH SCHOLAR.

ON July 1st, 1895, five men were killed in an accident at East Ham Sewage Works. They were overcome, apparently by gas, while working in a manhole or well leading to a large sewer. I was at the time investigating the causes of death in cases of suffocation by gas in wells, and I went to East Ham to ascertain, if possible, what was in this instance the nature and source of the suffocative gas. The scene of the accident was a wide manhole, 5 ft. by 3 ft. 4 in. across, and 27 ft. deep, leading down to the main sewer (see figure)



A, Main sewer; B, Manhole; C, Engine house; D, Intake of pumps; E, Pump-well; F, Screen.

near where the sewage enters the pump well. The main sewer is 680 ft. long, 4½ ft. high, and 3 ft. wide. It is egg-shaped, comparatively new, and provided with ventilating shafts, the first being distant 148 ft. from the manhole. This sewer is usually more or less full of sewage, as it is below the level of the branch sewers draining the district, which are always running free. The machinery

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provided is sufficiently powerful to allow of the sewage being continuously pumped up as rapidly as it flows into the main sewer. The manhole itself is solidly and cleanly built, and is always kept open at the top. It affords direct access to a double screen (shown in figure) placed in the sewer for the purpose of arresting solid objects which might clog the pumps. The pump-well is closed above, but it is ventilated through gratings situated behind the engine-house.

The circumstances of the accident were, briefly, as follows. One of the men had gone down the ladder as usual to clear the accumulation from the front of the screen. Before reaching the bottom he said he felt ill and began to return; but when almost at the surface he was overpowered, and fell off the ladder into the sewage, which, as shown in the figure, seems to have been about 4 ft. deep at the time. (It was a rule that the men were not to go down unless the top of the sewer was free, so as to allow of the ventilation being in operation. The ventilating shafts are connected with the crown of the sewer.) A companion who was assisting at the surface immediately summoned help, and with rash but splendid courage three men descended, one after the other, to the rescue. They were, however, all overpowered and fell off the ladder to the bottom. The engineer in charge of the pumping-station was then called from his office, and seeing one of the men lying on the top of the screen at once descended to his assistance, but fell off the ladder and was drowned. A bucketful of live coals was now brought from the engine-house and lowered into the manhole. After it had been withdrawn a man went down with a rope round his body, but had to be drawn up again. Another man, also with a rope round him, next went down, and was able to keep his footing. He succeeded in getting a rope round one of the men who, having fallen on the top of the screens, had not been drowned and was still breathing, though quite insensible. The poisonous gas seemed now to have lessened in amount, and the bodies of the other men were soon recovered from the water. The rescued man was in a comatose condition when brought up and never recovered consciousness. He died in the West Ham Hospital almost eighteen hours later. Mr. Blake, resident medical officer to the hospital, kindly furnished me with information as to his symptoms. When he was brought in his respiration was slow and stertorous. There was no corneal reflex. Distinct cyanosis was absent. There were constantly recurring clonic spasms of the arms and legs; these spasms were repeated about every half minute, and rendered it very difficult to carry out artificial respiration, which was employed for the first two hours. The eyes were frequently directed towards one side. The temperature rose to 102° F. some time after his admission. No symptoms of bronchitis were noticed. There was a discharge from the eyes indicative of conjunctivitis. Urine was passed involuntarily, and none could be collected. Inhalation of oxygen was tried, but without effect. Three hours before death the spasms ceased, and symptoms of œdema of the lungs appeared, and gradually increased. At a post-mortem examination conducted by Mr. Blake, Mr. J. H. Horton, and myself three days later, no fresh naked-eye changes of any kind were discovered in the organs, with the exception of the lungs, which were more or less œdematous. The blood was normal in appearance, and there were no hæmorrhages or other gross changes in the brain or spinal cord, which were both examined. Unfortunately, decomposition was already far advanced. Dr. Washbourn and Mr. Horton made a microscopic examination of parts of nearly all the organs. They found patches of broncho-pneumonia in the lungs, but no distinctly recognisable fresh changes elsewhere. The brain, spinal cord, liver, kidneys, and heart were all examined.[1] The body of one of the other men was also examined by Dr. Smith. The appearances were such as to suggest that death was due to drowning. I examined a specimen of the blood, and ascertained that no carbonic oxide was present. There were no signs of any abnormality in the hæmoglobin. Four men had thus been drowned while stupefied by the gas, while the fifth had apparently been killed by the gas alone.

The cause of the accident remained very obscure. The manhole had been regularly used twice daily for three years and a half as a means of access to the screen, and no one seems to have suspected the possible presence of poisonous gas, yet there could be no doubt that gas of some kind had overpowered the men. Three days after the accident I obtained a specimen of the air from the bottom of the shaft, and a large sample of fluid taken from the surface of the sewage. At the time of my visit a candle burned perfectly well at the bottom of the shaft; filter paper freshly moistened with lead acetate solution was not sensibly blackened within three minutes, and a mouse which I lowered into the well before descending myself showed no signs of uneasiness. The air in the manhole smelt very strongly of decomposing sewage, but I had frequently been in sewers in which there was an equally unpleasant smell. I was unable to detect in myself any unusual symptoms. A careful analysis of the sample of air gave the following result: oxygen, 20·84 per cent.; carbonic acid, 0·10 per cent.; and nitrogen and argon, 79·06 per cent. As with the same gas-burette fresh air gave 20·91 per cent. of oxygen it follows that the oxygen in the sample was diminished by 0·07 per cent., and the carbonic acid increased by the same amount. Thus, according to the analysis, the air differed very little from normal air, and was only slightly less pure than that of average well-ventilated sewers such as those investigated by the late Professor Carnelly and myself.[2] The slight vitiation detected by analysis would have required to be more than a hundred times as great to produce any serious action on a man. The result of the examination of the air thus threw no light on the cause of the accident, and was, at any rate, unfavourable to the theory that there had been any dangerous deficiency of oxygen or excess of carbonic acid in the air. The live coals lowered into the manhole at the time of the occurrence burned perfectly brightly, and this fact pointed strongly in the same direction. Flames are extinguished when the proportion of oxygen in the air is diminished by 3 or 4 per cent., though this diminution causes no inconvenience to a man. It is true that if pure carbonic acid be added to air a flame will still burn in it until the atmosphere is such as to be capable of causing extreme respiratory distress and other serious symptoms in a man breathing it; but, as explained more fully below, such an admixture of pure carbonic acid would not occur in a sewer.

The examination of the sewage, which was undertaken within a few hours, at once showed what had almost certainly happened. Having filled a large bottle about a quarter full of the sewage and shaken it up I lowered a mouse into the upper part of the bottle. The effect on the mouse of the vitiated air was almost instantaneous. It first became uneasy and then showed signs of becoming stupefied. The respiration at the same time became very much less frequent, diminishing from about 140 to 20 a minute. After a minute or two the mouse remained lying on its side and could not be roused. After twenty minutes it was still alive and seemed no worse. When taken out it gradually recovered completely. These symptoms, and particularly the marked slowing of the respirations, pointed to a poisonous gas with an irritative action on the air-passages. The only gas of the kind which could be present was sulphuretted hydrogen, and I found that moist lead paper, when introduced into the air of the bottle, became markedly discoloured in a few seconds. The smell of the sulphuretted hydrogen could also be more or less distinctly perceived, along with that of other putrefaction products. There could thus be no doubt as to its presence. Proof was still required, however, that the sulphuretted hydrogen was actually the cause of the symptoms. On adding a little caustic soda to a portion of the sewage and shaking the bottle up I found that the air had completely lost its poisonous properties and at the same time its action on lead paper. The sulphuretted hydrogen had been absorbed. The smell of the sewage, though somewhat altered in character, remained as offensive as before. On now adding a slight excess of sulphuric acid and shaking the air again produced the above described effects on a mouse and blackened lead paper. Lead acetate had the same effect as caustic soda in removing the poisonous property of the air along with the sulphuretted hydrogen. It was thus evident that the sulphuretted hydrogen and nothing else had rendered the air poisonous. A light introduced into the bottle burned perfectly well in the poisonous air, so that the oxygen percentage was certainly not materially reduced. In order to render the air poisonous it was only necessary to let it stand in the bottle above the sewage for a short time, although shaking hastened the process.

[1] At the inquest on the body of this man the jury returned a verdict censuring the East Ham authorities for not taking greater precautions in connexion with the sewer. The precautions actually taken, however, seem to have been unusually great, so far as I could judge.

[2] Proceedings of the Royal Society, vol. xlii., 1887, p. 501.

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These observations rendered it exceedingly probable that the men had been overpowered by sulphuretted hydrogen given off by the sewage to the air. There was no perceptible wind at the time, and in the warm and dry weather which prevailed, not only would the sewage be concentrated, but the temperature in the manhole and sewer would be below that of the outside air, so that there would be little or no natural ventilation of the manhole by convection currents. When the sewer was nearly full any slight current of air which passed into the manhole along the crown of the sewer would in all probability be contaminated by sulphuretted hydrogen. Hence conditions would exist which might easily render the air of the well poisonous, provided a sufficient amount of free sulphuretted hydrogen were present in the sewage. On inquiry of the police authorities I was informed that silver coins and a silver watch chain taken from the bodies were blackened, which showed that sulphuretted hydrogen was certainly present in the sewage or in the air at the time of the accident.

At a temperature of 15°C., which would be about that of the sewer, one volume of water will dissolve 3·2 volumes of sulphuretted hydrogen. The latter gas is thus about 170 times as soluble in water as air is, or 3·2 times as soluble as carbonic acid. A saturated solution of sulphuretted hydrogen would accordingly (since 0·07 per cent. of the gas in air is a poisonous proportion) be capable of rendering poisonous 4500 times its volume of air. Supposing that the sewage were only 0·2 per cent. saturated with the gas, and that no more was being formed, it would still be capable of rendering poisonous about six times its volume of air. Wherever sulphuretted hydrogen is formed in sewage marsh gas is probably also formed in far greater amount. Were the two gases given off to the air together the mixture would rise and so tend to leave the sewer. As, however, sulphuretted hydrogen is about 100 times as soluble in water as marsh gas the former may be mostly retained in solution and given off by itself later, when it will not tend to rise, as it is slightly heavier than air. Any cause tending to stir up the sewage would greatly favour the giving off of the gas from its solution in water. Now, not only was the sewage in slow motion all along the main East Ham sewer, but just at the bottom of the well where the accident occurred there was considerable motion, arising from the passage of the sewage through and over the partially blocked screen towards the pumps. On looking down the well one could see a constant eddying at the bottom from this cause. It is thus not difficult to understand how sulphuretted hydrogen might have been given off pretty rapidly from the sewage and in sufficient quantities to cause danger if there was only a very slight current of air in the well.

The sewage system of East Ham is a comparatively small one. It might at first sight seem surprising that, in the short time which must be required for sewage to flow from any part of the town to the pumping station, putrefaction could have become sufficiently advanced to cause danger in the sewer. It must be remembered, however, that what enters the sewers is not the comparatively fresh material which is poured down sinks, &c., but a mixture of this with the foul-smelling contents of house traps, and particularly of the grease boxes into which kitchen water passes. In summer the contents of kitchen grease boxes seem frequently to give off quite enough sulphuretted hydrogen to render the air in contact with them poisonous. But for the state of house traps and house drains there would probably be little danger or smell in the air of a new and short set of sewers such as those of East Ham. No amount of engineering skill in the construction and ventilation of sewers can, however, entirely avail against the putrescent material and overpowering odours which commonly issue into a sewer from house drains.

The action of sulphuretted hydrogen on men and animals has recently been carefully reinvestigated by Lehmann.[3] He concludes that about 0·07 per cent. is just sufficient to cause death after an exposure of about an hour or more in the case of various animals, and doubtless also of man. In one of his experiments on man alarming symptoms were produced within a few minutes by an atmosphere containing about 0·05 per cent. The frequently quoted statement on Parent Duchatelet's authority that a man can breathe 3 per cent. of sulphuretted hydrogen for a short time without injury is certainly quite erroneous; 3 per cent. would cause almost instantaneous death. Lehmann found that 0·2 per cent. was sufficient to kill dogs and cats within one and a half minutes. Lehmann's experiments on man brought out clearly and for the first time the symptoms which are produced in men and animals when the proportion of sulphuretted hydrogen is becoming dangerous. The first symptoms are those of irritation of the eyes and respiratory mucous membrane. In consequence of the irritative action on the air passages there is "catching of the breath" and diminished frequency of the respirations. With increasing proportions of the gas, or longer exposure, these symptoms are accompanied by giddiness, loss of consciousness, &c. I found that with about 0·1 per cent. a mouse fell over in an apparently comatose condition, and with marked slowing of the respiration within a few seconds. Death did not, however, occur until after forty-five minutes. Judging by the symptoms of the mouse, and the action of the gas on lead paper, there was in the experiment mentioned above somewhat less than 0·1 per cent. of sulphuretted hydrogen in the air in contact with the sewage in the bottle. On asking the man who was first able to keep down what he could remember of the symptoms produced on himself in the manhole, he told me that the gas affected him at once, before he got to the bottom. It "caught him in the throat" and made him stupid, so that he would have fallen had he not had a rope round him. He was afterwards hoarse, and suffered from headache and a constant feeling of nausea, accompanied by eructations. When I saw him the day after the accident he still seemed dazed, and was suffering much from nausea and retching. He said he felt as if the gas were still inside him. His conjunctivæ were congested and his eyes "felt queer," though he did not notice any smarting of the eyes while he was in the manhole. On the whole his symptoms were clearly those of poisoning by sulphuretted hydrogen. The after-symptoms presented by the man who was rescued appear to have been of the type described by Böhm[4] as produced both by simple deprivation of oxygen and by the action of certain poisons affecting the central nervous system. The conjunctivitis and broncho-pneumonia were very probably due to the local action of the sulphuretted hydrogen. The sewage was neutral in reaction, so that the evolution of sulphuretted hydrogen was not due to acid discharged into the sewer; and there are no manufactories of any kind in the district from which the sewage came. Although the smell in the manhole was very offensive the material in the sewage did not seem to be in a very advanced state of decomposition. The fragments of kitchen refuse, vegetables, lumps of meat, &c., floating in it looked comparatively fresh.

It would seem probable that the sulphuretted hydrogen was formed chiefly or entirely from albuminous material, from which it is very easily split off by the action of bacteria. Part may also have been formed by reduction of the sulphates derived from urine; but with this latter mode of formation the rate of production seems to be exceedingly slow. Albumin contains about 1 or 1½ per cent. of sulphur by weight, and the sewer air could not become dangerous unless more than 0·15 per cent. of sulphuretted hydrogen by volume (corresponding to 0·05 per cent. saturation) were present in the sewage. Hence more than 0·02 per cent. of albumin must have been present. If the ordinary quantity of about thirty gallons of water per day per head of population had been passing into the sewers, such a percentage of albumin could not possibly have been derived from excreta. At the time of the accident, however, the water-supply was diminished on account of the drought, and it was estimated that only about eighteen gallons per day were passing into the sewers. Even with this diminished supply it is probable that much the greater part of the albumin was derived from kitchen refuse. The appearance of the sewage certainly seemed to indicate that a very great amount of unused food material passed into the sewers. Had the water-supply of East Ham been normal the accident might probably not have occurred, as the sulphuretted hydrogen would have been more dilute, and from the symptoms of the men and the mouse it seemed probable that a slight dilution of the gas would be sufficient to render it harmless. The sewage ordinarily met with in well-built sewers does not contain sulphuretted hydrogen, nor does ordinary sewer air blacken lead paper. How, then, was sulphuretted hydrogen present in this case? It seemed probable that so long as sewage is sufficiently aerated there is no evolution of sulphuretted hydrogen, the bacteria simply oxidising the sulphur

[3] Archiv für Hygiene, vol. xiv., 1892, p. 135.

[4] Archiv für Experimentale Pathologie, vol. viii., 1878, p. 68.

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of the albumin to sulphates, and the carbon and hydrogen to carbonic acid and water, in the same manner as do the tissues themselves in the case of a living animal. In the sewer in question, however, the sewage was not only in a concentrated state at the time, but there was a deep layer of partially stagnating liquid, which was already thoroughly infected by bacteria from house traps, &c., as explained above. In this layer the free oxygen would be rapidly used up, and there would thus be the necessary conditions for the formation of sulphuretted hydrogen, together with marsh-gas, hydrogen, indol, skatol, and various other products of imperfect oxidation or reduction. With a view to testing this hypothesis I had made one or two preliminary experiments with sewage, when I found that the matter had already been investigated, though with a quite different object, by Hoppe Seyler.[5] His experiments with albuminous solutions proved beyond doubt that so long as there is free oxygen in a decomposing solution none of the ordinary evil-smelling products of putrefaction (such as sulphuretted hydrogen, &c.) are formed. The only gaseous or volatile decomposition products which he could discover were carbonic acid, ammonia, and water. The rate of decomposition and development of bacteria was far greater when abundance of free oxygen was supplied. Although in the case of the East Ham accident the poisonous constituent in the sewer-air was sulphuretted hydrogen, yet it does not follow that cases of acute gas poisoning in sewers are always due to the same cause. After examining the evidence in several recent cases, however, I am inclined to think that they usually are. On May 4th, 1894, two men were knocked down by gas and drowned in a sewer under the control of the Lambeth Vestry. The case was very thoroughly investigated at the inquest, and, through the kindness of the engineer to the London County Council, I have been placed in possession of the whole of the evidence brought forward. It appeared that three men who had been sent in to measure a sewer were suddenly overcome by gas and fell into the water. Two were drowned, but the third regained consciousness, and succeeded with great difficulty in escaping. The sewer was an old and filthy one, containing much deposit; and it appeared that a quantity of warm water containing about 1 per cent. of sulphuric acid was daily discharged into it from an oil refinery. The man who escaped did not notice the smell of rotten eggs, but observed steam coming down the sewer, and then suddenly experienced a choking sensation and lost consciousness. His silver watch and chain were blackened. A man who afterwards attempted to rescue the other men noticed a smell like that of rotten eggs. He also experienced the choking sensation, became giddy, and had to return. Another man, who went in later, said that the gas made his throat feel dry and his eyes smart. He described the smell as oily. A sample of sewage taken at the same place next day was analysed by Mr. Muter, who found in it 0·13 per cent. of free sulphuric acid and 10 per cent. by volume of sulphuretted hydrogen. Dr. Stevenson, who gave evidence at the inquest, expressed the opinion that the accident was due to dilute sulphuric acid coming in contact with sulphides present in the sewage and thus liberating sulphuretted hydrogen. An accident in the Fleet-lane sewer in 1861 was attributed by Letheby to a similar cause,[6] although the presence of acid was not proved.

As regards the failure of some of the men to recognise the specific smell of sulphuretted hydrogen, it must be remembered that when it is present in relatively large quantities the smell is not nearly so characteristic. The sense of smell for sulphuretted hydrogen seems indeed to become paralysed, just as occurs in the case of skatol[7] and other very strongly smelling substances. I have myself met with gas (coming from a heated coal-heap) which at once blackened lead paper, but in which I was quite unable to smell the sulphuretted hydrogen. The smell was quite perceptible, however, when I opened in the fresh air a bottle containing a sample of the same gas.

Another accident, into which a thorough investigation was made by Professor Letts,[8] occurred in a sewer at Belfast on June 29th, 1889, and resulted in the death of several men. In this case also there was much stagnating sewage, and the men were engaged in stirring up the deposit so as to cause it to be carried off by the current. Two or three of them seem to have been somewhat suddenly overcome by gas, which one of them described as having "caught his breath." The lamp was dropped and a panic ensued in the darkness, several of the men falling into the sewage. Professor Letts, who afterwards examined the air of the sewer, found in it from 0·2 to 0·1 per cent. of carbonic acid when the ventilators were open, as at the time of the accident. He also observed that lead paper and silver coins were slightly blackened. As a result of his observations he was inclined to believe that a sudden outburst of gas from a disused pipe might have caused the accident, and that the noxious constituent of this gas was probably carbonic acid. The symptoms of the man, however, when interpreted in the light of our present more exact knowledge of the action of both carbonic acid and sulphuretted hydrogen, seem rather to point to the latter gas. This might probably have been given off from the sewage which the men were engaged in stirring up. It would have required more than 10 per cent. of carbonic acid to produce symptoms at all like those described, and it is very difficult to see where so much carbonic acid could have come from. Two of the men appear to have died from pneumonia brought on by the accident. This pneumonia was attributed to sewage getting into the lungs, but might also have been caused by sulphuretted hydrogen, which has been shown by Lehmann to produce inflammatory changes in the lungs of animals.

From the observations made on the subject in Paris and elsewhere it is well known that sulphuretted hydrogen in poisonous proportions may easily be given off from the very concentrated sewage contained in cesspools. It is often assumed, however, that the same danger cannot arise from the comparatively dilute liquid contained in ordinary sewers unless acid has been allowed to get into them and to come into contact with deposits containing sulphides, as in the case of the Lambeth accident. The East Ham case is important as showing that under favourable conditions in summer the presence of acids or of sewage as concentrated as that of a cesspool is not essential. Besides sulphuretted hydrogen, almost the only gas likely to be present in poisonous proportions in sewer air is the carbonic oxide of coal gas.[9] It is well known that coal gas from leaks in the mains very frequently penetrates into sewers, and occasionally causes explosions. It can usually be recognised by its smell, though this may be absent if the gas has passed through fresh earth, or may be disguised by the smell of sewage. If more than about 5 or 6 per cent. be present, the air of the sewer will be explosive; and as sewer-men must always be provided with lights the poisonous action of more than 5 per cent. need hardly be considered. Now, as coal gas itself contains only about 5 per cent. of carbonic oxide, air containing 5 per cent. of coal gas will only contain about 0·25 per cent. of carbonic oxide. The experiments which I recently described in the *Journal of Physiology*[10] show that 0·25 per cent. of carbonic oxide would be at any rate sufficient to render a man absolutely helpless, so that if in a sewer he would probably be drowned. It would, however, require at least half an hour's exposure to cause any danger. Even with as little as 0·06 per cent. of carbonic oxide, or 1·2 per cent. of coal gas, a condition would be produced, after an hour or two, in which any extra exertions, such as that of climbing up a manhole, might give rise to temporary loss of consciousness or giddiness and thus easily cause a fatal accident. There is, therefore, no doubt that coal gas may be a source of serious danger in sewers, quite apart from its explosive properties, and probably some cases of poisoning have been due to it, though so far as I know no such case has been recorded. An observation of the colour of the blood when diluted to $\frac{1}{100}$th with water, and compared in a test-tube with the colour of a similarly diluted solution of normal blood, would always decide the question.[11] The possibility of suffocation from simple deficiency of oxygen in the air of a sewer must also be taken into account. The danger can scarcely ever arise except in the case of men descending a manhole previously to lighting their lamps. A lamp or candle is extinguished when the oxygen percentage falls to from 17·5 to 17·0, while such a small diminution will not sensibly affect a man. With the comparatively free ventilation existing in modern sewers

[5] Zeitschrift für Physiologische Chemie, vol. viii., 1884, p. 214.
[6] THE LANCET, Feb. 23rd 1861.
[7] Cf. Dunstan: Proceedings of the Royal Society, vol. xlvi., 1889, p. 21.
[8] Report to the Town Improvement Committee, Belfast, 1889.
[9] Besides coal gas, I have in one case met with traces of chlorine in a sewer. The chlorine was derived from waste liquor discharged from bleaching works.
[10] Vol. xviii., 1895, p. 428.
[11] Loc. cit., p. 430.

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there does not seem to be much actual risk of suffocation from want of oxygen. Even in the Bristol sewers, which have no street ventilators, I did not find more than 0·20 per cent. of carbonic acid, which would correspond to 20·7 per cent. of oxygen.[12] Whenever carbonic acid is present to any considerable extent in a sewer the oxygen percentage will be reduced to an equal or greater extent. The following are analyses of the residual atmospheres which I obtained after agitating decomposing sewage with its own volume of air for several hours in a closed bottle.[13]

—	No. 1.	No. 2.	No. 3.
Oxygen	12·41	9·41	11·90
Carbonic acid	5·99	7·52	7·62
Nitrogen	81·60	83·07	80·48

Such atmospheres will resemble in their action air highly vitiated by respiration. The first effect perceived as vitiation proceeds will be panting, due to the carbonic acid; but the ultimate danger to life from the immediate effects of the gas will be due chiefly to deficiency of oxygen. There is no evidence that the sewage contained in sewers ever gives off in dangerous amounts any other gaseous or volatile substance than sulphuretted hydrogen (and carbonic acid). Although the sense of smell leaves no doubt as to the existence in sewer air of traces of various volatile matters, yet none of these appear to be present in poisonous proportions. As regards the probability of infection from sewer air, the bacteriological analyses of the late Professor Carnelley and myself[14] showed directly how very small such a probability is; and the further experiments of Mr. J. P. Laws[15] have afforded additional, and still more convincing, evidence in the same direction.

I may finally refer briefly to some practical conclusions with regard to the safety of workmen in sewers. To prevent risk of poisoning by sulphuretted hydrogen, as well as to prevent smell, the main condition, besides sufficient ventilation, is to ensure a supply of free oxygen to the sewage. This can only be attained by keeping the sewage in motion, and in a not too deep layer. There will always, however, be bad smells in sewers as long as material is allowed to putrefy in the traps and drains of houses. The stirring up, by whatever means, of stagnating and putrefying sewage is specially apt to render the air of a sewer poisonous. The presence of dangerous proportions of sulphuretted hydrogen in sewer air may be recognised by its irritating action on the respiratory passages and eyes and by the discolouration of lead paper. Catching of the breath and smarting of the eyes are signs of imminent danger. The sense of smell is not a safe guide. When very marked discolouration of lead paper is produced within half a minute it is not safe to remain in a sewer unless a special respirator for absorbing sulphuretted hydrogen be used; even with a respirator 0·05 per cent. would soon cause intense conjunctivitis and photophobia. In cases of accidents from suffocative gases in man-holes, wells, &c., a rescuer should never on any account go down without a rope round his own body. The best way of temporarily ventilating such places is to lower into them hot coals or other burning material. When there is any suspicion of the presence of coal gas in a sewer safety-lamps only should be employed; and it seems desirable that foremen sewermen should know how to test both for sulphuretted hydrogen with lead paper, and for inflammable gas by observing the cap on a flame. When a distinct cap is present there is danger of poisoning, as well as of an explosion from any naked light in the neighbourhood. If there is no cap not more than about 2 per cent. of coal gas or 0·1 per cent. of carbonic oxide is likely to be present.[16] The gas will probably be strongest at the crown of the sewer, so that in testing for gas the safety lamp should be held high. If the lamp fires and is consequently extinguished, the man should hold his head as low as possible and make his escape at once, as there is great danger of poisoning. By letting down a candle or lamp and observing whether it burns it is always possible to ascertain whether the air in a sewer is dangerous from deficiency of oxygen. If the light burns there is not the slightest risk from this cause. The test with a light is, however, absolutely useless for detecting poisonous proportions of sulphuretted hydrogen, and a man in a sewer who trusted simply to this test might easily be led to his death.

Oxford.

[12] Transactions of the Sanitary Institute, 1887.

[13] As free oxygen was present there was no formation of sulphuretted hydrogen &c.

[14] Proceedings of the Royal Society, vol. xlii., p. 501 (Dundee and London Sewers), and Transactions of the Sanitary Institute, 1887 (Bristol Sewers).

[15] Reports to the Main Drainage Committee, London County Council, 1893 and 1894.

[16] With a Clowes hydrogen lamp as little as 0·5 per cent. of coal gas can easily be detected; so that not even symptoms of slight poisoning could be produced in air showing no cap with this lamp.

A CASE OF

TRANSPERITONEAL LIGATURE OF THE COMMON ILIAC ARTERY FOR DIFFUSE TRAUMATIC ANEURYSM OF THE EXTERNAL ILIAC AND COMMON FEMORAL ARTERIES; RECOVERY.

BY BRIGADE-SURGEON-LIEUTENANT-COLONEL W. F. STEVENSON,

PROFESSOR OF MILITARY SURGERY, ARMY MEDICAL SCHOOL, NETLEY,

AND

SURGEON-MAJOR H. J. MICHAEL, A.M.S.

ON Nov. 17th, 1895, I was asked to go to Dover to see in consultation, and, if necessary, to operate on, a case of aneurysm of the external iliac and common femoral arteries. The patient was a sergeant in the artillery stationed at Dover Castle under the charge of Surgeon-Major Michael, to whom I am indebted for the notes of the case as well as for its skilful after-treatment. On examining the patient an enormous tumour, having a marked expansile pulsation at all points, was found extending in one direction from two inches below the beginning of Hunter's canal to fully three inches above Poupart's ligament, and in the other from the symphysis pubis to the anterior superior spine of the ilium and the great trochanter, obliterating all signs of Poupart's ligament and of the fold of the groin on the left side. The most prominent point of the tumour was situated at about two inches below the centre of Poupart's ligament, and the increased antero-posterior thickness of the thigh, due to its presence over that of the sound limb at the similar spot, was about four inches. The walls of the tumour were extremely tense, and the pulsation was expansile and very forcible. The condition of the leg below was satisfactory as regards its temperature and circulation, and it was not enlarged or œdematous. The diagnosis admitted of no doubt. The case was evidently one of aneurysm of the external iliac and common femoral arteries, which had become diffused into the tissues of the thigh and abdomen. The previous history of the case was as follows. The patient, a man aged thirty-five years, having no history of syphilis, slipped when walking down an asphalt slope and fell with his left leg under him. He felt a sharp pain in the left groin at the time, but remained at his duty for a week before going to hospital. On Oct. 19th, when first seen by Surgeon-Major Michael, the left leg was swollen and œdematous, and the superficial veins were distended; there was a large swelling in the left groin, reaching from one inch above Poupart's ligament to six inches below it, and laterally occupying almost all the space between the pubes and the superior iliac spine. The tumour had a forcible expansile pulsation, and a loud bruit was audible over it. No pulsation could be felt in the femoral artery below it. The case was treated at this time by absolute rest in bed—the man had been walking about up to Oct. 19th—elevation of the limb, and bandaging from the foot to the middle of the thigh. The question of tying the external or the common iliac artery was discussed, but it was decided to delay for a few days before doing so in order that the swelling and œdema of the limb might decrease, thus placing the man in a better condition as regarded the establishment of the collateral circulation when the operation came to be performed. On the 27th the swelling and œdema of the leg and the engorgement of the superficial veins

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were very much less, though the limb was still larger than its fellow; the aneurysm remained unchanged. By the 29th the tumour was larger and very painful. A consultation was held, and it was determined to tie the common iliac artery on the next day. On the 30th, however, it was found that the contents of the tumour had become solid and that the pulsation had almost ceased. The pulsation continued to lessen, and on Nov. 4th none was to be felt in any part of the tumour, the whole of which was solid and firm. A faint bruit was still to be heard over a spot on the inner side. The leg was much reduced in size, and its temperature was fairly good. Apparently spontaneous cure was taking place, and the collateral circulation was being established. By the 7th the limb was of the same size as the other, and the case appeared to be progressing satisfactorily, there being no pulsation in the tumour. The improvement continued until the 14th, when slight pulsation was found to have recommenced. On the 15th the condition was entirely changed; strong pulsation could be felt all over the tumour, which had enlarged in every direction. The local condition had, in fact, become as it was when first seen by me, and as described at the beginning of this report. On consultation with the medical officers at Dover and Surgeon-Major Whitehead, Assistant Professor of Surgery at Netley, who had accompanied me, it was agreed that immediate operation appeared to be the only chance of saving the man's life: the patient consented without hesitation.

First operation.—The transperitoneal method of ligature of the common iliac artery was selected rather than the ordinary one, which in this case would have been of even more than usual difficulty, or, indeed, impossible; and every precaution as regards asepsis was observed. An incision was made from an inch below the umbilicus to within an inch and a half of the pubes, but later this had to be prolonged by another inch and a half, passing outside the umbilicus. When all bleeding points had been secured the peritoneum was opened to the same extent; the intestines were lifted out of the pelvis and pushed up towards the diaphragm, being retained there by a large flat sponge. The aneurysmal tumour occupied the whole of the external iliac vessel. At about the middle of the common iliac artery the peritoneum was opened and a strong silk ligature passed round the artery, which was normal in appearance. On attempting to pass the aneurysm needle from within outwards it hitched against some tissue which was in the way, but it passed readily from without inwards. All pulsation ceased on tying the ligature. As no blood or other fluid had passed into the pelvic cavity during the operation, no irrigation was done. The incision was then closed by silk sutures passing through all the structures of the abdominal wall, and the skin brought accurately together with horse-hair where necessary. The wound was dusted with iodoform and boracic acid powder, and iodoform gauze and alembroth wool dressings applied. My original intention was to complete the operation at one sitting by turning out the clots from the aneurysm and tying the femoral artery in Hunter's canal, if necessary; but as the operation was done in the afternoon of a very dull day and the light was extremely bad, and as the walls of the tumour became quite flaccid and all undue tension ceased immediately on the application of the ligature, we considered we might safely leave this portion of the treatment for a later and more favourable occasion, and the event proved the soundness of this view. The patient made an uninterrupted recovery from the laparotomy, the temperature never rising above 99° F., which point was recorded on the second day. The wound was dressed on the tenth day and was found to be perfectly healed. The circulation in the limb continued satisfactorily from the first, the collateral blood supply having become fairly well established before the operation.

Second operation.—As the tumour slowly diminished in size, the skin becoming loose and wrinkled from shrinking of the contents, and as no pulsation returned in it, there appeared to be no reason for the performance of the second part of the operative procedures until the patient had completely recovered from the laparotomy; accordingly the clots were not turned out until Dec. 21st. An incision about seven and a half inches in length was made over the tumour in the line of the sartorius muscle, commencing about one inch and a half below Poupart's ligament, and 2¼ lb. of very soft blood clot were removed, leaving a huge cavity occupying the upper and inner aspect of the thigh and extending from the bifurcation of the common iliac artery to the upper end of Hunter's canal. A small amount of the clot was firm, partly decoloured, and adherent to the walls of the cavity. There was little or no hæmorrhage. One ligature was put in, but it was hardly necessary. Very thorough irrigation was carried out, and the cavity filled with iodoform gauze, iodoform powder having been previously dusted in. Two sutures were put in at the middle of the incision, in order to prevent the skin from falling in, as it did in a similar case I had operated on, where the clots of a large aneurysm in Scarpa's triangle had suppurated and were removed. Dry gauze and alembroth wool dressings were applied; the knee and hip, which were fixed in a flexed and abducted position, were put straight while the man was still under the anæsthetic, and a back splint put on. The patient is still in hospital, but he feels perfectly well; the cavity is filling up by granulation; the circulation of the leg is perfect, and the limb is in good position.

Remarks.—On looking up the literature of transperitoneal ligation of the iliac arteries I find that Mr. Marmaduke Sheild[1] suggested that the comparative safety of modern surgical procedure would now warrant surgeons in always adopting this method. In the same volume[2] Mr. Mitchell Banks refers to Mr. Clement Lucas's case of ligature of the common iliac artery three years and a half previously for aneurysm of the external iliac artery, with recovery, and gives a case of his own of operation on the external iliac artery which recovered. He also mentions that Mr. Ballance and Mr. Edmunds had already drawn attention to three cases of ligature of the internal iliac artery reported by Dr. Dennis of New York, two being in his own practice, with one death. Mr. F. Treves, in his work on Operative Surgery, mentions a case under his care of ligature of the internal iliac artery in a boy aged sixteen years for vascular tumour of the buttock, followed by recovery. Mr. Makins has quite lately reported a successful case of ligature of both external iliac arteries in the same patient. As far, therefore, as the records are complete, we know of one case of ligature of the common iliac artery, four of the internal iliac artery, and three of the external iliac artery, done through the peritoneum, with only one death—i.e., among the cases in which the internal iliac artery was tied. The case just reported appears to be the second in which the common iliac artery has been ligatured through the peritoneum. The operation is simple and easy of performance, and if asepsis can be guaranteed, as it should be in these days, the mortality should be much less than that following operation by the older method. In the case under report no other procedure was possible. I am much indebted to Surgeon-Major Whitehead and Surgeon-Major Michael for their able assistance and advice at both operations.

Netley.

A CASE OF CÆSAREAN SECTION.

BY F. EVERARD ROW, L.R.C.P. EDIN., M.R.C.S. ENG.,
HONORARY SURGEON TO THE ROYAL ALBERT HOSPITAL, DEVONPORT.

AT about 2 A.M. on Feb. 25th, 1894, I was summoned to attend a married woman, a multipara. On arrival I found that she was in an exhausted condition, labour having commenced sixteen hours previously with strong and rapid pains. The membranes had ruptured six hours before I was sent for. On external examination I found very deep and extensive tertiary syphilitic ulceration, which extended from the mons Veneris to the tip of the coccyx, involving part of the buttock on either side. The labia majora were practically destroyed, and the whole of the perineal surface was a mass of foul granulation tissue, the anus appearing as a small depression in its midst. There was also a large ulcerated surface over the middle of the sacrum, and the whole of the room, bedclothes, linen, &c., reeked with the fetor of the discharge. Having regard to the length of the labour in a woman who had borne three children (the delivery in each case being perfectly normal), and the exhausted condition of the patient, I saw that operative interference of some kind was absolutely essential, and as it seemed impossible to deliver *per vias naturales* I determined to perform Cæsarean section. The circumstances of the

[1] Brit. Med. Jour., 1892, vol. ii., p. 974.
[2] Ibid., p. 1163.

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case were explained to the patient, who gladly consented to the operation. I was unable at the time to remove her to hospital and the operation was undertaken in her own room by candlelight, all the surroundings being of the most septic character. The patient having been prepared as far as possible, ether was administered by Mr. J. R. Rolston. An abdominal incision eight inches long was then made, the bleeding from this being practically *nil*, and the uterus was seen and lifted out of the abdomen, when it was found to be firmly contracted round the contained fœtus. The broad ligaments being firmly grasped by Dr. Rider (who, together with Mr. Bearblock, then of the Royal Albert Hospital, Devonport, kindly assisted me), I incised the uterus for about six inches, when a slight gush of blood followed. The breech of the fœtus was quickly and easily delivered, and a minute or so later the head, which was firmly impacted in the vagina, followed. The child was living and quite normal, the only noticeable point being the enormous size of the caput succedaneum, testifying to the amount of obstruction the vagina had offered to its descent. After the removal of the fœtus I gently peeled off the placenta with three fingers in the uterus, and no further loss of blood occurred. The uterus having been sewn up with six deep and eight superficial silk sutures, and the peritoneal toilet attended to, it was replaced in the abdomen and the abdominal wound closed by silk sutures embracing peritoneum, muscle, and skin. The operation lasted about half an hour. The patient had a temperature of 99° F. before the operation and was very anæmic, the ulceration having spread very rapidly the previous three months. On Feb. 26th she had slept fairly well. She had not vomited; there was no distension of the abdomen or pain; the uterus had well contracted. The temperature was 100°, and the pulse was regular but somewhat feeble. On the whole, she seemed to be very cheerful and comfortable. A small quantity of milk and brandy was ordered. At 10 A.M. on the 27th the patient was found to have been comfortable since my previous visit. There was still no pain or abdominal distension. The temperature was 99° and the pulse was rapid and feeble; more milk and stimulants were ordered. At 5 P.M. I found her much worse. The pulse was flickering and the temperature was 99·4°. She was suffering from no pain. She died at 6.30 P.M. Permission to make a post-mortem examination could not be obtained.

Remarks.—I have recorded this case because I do not remember to have heard, or read, of Cæsarean section ever having been performed under such conditions as are described above. Of the necessity for such an operation in this case I feel well assured. The length of time the patient—a multipara whose former labours had been quite regular and easy—had been in labour, and her exhausted condition, pointed to the necessity of operative interference of some kind, while the peculiar condition of the genital track, which totally precluded the use of forceps or craniotomy, made me determine to perform Cæsarean section as giving the best hope both for mother and child, and I am convinced that the death of the mother was due far more to her previous exhausted condition than to the operation itself, which, although carried out under the most septic conditions, was followed by no signs whatever of infection. The temperature did not rise above 100°, while the patient expressed herself as feeling perfectly comfortable and being free from pain. I much regret that I was unable to obtain permission to make a necropsy, as I could then have seen the exact condition of the uterine wound, but as far as could be judged by external signs and the patient's symptoms, it was in a perfectly healthy state at the time of her death.

Devonport.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD, LONDON.—Mr. Hope Morley, the treasurer of the Royal Hospital for Diseases of the Chest, E.C., has sent a donation of £50 towards the £2000 urgently required by this hospital.

LADYWELL SANATORIUM, SALFORD: PRESENTATION TO THE LADY SUPERINTENDENT.—On the 17th inst. the nursing staff of this institution presented to Miss Thomas, the lady superintendent, a solid silver afternoon tea-set, with Doulton ware cups and saucers, on the occasion of her completing the twentieth year of service in connexion with the Salford Corporation Hospitals. The present was accompanied by an address congratulating Miss Thomas, and hoping that she may be long spared to continue in so good a work.

SOME POINTS IN THE PATHOLOGY OF DIPHTHERIA.[1]

BY E. F. TREVELYAN, M.D. LOND., M.R.C.P.,

ASSISTANT PHYSICIAN TO THE LEEDS GENERAL INFIRMARY; PROFESSOR OF PATHOLOGY IN THE YORKSHIRE COLLEGE, LEEDS.

THE following paper is chiefly based (1) on the minute morbid anatomy of a case of diphtheria fatal from cardiac paralysis; (2) on the examination of a certain number of culture boxes under the scheme adopted by the Leeds Corporation at the instance of its medical officer of health (Dr. Spottiswoode Cameron); and (3) on some of the recent literature of the subject. The patient referred to above was admitted into the Leeds General Infirmary under the care of Dr. Barrs. The diphtheria was of the faucial variety, the membrane being placed on the left tonsil. I examined some of this membrane on the sixth day of the disease and obtained from it the diphtheria bacillus in pure culture. The patient, a girl aged seven years, was injected with 5 c.cm. of serum (Schering) on the seventh day of the disease. Improvement set in after this treatment, but ten days later death occurred unexpectedly from cardiac paralysis. Albuminuria persisted up to the time of death. At the necropsy no diphtheritic membrane was found on the mucous membranes. The heart weighed 3½ oz. and was slightly dilated, but the muscular substance appeared to be healthy to the naked eye. The kidneys together weighed 5 oz. and were of a normal size, but their structure appeared blurred. The liver and spleen weighed 24 oz. and ¾ oz. respectively, and were apparently healthy.

The typical manifestation of the local lesion in diphtheria is a membrane of a more or less fibrinous character. The more superficial parts, containing the bacteria, are granular, and the deeper parts frequently include a cellular element. This fibrinous exudation not only occurs on the surface of the mucous membrane, but also in its more superficial layers, so that its detachment, especially in the fauces, may be difficult. As to whether a similar membrane is produced in other infections has been a matter of dispute, but the weight of evidence is in favour of this view ("pseudo-diphtheria," as it has been called). There is certainly a resemblance between the fibrinous exudation produced under certain circumstances by the pneumococcus and that produced by the diphtheria bacillus. In respect to the bacteriological evidence a membrane occurring in the fauces (perhaps of somewhat different aspect) has been shown, both morphologically and by culture, to contain the streptococcus alone (Streptococcus pseudo-diphtheria).

The *lymphatic glands* in the neighbourhood are damaged in their endeavour to arrest the progress of the disease. They undergo hyperplastic changes, but in pure infections apparently never suppurate, this latter process being the result of a secondary infection.

The *kidneys* in excreting the bacterial poisons are almost always injured, sometimes in a slight, but at other times in a marked, degree. The naked-eye appearances of the kidney of diphtheria may be, as in other acute nephrites, slight, but the microscope reveals evidence of a true toxic nephritis. The chief changes in the above-named case were found in the glomeruli and tubules. There was no evidence of excessive vascularity or round-celled exudation in the connective-tissue supporting framework. The capsular epithelium showed unmistakable evidence of proliferation. The tubules were frequently found filled with a homogeneous exudation, and the definition of the central limits of the cells was obscure, fading off into the exudation. In a section stained and decolourised according to Weigert's fibrin method this material in the tubules remained stained of a deep violet colour, often with a reddish tinge. In some parts the renal cells appeared to be of smaller volume and the nuclei fewer than usual. The most marked alteration of the renal cells lay in the convoluted tubes.

The changes in the *heart* are of great importance, as the larger proportion of cases of sudden death in diphtheria are connected with a profound alteration in the cardiac muscle. Whether some of these very sudden deaths may not be due exceptionally to a lesion of the pneumogastric nerves or of

[1] A paper read before a pathological meeting of the Leeds and West Riding Medico-Chirurgical Society on Dec. 13th, 1895.

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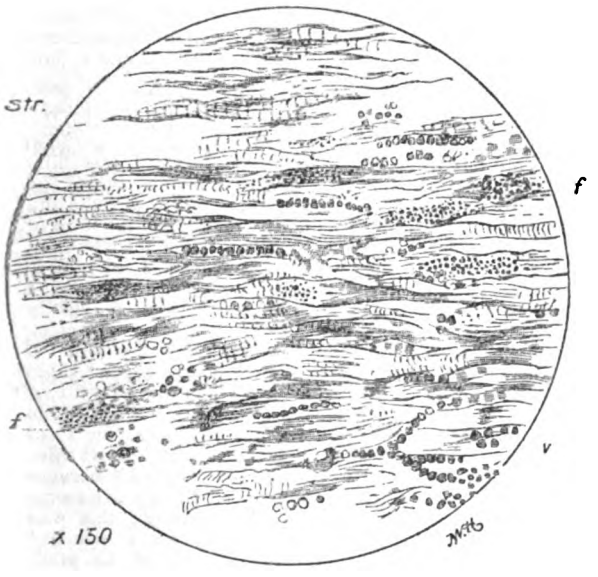
the bulbar centres must be left an open question. The bacterial poisons of diphtheria appear to have almost a selective action upon nervous structures. In the fatal case above referred to, marked changes were present in the myocardium. Some of the cardiac muscle fibres were seen, in osmic acid preparations, to consist of granules staining a deep black colour. In some places the degeneration seemed to have advanced so far that no definite fibres were distinguishable. The striation of the fibres remained in certain places, but was obscure or lost in others. The muscle nuclei were indistinct, but no definite evidence of proliferation was found. The interstitial tissue seemed to be very little affected. There was no evidence of cellular exudation about the minute vessels. Thus the lesion appeared to be an acute degenerative myocarditis. (See illustration.) Dr. Schemm[2] examined the cardiac muscle in thirteen fatal cases of diphtheria, eight of which succumbed to cardiac paralysis. He found fatty and granular degeneration, swelling and increase in the muscle nuclei, slight hyaline



Acute degenerative myocarditis. *f*, fibre with fatty granules. *v.*, vessel. *str.*, striated fibres. Formol, osmic acid, Bismarck brown.

degeneration, and atrophy in the muscle fibres. These changes were present in all cases, but more marked in those which had succumbed to cardiac paralysis.

Pieces of the *pneumogastric nerves* were examined in the above-named case, but no lesion was found. The medulla was not examined.

The *spleen* is frequently enlarged, partly as the result of vascular engorgement and partly owing to proliferative changes in its parenchymatous elements.

The *liver* is often slightly enlarged, and the cells show evidence of cloudy swelling.

The *nerves* may be affected by a curious local periaxial neuritis.

An important question has arisen as to whether these pathological changes in diphtheria may be in any way induced or aggravated by the serum treatment. It has been stated by some observers that cardiac and renal lesions are more frequently found in cases so treated. The question has been well answered by other observers, who show that the increase in the number of cases succumbing to cardiac paralysis is more apparent than real—that, if deaths due to other causes in diphtheria are lessened, then those from sudden cardiac paralysis may appear to have increased; but it is only a relative and not an absolute increase. There is no substantial evidence to show that the serum treatment can in any way be directly connected with the cardiac and renal lesions found in these cases. Such lesions are present in a large number of fatal cases treated, or not, by the serum. It is surprising to see that so able a pathologist as Dr. Councilman[3] states that diphtheria has not the same tendency to produce nephritis as have other infections.

[2] Virchow's Archiv, August, 1890.
[3] Boston Medical and Surgical Journal, September, 1895.

It may be taken as beyond dispute that the diphtheria bacillus is the sole cause of true diphtheria. This bacillus, as is well known, is non-motile, about the same length as the tubercle bacillus, but thicker, and shows a curious unevenness or segmentation in its structure, owing to some parts staining more deeply than others. Its ends are frequently clubbed. It is necessary to note that this micro-organism varies considerably in its morphological appearances, according to the age of its growth and the character of the culture medium. Involution forms are common. In blood-serum tubes it is even said at times to grow in threads.[4] Most would deny that there is any characteristic stain for Löffler's bacillus, yet recently Crouch[5] maintained that, with a solution of dahlia methyl-green, the rounded bodies at the ends of the bacilli stained red, and the rest of a greenish colour. Crouch would look upon these bodies as of a nuclear nature, and as having nothing in common with spore formation; they are best seen in fresh cultures. Mr. Wager, formerly of the Yorkshire College, who has made some important observations on the structure of non-pathogenic bacteria, is inclined to look upon them as nucleoli. I have on many occasions used this dahlia methyl-green stain, but am not able to see as yet any special advantages in it. The diphtheria bacillus grows on all the ordinary nutrient media—nutrient gelatine, agar, and particularly glycerine agar. The great disadvantage attending the use of ordinary media is that the other micro-organisms so frequently associated with the diphtheria bacillus grow, if anything, more luxuriantly on these media and to some extent crowd out of existence the diphtheria bacillus. Hence it is that nutrient serum is frequently employed for differential diagnosis. Recently I have used an agar serum introduced by Tochtermann,[6] but have not as yet found any special advantages in it. The character of the colonies developing on these media is important. They vary somewhat according to the culture medium. They are round in shape, mostly of a greyish-white colour, with a darker centre and a granular aspect. As regards the distribution of the bacilli in the body in cases of human diphtheria, they are found only in the local lesion and do not penetrate deeply into that. Diphtheria, like tetanus, is eminently a toxic disease, all the lesions, except the local one, being set up by the poisons produced by the bacilli. A disease can be produced in susceptible animals by the injection of the isolated toxines corresponding in all particulars to that set up by the inoculation of a virulent diphtheria culture, with this exception, that the symptoms are produced with much greater rapidity. In the one case the poisons are injected ready-made; in the other they have to be manufactured at the site of inoculation. This, along with other evidence, shows that in the stricter sense diphtheria is an intoxication. The diphtheria bacillus is more rarely found alone in the local lesion, as in the case referred to above. It most often has its associates, such as the streptococcus and staphylococcus. This point is of considerable practical importance, not only owing to the difficulty which it introduces into the bacteriological diagnosis, but also from the point of view of treatment. Thus, the patient's life may be destroyed, not by the diphtheria infection, but from some other infection, such as that of the streptococcus, &c. The treatment adapted to a pure diphtheria infection may be quite inefficient in such cases.

A very important subject from the point of view of the prevention of the disease is the existence of the diphtheria bacillus outside the human body. It may exist apparently in the diphtheritic membrane for some two to four months and still maintain its powers of growth. The question of diphtheria occurring in some of the lower animals, such as cats and fowls, also needs investigation.

[Here the culture-box above referred to was described, and a sketch given of the methods employed in examining the diphtheritic membrane or secretion when received at the laboratory.] An American author, Dr. Ohlmacher,[7] has said that he is able to recognise diphtheria in four hours, whether growth on the medium can be detected by the naked eye or not. He then simply draws his platinum loop over the surface of the nutrient medium and proceeds to make cover-glass preparations, using very little water. I have only tried this method on a few occasions, but without success. When growth has appeared in the tube it is often

[4] Abbott: Journal of Pathology, vol. ii., 1894.
[5] New York Medical Journal, October, 1895.
[6] Centralblatt für Innere Medicin, October, 1895.
[7] Philadelphia Medical News, May 4th, 1895.

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convenient to turn the nutrient cylinder out of the test-tube into a Petri's dish by means of gentle heat. The colonies can then be examined with considerable ease. If further cultivation is desirable the Petri's dish can be put into the incubator. If, on the other hand, it is desired to preserve the nutrient cylinder a few drops of formol can be poured into the dish, and thus a formol chamber is produced. Formol has in my experience proved itself to be a valuable addition to the laboratory both as a disinfectant and as a hardening agent.

In conclusion, it is almost impossible to exaggerate the services that bacteriology has already rendered to clinical work. Owing to it diphtheria is now perhaps one of the best understood of diseases. Thus in diphtheria is illustrated the happy result of judiciously combined clinical investigation and laboratory research. I have to thank Dr. Barrs for permission to make use of the case referred to in this paper, and Dr. Roberts, the resident medical officer at the Infirmary, for some valuable notes.

Leeds.

A CASE OF THORACIC ANEURYSM.

BY JOHN C. UNDERWOOD, L.R.C.P. LOND., M.R.C.S. ENG.

As the following case appears to me to present some unusual points I venture to think it may interest some of the readers of THE LANCET.

On May 13th, 1895, I was called to see a man aged fifty, and found him sitting up in bed suffering from considerable pain in the chest, and was given the following account of his illness. Until November, 1894, he had, with the exception of slight pain in the chest, enjoyed very good health; he had been physically very strong and had done a good deal of very hard work, including lifting heavy weights. About that time he experienced severe pain in the neighbourhood of the third costal cartilage of the left side, which obliged him to leave a van he was with and return home by train, when, and for some considerable time afterwards, he was attended by a medical man. His family history was good; his father died at the age of seventy-eight years; his mother, aged seventy-six years, suffered from some "liver trouble"; all his grandparents had attained old age; and his brothers and sisters were enjoying good health. As regards the patient's personal history there had been a possible contraction of syphilis when he was quite young, and this was, I think, borne out by several miscarriages on the part of his wife, no child living for any length of time. He used at one time to take a considerable quantity of beer, but had never been a drunkard. On examination he was found to be pale, worn, and anxious-looking; the pupils of the eyes were equal and medium-sized, the conjunctivæ were pale, and there was no arcus senilis. The tongue was pale and moist and protruded in a direct line. The bowels were regular. He had a slight hacking cough, rather harsh, but not brassy. His appetite was fairly good. He never had a headache. The chest was very well formed and broad, the ribs were well arched, and no superficial veins were apparent. In the lungs there was healthy vesicular breathing, except opposite the vertebral border of the left scapula, where there were slight dulness and pain, and the breath sounds were weak over an area measuring an inch and a half by two inches and a half. The heart dulness was normal, the sounds being rather weak The pulse was medium, soft, compressible, and not persistent, and that of the left side rather the fuller; this latter condition continued to the end. Dulness, pulsation, and tenderness were present at the left edge of the sternum, on the level of the third costal cartilage, just above the heart dulness. The abdomen was normal, the liver, spleen, and kidneys being normal also. No albumin was present in the urine. In the neck there were a few slightly enlarged glands at the posterior edge of the sterno-mastoid muscle. In June he complained that he could feel a trickling in his left chest; this I thought to be due to the rupture of a vein behind the sternum from pressure of the aneurysm. At the end of the month he began to experience severe anginal attacks, the pain proceeding from the neighbourhood of the swelling and running thence down the left arm, the hand becoming quite cold to the touch and the pulse being considerably lessened in volume, its rate being 92 per minute. The swelling enlarged gradually and to the left side, the pulsation, of an expansile nature, becoming more marked; the pain also grew more severe at times. I now recognised that the true aneurysmal sac had given way and that a false aneurysm was forming in the left anterior mediastinum. Eventually the whole front of the left chest became dull and pulsating, and the heart was gradually pushed behind the sternum. Breath sounds could be heard feebly for a time over the front of the chest and, up to the last, over the back, though much less than normal. Those on the right side became somewhat exaggerated, but not to the extent of being puerile. In October the second and third ribs were becoming absorbed, and at the last no ribs could be felt in front as far down as about an inch or an inch and a half below the nipple. At this time the tumour projected forwards to the extent of an inch and a quarter above the level of the ribs and was pulsating in a general expansile manner. Just before each of the frequently recurring attacks of pain the patient always described his sensations as "lumpy" or "in knots." Ten days before his death the tumour reached from the first rib to the seventh, and laterally from the right side of the manubrium to the axilla, its measurements being ten and a half inches by fourteen and a half inches, and one and a half inches from before backwards, as nearly as I could judge. In the early part of November I noticed that the left arm and hand were swollen, and also the back of the right hand to a slighter extent, and the superficial veins over the front of the tumour were enlarged, especially near the manubrium, the skin was dusky, and the wall of the tumour was becoming much thinner. Later a pulsating swelling about half an inch in diameter formed at the level of the fourth left costal cartilage, one inch from the sternum. When this was on the point of bursting I incised it and removed some blood-clot. This I did because I considered that the false aneurysm had perforated slightly at the higher point mentioned and was dissecting its way downwards between the skin and the sac. I applied antiseptic dressings to the opening, strapped them down firmly, and then applied a pad which was affixed to a stout piece of twill shaped and worn like an "ephod," this being kept tightly in position by four bandages, one from each corner. On Dec. 3rd, as he usually lay on his left side, but frequently changed his position, the "ephod" became displaced, and I was hurriedly summoned to stop a hæmorrhage from the aforementioned small opening; this was easily accomplished, and he lost but a small quantity of blood, the nurse having been instructed to press on the skin between the outer opening and where the inner one was situated. On the 5th and 7th there were two more attacks of hæmorrhage, and he lost considerably more blood and was much exhausted thereby. On the 11th, at 5 A.M., I was called, as another hæmorrhage had taken place. I found him unconscious, with widely dilated pupils, no pulse perceptible at the wrists, and the heart sounds scarcely audible. He partially recovered consciousness about 9 A.M., but on the following day he had no recollection of the previous one. On the 14th I was three miles distant when I was summoned to him again. On my arrival he was pulseless and unconscious. He was surrounded with hot-water bottles, sulphuric ether was injected subcutaneously three times, and one pint of normal saline fluid was passed into the rectum. He never rallied, and died in an hour. The treatment consisted of the exhibition of iodide of potassium up to 160 grains daily, morphia, belladonna, aconite, bromide of potassium, trinitrine, diaphoretics and diuretics, aperients, and subchloride of mercury in one-grain doses (but he only took six of these tabloids, as he became salivated), together with the application of belladonna plasters and inhalations of nitrite of amyl; he also was given subcutaneous injections of morphia and of morphia and cocaine, this latter combination relieving the pain more quickly. He had good nourishing food in as dry a form as possible, with plenty of fat, fluids being limited to one pint daily.

Necropsy.—Only the chest was allowed to be examined. Incisions were made through the skin along the clavicle, down the sternum, and across to the axillary line. The front wall of the false aneurysm was formed of skin and pectoral muscles only, these muscles being evenly spread all over the front of the tumour. At the inner part, near the sternum, there was a small opening through the fibres of the pectoral muscles. The whole of the left anterior mediastinum down to the diaphragm was filled with more than two quarts of recent blood-clot, the lung being squeezed to the back

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in a thin layer and matted at its inner edge to the pericardium. The whole front part of the second, third, fourth, and fifth ribs and part of the sixth rib and costal cartilages were absorbed, except a small piece of the third costal cartilage, which projected into the clot. There were some loose pieces of rib and cartilage in the substance of the clot. The pericardium contained about half-a-pint of yellowish-brown serum. The heart was collapsed and covered with a thin layer of fat, its cavities being dilated and absolutely empty, and its walls flabby and pallid. The tricuspid opening admitted the tips of three fingers, the mitral two fingers, their valves, together with those of the pulmonary artery, being normal. The aortic opening permitted the index-finger to be passed freely through it; its valve was slightly incompetent. Immediately beyond the valve the true aneurysm commenced; it was quite globular, easily contained my closed fist, and lay behind the middle and upper bones of the sternum. The inner walls were extremely atheromatous, and between the openings of the innominate and the left carotid arteries there was a bony plate which snapped when I bent it. The aorta as far down as I could remove it presented much atheroma. The openings of the innominate, left carotid, and subclavian arteries were quite normal, as well as the arteries themselves. Antero-laterally to the left there was a ragged rent in the sac-wall large enough to admit the tips of my four fingers, opening directly into the false aneurysm. The front and right sides of the sac were lined by a nearly white laminated and organised layer of blood-clot about three-eighths of an inch thick. There was scarcely any fluid in the sac. I became aware, when too late, that I should have been allowed to remove the specimen.

Luton.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF PUERPERAL HYPERPYREXIA.

BY H. LAIRD PEARSON, M.R.C.S. ENG., L.R.C.P. LOND.

THE patient, a married woman, was delivered on Oct. 12th, 1895, the head of the fœtus being assisted over the perineum with forceps. On the evening of the fifth day the temperature was 107·4° F., having been preceded by a sharp rigor. There was no abdominal distension or tenderness; the lochia had ceased. The uterus was at once washed out with a 1 in 5000 sublimate solution; a powder consisting of calomel, 4 gr., and acetanilid, 10 gr., was given. In thirty-five minutes the temperature had fallen five degrees. The acetanilid was repeated every twelve hours, the uterus being washed out again twelve hours later. On the evening of the seventh day the temperature, which had remained at about 102°, rose to 106°. The uterus was again syringed out—making the third and last time—and in addition to the diurnal dose of acetanilid two grains of muriate of quinine were given every two hours. The temperature for the next fortnight gradually dropped to the normal. The acetanilid was given regularly for twelve days, the patient exhibiting fairly-marked continuous cyanosis; the quinine was administered a week longer. She is now well. The infant was still at the breast when the temperature stood at 107·4°; it died twenty-four hours later after bilious vomiting and convulsions.

Remarks.—Seven weeks earlier I was in attendance on a case of puerperal septicæmia that ended fatally; one week earlier a lying-in case gave me much anxiety on account of fever lasting a week; two other confinements during the same period were attended by no unfavourable symptoms. I must admit that I saw little hope for the patient with her temperature at 107·4° and obvious septic intoxication, and that the good result that followed was owing to the acetanilid. I have used the drug very extensively and place much reliance upon keeping the patient fairly cyanosed under it. I have never seen it produce alarming symptoms.

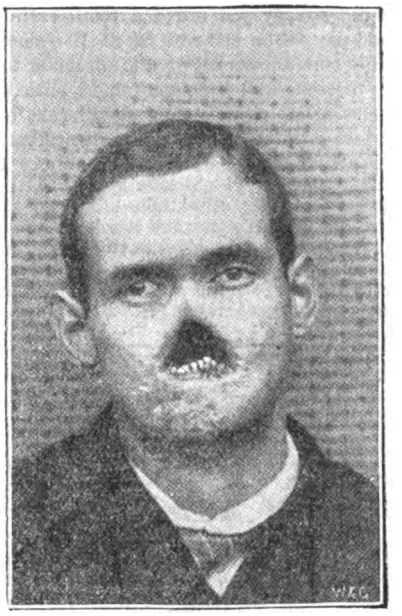
Holt Hill, Tranmere, Birkenhead.

EXTENSIVE LUPUS OF THE FACE GREATLY IMPROVED IN APPEARANCE BY AN ARTIFICIAL NOSE AND MASK.

BY E. J. SMYTH, M.B., B.S. LOND.,
RESIDENT MEDICAL OFFICER, CITY INFIRMARY, BIRMINGHAM.

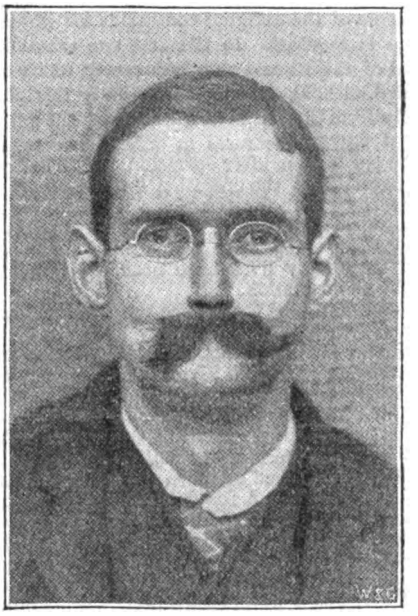
THE patient is a man aged twenty-seven years who has been under the care of Dr. Sydney Short in the Infirmary, Birmingham, for some months. He has suffered from lupus

FIG. 1.



of the face since twelve years of age, and, as will be seen by the illustration (Fig. 1), the resulting destruction of parts is very extensive. The nose, the adjoining parts of the cheeks,

FIG. 2.



the hard and soft palate, the alveolar portions of the superior maxillæ, together with the chief parts of the walls of the nasal fossæ, are completely destroyed. The mask, which

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was made by Messrs. Salt and Son, consists of a nose with adjoining part of the cheeks and upper lip with moustache, and is kept in position by a spectacle frame. The greatly improved appearance of the patient (Fig. 2) together with the fact that speech is rendered much more distinct than before are points, I think, which make the case worthy of record.

HÆMORRHAGE AFTER TOOTH EXTRACTION ARRESTED INSTANTLY BY ETHYL CHLORIDE.

BY A. E. HIND, F.R.C.S. ENG.,
SURGEON TO THE JERSEY PRISON AND POST OFFICE.

A GIRL aged twenty years had a tooth extracted by a dentist at mid-day. She came to me at 10 o'clock at night bleeding freely from the socket of a lower molar tooth. She said that the bleeding had been continuous since the extraction. Pressure and plugging with perchloride of iron had been resorted to without any result. Remembering a case that resisted all ordinary methods of treatment I resolved to try freezing with ethyl chloride spray. After clearing out the clots I found that ethyl chloride spray stopped all bleeding immediately. To prevent it recurring on thawing I lightly plugged with wool soaked in tincture of hamamelis. Not another drop of blood escaped. There was no pain. Although ethyl chloride is much used for producing anæsthesia in small operations this suggests a further use.

St. Heliers, Jersey.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

THREE CASES OF OPERATION ON THE GALL-BLADDER.

(Under the care of Mr. A. E. BARKER.)

THE following cases are examples of operation for the effects of the impaction of gall-stones in the biliary passages, and show some of the different conditions for which surgical interference is required. In the first two the difficulties in the removal of the stones were apparently easily overcome, but the third, although it was successfully treated, differed considerably from the others in the state of the gall-bladder, and required special measures in order to prevent escape of bile into the peritoneum after operation. Although we do not hold with Czerny that the operation for gall-stones is much less serious than that for the removal of stones from the urinary bladder, still there is no doubt that the statistics of the operation are much more favourable than has been supposed, and that many lives have been saved and rendered endurable by the operation.

CASE 1.—A man aged thirty-nine years was admitted into University College Hospital on May 17th, 1895. He had always enjoyed fairly good health and had been temperate, but suffered from dyspepsia; he was not subject to bilious attacks. His family history was good. In September, 1894, he had suffered from a severe attack of choleraic diarrhœa, lasting four or five days. During the same week he was attacked with very severe abdominal pain, only relieved by morphia. The pain passed off quite suddenly, and he brought up a good deal of bile. A few days before admission he was again attacked with similar pain, lasting twenty-two hours. Twice he was sick, bringing up bile each time. Dull, aching pain had remained ever since except when he lay quite still, and was noticed in the right hypochondrium and umbilical region. There was a well-defined prominence an inch and a half to the right of the umbilicus and one inch below it. This moved up and down with respiration. The right side of the abdomen was rather more rigid than the left. The lump felt was tender to the touch, and its upper limit could not be defined. Over this lump the abdomen was resonant up to the border of the liver, which extended in the nipple line nearly an inch below the ribs. Nothing abnormal was to be felt in the rest of the abdomen, and there was no jaundice at any time. Regarding this case as one of gall-stone impacted in the cystic duct, Mr. Barker operated as follows. On May 18th chloroform was administered, and a three-inch incision was made over the tumour through the outer border of the rectus muscle, the upper end of the cut being about one inch below the costal margin. All bleeding, which was trifling, having been stopped, the peritoneum was opened and the lump exposed just under the border of the liver. It was seen to be a distended gall-bladder, red and œdematous from inflammation, and adherent to the margin of the liver. The serous surface of the gall-bladder was now sutured to the parietal peritoneum all round a central space. Through the latter the viscus was incised, giving exit to a quantity of clear, opalescent, mucoid fluid, followed by about one ounce of pus. Then a quantity of biliary concretion was removed with a scoop. The finger was thereupon introduced into the cystic duct for about three inches, and a solid calculus was felt high up. This was caught with some difficulty in a long forceps and removed when the passage appeared to be quite free. The calculus was oblong and about as thick as an ordinary cedar pencil. A piece of drainage-tube was now inserted into the gall-bladder, the opening of which was sutured round the tube. The wound was then closed round the drainage-tube and covered with gauze (alembroth). The projecting portion of the tube was now united by means of a bit of glass tube with a longer rubber tube which terminated in a feeding-bottle by the patient's side. Recovery was quite uneventful. The bile drained into the bottle, without soiling the dressings, to the extent of two or three ounces daily. The tube was removed on the seventh day, and the stitches were taken out on the ninth day. On the twenty-second day the wound was healed and the patient was quite well. With the exception of the second day, when the temperature rose to 100·8° F., it was under 99° until the end of the case.

CASE 2.—A woman aged forty years had been seized six months before admission with violent abdominal pain coming on suddenly and shooting down the right side. The patient had also suffered from "sick headache" for the preceding six months. Again, one month previously, a sharp pain came on, shooting down the right leg through the right side of the abdomen. The patient was "doubled up" by this, and it lasted on and off for a week. A lump was then noticed in the abdomen which she said had become softer within the last two days. The pain was felt in the right side and loin. The patient was thin and wiry, and her abdomen was flat and slightly fuller on the right side. Here the muscles were rather rigid, and under them a tumour could be felt about two inches to the right of the middle line and extending to just below the umbilicus. This was moderately firm and elastic and could be well felt between the hands placed one in front and the other in the flank. It moved up and down with respiration. The percussion note was dulled over it, but resonance of the colon was present in the flank. The liver was not enlarged. There had been no jaundice. The tumour was regarded as either a floating kidney or an enlarged gall-bladder—most likely the latter. An operation was performed on June 20th, 1895. Chloroform was administered, and an incision three inches and a half long was made through the outer part of the rectus muscle. A few small vessels were clamped. The lump was at once seen to be a distended gall-bladder. It was sutured to the parietal peritoneum with a continuous silk suture and incised vertically. A very free escape of clear mucous fluid took place to the extent of about five ounces. The finger on being introduced could not reach the upper end of the gall-bladder, and in the attempt the stitches tore away. With the finger in the peritoneum a large stone could be felt in the cystic duct. After much manipulation and with a long forceps this was with difficulty extracted. The gall-bladder was again sutured to the peritoneum and round a long rubber tube whose upper end rested in the cystic duct. The abdominal wound was then closely sutured round the tube, which was carried through the salicylic wool dressings into a bottle placed at the patient's side. The calculus weighed sixty-four grains. The bile drained well into the bottle until the ninth day, when the tube and stitches were removed. A few days later the wound was quite healed and convalescence was complete. Recovery was uneventful except for a rise of temperature on

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the eighth day to 103·8° F., for which no reason could be assigned.

CASE 3.—The patient, a woman aged forty-one years, was admitted to hospital on Nov. 11th, 1895. She had been a healthy woman all her life except for a tendency to chronic diarrhœa, amounting to two or three loose stools daily. She had never been two months without this symptom. The present ailment began with an attack of jaundice in 1889, followed for some years by occasional attacks of the same condition, and then much more frequently. She passed the first biliary calculi in 1889 and since 1892 had frequently passed them. The size had been about that of a pea. Attacks of jaundice with passage of calculi occurred with each of the four pregnancies. Her mother had probably suffered in a similar way. Her father was alive and healthy. The present series of attacks of jaundice with passage of calculi occurred in July, August, September, and October last, and one was observed on Nov. 12th, the day after her admission to hospital, and another on the day following. These were accompanied by great abdominal pain, sickness, and icterus, with slight rise of temperature. An examination of the abdomen showed much subcutaneous fat and yellow skin. The liver did not appear to be enlarged (it was subsequently found to be so), and no definite tumour could be felt. Relying on the symptoms, an operation to explore the condition of the gall-bladder was proposed and readily agreed to. The operation was performed on Nov. 14th, 1895, gas and ether being administered. Nothing abnormal could be felt under the anæsthetic when the abdomen was relaxed. An incision was made through the outer border of the right rectus muscle for about four or five inches, beginning just below the rib. The subcutaneous fat was fully an inch thick. When all bleeding had been stopped the peritoneum was slit, and it was at once seen that the liver was much enlarged, reaching from two inches and a half to three inches below the ribs. It showed well-marked signs of perihepatitis. On raising its border the omentum was found to be adherent to its under surface by old inflammation. The adhesions were clamped and divided. The gall-bladder could only be seen by pulling the liver strongly upwards, as it was very deeply seated and only about as large as the last joint of the thumb. It was also adherent to the duodenum. To the finger it appeared very hard, as though containing a calculus. Before opening it the wound was packed with sponges and over these with iodoform gauze. On incising the gall-bladder cautiously only a small quantity of clear fluid escaped, and with a sharp spoon a little calculous débris was removed. A long probe was then passed up the cystic duct, and at a distance of about five or six inches from the skin it entered the dilated common duct, and a large quantity of clear mucoid fluid followed by muco-pus escaped to the extent of some four or five ounces. But no stone could be found. A thin rubber drainage-tube was then introduced into the shrunken gall-bladder and as far up the cystic duct as was possible. It completely filled the wound in the gall-bladder. The gauze packing and the sponges were now removed, and when the whole area of operation had been again sponged over a mass of omentum was drawn up and placed round the gall-bladder and tube as a dam. The latter was then again packed round with strips of iodoform gauze, the end of each being carried out of the wound. When this was completed the latter was closed with silk sutures except where the tube and the strips of gauze ran out. The tube was then connected with a bottle as in the other cases. The patient bore the operation well and was only sick once from the anæsthetic. On the next day the tube was slightly displaced and the wound was dressed; only some blood was found in the dressings. About four ounces and a half of bile had drained into the bottle. With the exception of one or two hitches in the action of the drain-tube, which were followed by jaundice, vomiting, and fever of short duration, the recovery of the patient was rapid. Soon after the tube into the gall-bladder had been removed, on Dec. 11th, the external wound closed and the patient appeared to be quite well. She has since left the hospital apparently quite well.

Remarks by Mr. BARKER.—These cases illustrate one of the most beneficial branches of abdominal surgery. The distress caused by biliary calculi impacted either in the cystic or common duct is very great, and the risks of the condition do not need to be insisted upon. The ease with which such calculi can be removed is seen in Cases 1 and 2, and the difficulties and risks in Case 3. Where the gall-bladder can be drawn into the abdominal wound the operation is very easy, and the contents of the bladder can be easily prevented from entering the peritoneum; but where the viscus lies deep and is immovable, as in Case 3, it is very difficult to prevent this escape. Under such circumstances I have found the method of packing iodoform gauze all round the swelling before incising it most useful. And, finally, if the bladder will not come up to the peritoneum the latter must be stripped off from the rectus sheath and pressed down to the gall-bladder and stitched to it, as recommended by Mr. Mayo Robson. But even this in some cases is inadequate to shut off the peritoneum completely. In such a case I have found it well to follow the method of the surgeon named, and to draw the omentum into the opening remaining, and to stitch it there to close it. The mode of draining the gall-bladder employed here I first saw put in practice by Dr. Körte in Berlin. It has the merit of keeping the dressings free from bile and obviating the necessity of frequent change. It answered admirably in all these cases and in others in which I have employed it, and saves a great deal of trouble and some risk from frequent dressings. The difficulties encountered in Case 3 were very great, owing to the enlargement of the liver and the depth and small size of the gall-bladder, as well as the presence of a large quantity of mucus and pus in the dilated ducts. But these difficulties were overcome with care, and at no time after operation was there any evidence that septic matter had found its way into the peritoneum. As soon as it is seen that the bowels act and that the motions contain the normal amount of bile the tube in the gall-bladder can be removed in such cases as the above, and where the proceedings have been as detailed no biliary fistula results.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Escape of Diphtheria Bacilli into the Blood and Organs.—Extensive Hæmorrhage due to Pyogenic Micro-organisms.—Syphilitic Arteritis of the Ascending Aorta.—Cancer of Colon associated with Membranous Colitis.—Epithelioma in an Œsophageal Pouch.

AN ordinary meeting of this society was held on Jan. 21st, Mr. BUTLIN, President, being in the chair.

Dr. KANTHACK and Dr. J. W. W. STEPHENS read a paper on the Escape of Diphtheria Bacillus into the Blood and Organs. They said that it was generally asserted that the diphtheria bacillus did not escape from the membranes and was found there alone, not entering the lymphatic or blood stream. Wright of Philadelphia, Frosch, and others had shown that the escape of the diphtheria bacillus into the organs and even into the circulation was by no means uncommon, at least in fatal cases. The writers recorded a number of observations made on 19 fatal cases of diphtheria which had been clinically of a severe type. In all these 19 cases the lungs after death contained diphtheria bacilli in large numbers; in 13 of them there was marked broncho-pneumonia, which they considered to be diphtheritic in nature; anyhow, it was erroneous to assume that the broncho-pneumonia complicating diphtheria was of purely pyococcus origin, as was frequently believed. Wright examined 14 cases, and found the diphtheria bacillus in the lungs in 13, and in 10 of those there was also broncho-pneumonia, and it should be remembered that Frosch and Kutscher also frequently found the bacillus in the pneumonic foci. But in their own cases, and in those described by Wright, the diphtheritic process was generally laryngeal, membrane frequently extending below the glottis into the trachea. Sixteen of their cases were laryngeal diphtheria, and in 12 of these there existed broncho-pneumonia, while amongst Wright's cases 9 were laryngeal, with broncho-pneumonia in 6 of them. Tracheotomy had been performed in most of them, but they did not consider this operation to be the cause of the appearance of the bacilli in the lungs, since in most cases the children had been admitted in a dying or serious condition and generally died one or two days after the operation. Since broncho-pneumonia frequently appeared without a previous tracheotomy, that operation could not be accused of being the cause of the broncho-pneumonia. From their observations they concluded that the broncho-pneumonia which so frequently

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accompanied diphtheria was frequently, if not generally, diphtheritic in nature. The spleen was examined in 14 of the 19 cases and bacilli were found in 10 instances, while Wright found them present only in 2 cases out of 14. They explained their results by the fact that they used a culture medium prepared from ascitic fluid made strongly alkaline to which 1·5 per cent. agar-agar, 5 per cent. glycerine, and 1 per cent. grape sugar had been added. This medium had a strong selective action on the Klebs-Löffler bacillus. They further found that the presence of bacilli in the spleen was associated in all their cases with the presence of bacilli in the lungs, and in 75 per cent. there was broncho-pneumonia as well. In fatal cases, therefore, it must be allowed that diphtheritic infection readily became general. An escape of the diphtheria bacillus might occur in one of four ways: (*a*) by accidental and direct transference from one part of the body to another; (*b*) along existing passages, such as the nose, lacrymal duct, œsophagus, trachea, bronchi, &c.; (*c*) along the lymphatics, since diphtheria bacilli were frequently found in the cervical and bronchial lymphatic glands; and (*d*) by the blood stream into the spleen, liver, kidneys, &c. Experiments on animals made by others clearly established the possibility of such an escape of the diphtheria bacillus from the seat of infection into the liver, spleen, or blood. They concluded from these observations that Dr. Sidney Martin's hypothesis regarding the process of intoxication was hardly tenable. He believed that a ferment was secreted by the bacilli, which on absorption converted the tissue proteids into toxic albumoses, and that these products of digestion were the specific poison of diphtheria. This might be so if it were true that diphtheria bacilli were found in the membrane and in the membrane alone. This, in fatal cases at least, was not the case, for the lungs almost always contained them, and the spleen very frequently. They regarded the diphtheria poison as a direct product formed by the bacterial cell, and wheresoever there were diphtheria bacilli there the poison appeared in the membrane, and in the lungs it must be present in large amount. The poison was absorbed as such and found its way into the spleen, where, moreover, bacilli might be actually present. The albumoses they considered to be contaminating, which appeared in many infective processes, and were carried down by the precipitant together with the true toxic bacterial product. The albumose theory, as stated by Dr. Martin, could hardly stand, unless the absence of bacilli beyond the membrane was established, and even then it was not quite convincing. Clinically they thought their observations were of importance, since they proved the necessity of using the antitoxin energetically in all serious cases of diphtheria, the amount of toxine when, for instance, the lungs were infected which had to be counteracted being enormous.—Dr. WILLIAM HUNTER expressed the view that the observations just recorded went very far to show that so far from an "escape" of diphtheria bacilli being the exception, as hitherto supposed, it was rather the rule. It was certainly a remarkable fact that they were present in such numbers in the lungs. Their presence in the spleen was specially interesting in that it afforded a more satisfactory explanation of the presence of albumoses in that organ than the view originally put forward by Dr. Martin, that a ferment formed at the seat of infection in the throat was carried to the spleen, and there induced a formation of poisonous albumoses independent altogether of organisms.—Dr. GOODALL asked if Dr. Kanthack had examined many cases in which the larynx was not involved. It was common to see severe cases of diphtheria in which nothing was found in the pharynx, larynx, or lung, and which nevertheless terminated fatally. He also inquired if a distinction had been made as to the varieties of diphtheria bacillus which had been isolated from each case.—Dr. KANTHACK, in reply, said that his paper included statistics of the work of others, amounting in all to over 100 cases, and in nearly all diphtheria bacilli were found in the lungs, and the lungs in many cases were noted as appearing perfectly normal. The spleen was not usually enlarged, and its naked-eye appearance was no criterion as to the presence or absence of bacilli. Four of the cases in his own series were not laryngeal, and yet diphtheria bacilli were found in the lungs; and this experience had been confirmed by others. The bacilli had been cultivated from the patients during life and were found highly pathogenic to guinea-pigs.

Mr. RAYMOND JOHNSON brought forward a case in which Extensive Hæmorrhage was associated with the presence of Pyogenic Micro-organisms. A boy aged fifteen years came under treatment for an illness of three weeks' duration, which began with painful swelling of the region of the left knee. Within a week of the onset similar symptoms were referred to the right hip and the right shoulder. The swelling about the knee had been incised and pus evacuated. When first seen the boy was very ill and his temperature 100°F. There was distension of the left knee-joint and an incision exposed bare bone on the tibia; the right buttock was occupied by a tender fluctuating swelling, and there were redness and swelling over the outer third of the right clavicle. The knee, which contained thin pus, was drained and a sequestrum subsequently removed from the tibia; the inflammation of the clavicle subsided without suppuration. The supposed abscess in the buttock proved to be an extensive extravasation of blood extending to the back of the femur, on which there was a small bare patch. The fluid in the left knee and the blood extravasated about the right femur both contained the staphylococcus pyogenes aureus in abundance. The case was one of multiple infective bone inflammation, and the view was expressed that the extravasation of blood about the femur was the result of hæmorrhage occurring in the very earliest stage of suppuration beneath the periosteum. There was no support for the possible explanation that the organism was merely growing in blood extravasated as the result of injury or other cause. It was pointed out that, had the nature of the case not been clearly indicated by the other lesions, the relation of the hæmorrhage to the presence of pyogenic micro-organisms might easily have been overlooked. Reference was made to a communication brought before the society by Mr. Watson Cheyne in 1884 on two cases of idiopathic purpura hæmorrhagica in which micro-organisms were found. In one case small bacilli and in the other streptococci were found in the capillaries around the hæmorrhages, and it was suggested that the latter resulted from the blocking of small vessels by plugs of the micro-organisms. The present case was brought forward in the hope that it might serve as a further inducement to the bacteriological investigation of cases of spontaneous hæmorrhage.—The PRESIDENT said that several cases of hæmorrhagic periostitis had been described and figured by Mr. Thomas Smith.—Dr. KANTHACK said that he had examined three cases of purpura hæmorrhagica; two of them were hæmorrhagic effusions in the course of diphtheria; in one pneumococcus and in the other streptococcus were found. In the third case nothing was found clinically to account for the hæmorrhages, but in the blood and spleen were found micro-organisms like the diphtheria bacillus. Dr. Gee had observed that if careful post-mortem inspection was made of bodies dying of purpura hæmorrhagica in which no other lesion was diagnosed during life evidences in the throat suggestive of diphtheria might be discovered.

Dr. PYE-SMITH showed a specimen of Syphilitic Arteritis of the Ascending Aorta, and he wished to call attention to the nature of the lesion. The patient, a man aged thirty-two years, was admitted to Guy's Hospital last December with signs of severe aortic obstruction and regurgitation. There was no history of rheumatism, chorea, or of scarlet fever, and it was not likely to be ordinary atheroma, as the patient was young, was not athletic, and his work was very light. As to syphilis, there were no signs, and the history with regard to this was defective. He had been ill for only three weeks, and died after being a fortnight in hospital. Post mortem the aortic valves were found to be deformed, and there was a patch of recent arteritis in the ascending aorta. The patch was soft, injected, and had a swollen edge with a crescentic margin, which reminded him of a secondary specific skin eruption. There was no atheroma elsewhere, but the testes showed decided fibrous degeneration. It had been said that aneurysm in woman was always due to syphilis, but the last two cases he had seen were against this view. In one the patient was a strong woman who had been a carrier of milk-pails for years, and in the other there was no sign or probability of syphilis.—Dr. NORMAN MOORE asked if strain could produce these results in the aorta. He was convinced that very few cases could be explained in that way. He felt sure that the whole subject wanted investigation afresh. In the majority of cases the cause would be found to be syphilis; in a few infection from endocarditis; and in others possibly infection, but certainly some cause other than strain.—Dr. ROLLESTON asked whether there was a specific form of arteritis. Was ordinary atheroma different from syphilitic arteritis?

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He referred to a case in which the aorta was thickened and its lumen diminished while the intima was intensely swollen and translucent looking; in that case there was testicular evidence of syphilis. He cut sections and found that the vasa vasorum were surrounded by small masses of cell exudation. He then cut sections from cases of non-syphilitic atheroma, and he found that the sections showed much the same thing, and Dr. Mott and Dr. Hebb had confirmed this observation. He thought, therefore, that there was no special form of atheroma due to syphilis. The case shown appeared to be subacute, if not acute, and he thought it might be an early stage of an ulcerative aortitis.—Dr. PYE-SMITH, in reply, said that he could not admit the view that it was a case of septic infection. There was less deformity, less calcareous induration, and more soft thickening than was usual in atheroma. He was not disposed to give up the idea of strain as a cause, for there were certain broad facts in favour of that view. The disease was most common in males; it appeared at the most active period of life; it affected the parts of arteries most exposed to strain, such as the popliteal, but this view did not exclude other causes which might be at work.

Dr. PYE-SMITH then brought forward a specimen from a case of Cancer of the Colon associated with Membranous Colitis. The subject was a spare-looking woman aged fifty-nine years, who was admitted with enormous distension of the abdomen, and she was passing membranous casts. It was obvious that she had stricture of the large intestine, and her age and other signs pointed to the existence of an annular malignant growth in the colon. She passed membranous shreds eighteen inches in length, flat pieces and cylinders, which were found to be composed of mucin and entangled a few leucocytes. Their great abundance suggested a stricture high up; she refused colotomy, and died without relief. Post-mortem examination revealed an annular stricture in the sigmoid colon, and the gut above it was distended and hypertrophied. The casts were found below the stricture, but not above it, and they all appeared to have been formed in the lowest segment of the sigmoid colon and in the rectum. The mucous membrane was normal and its epithelium intact.

Dr. G. NEWTON PITT showed a specimen of Epithelioma of a Pharyngo-œsophageal Pouch which had produced a fatal obstruction and death from exhaustion. The pouch, which was an inch and a half long, opened on the posterior wall of the œsophagus at the level of the cricoid cartilage and towards the right side. On the anterior wall of the pouch there was an epitheliomatous growth which had not spread through into the œsophagus itself. The specimen was removed from a man aged fifty years, who at the age of twenty-five was laid up for a year with a very severe sore throat. Two years ago he first noticed a slight difficulty in swallowing, and that frequently he required to take his meals alone, as much of his food was returned and had to be expectorated. This difficulty had been greater for the last year, and during the last two months he had only taken liquids, and with difficulty. For the last three weeks of his life even fluids could not be swallowed. He refused operation and was fed per rectum. The obstruction was found just below the cricoid cartilage, and a bougie could not be passed beyond this level. The pouch was at the seat where these diverticula generally occurred and were somewhat infrequent, but he had not found a record of an epitheliomatous growth in one of the pouches, although it was not remarkable that such degeneration should occur.—The PRESIDENT said that three years ago he looked through the literature of this subject, but he could not find one case which terminated in malignant disease. An examination of museum specimens and of published cases would point to the fact that cases of œsophageal pouch were rare, but many must have occurred which had not been published. He himself had operated on two cases and he knew of two or three others. Some of these cases had been regarded as strictures and had died of starvation.—Mr. TARGETT said it was possible that the pouch was the result of the malignant obstruction, but he had carefully examined this case and did not think it had arisen in that way. The pouch probably existed first and the malignant growth occurred afterwards; the same thing had been noted in the case of sacculi in the bladder. Though these growths in vesical sacculi were usually cancerous, there was one labeled as sarcoma in the museum of Middlesex Hospital. In that instance the growth was situated entirely within the sacculus.

Dr. G. NEWTON PITT showed a specimen of an Atrophied Kidney with a Congenital Stricture of the Ureter. The kidney was smooth on the surface and practically normal, there being no appreciable hydronephrosis. About half an inch down the ureter there was a dense fibroid stricture admitting only a probe, and beyond this it was normal. The opposite kidney was somewhat hypertrophied. The specimen was removed from a young adult, who gave no history of any calculus or of traumatism of the abdomen. On two other occasions Dr. Pitt had noticed strictures of the ureter without obvious cause at the same spot, and he raised the question whether such strictures were not due to some congenital defect.—Dr. ROLLESTON said that in cases of unilateral hydronephrosis he had often seen a kink at about an inch from the commencement of the ureter, although he had not discovered a cause for it.—Dr. HERRINGHAM said that in St. Bartholomew's Museum there was a specimen of stricture of the ureters high up in a man who also had a stricture of the urethra, and he wondered if it might have been caused by the upward extension of gonorrhœal infection.—Dr. PITT replied that in one case the patient was an infant, and the cause there could not have been gonorrhœal.

The following card specimens were shown:—

Mr. RICHARD LAKE: Urinary Calculi from an Ox.

Dr. ROLLESTON: Metastatic Growth in Breast.

HARVEIAN SOCIETY OF LONDON.

Children's Spines.

A MEETING of this society was held on Jan. 9th, the President, Sir JOHN WILLIAMS, Bart., being in the chair.

Mr. EDMUND OWEN read a paper on Children's Spines, healthy, unhealthy, and otherwise. He began by calling attention to the lines and the workings of a healthy backbone, and illustrated his remarks by diagrams and photographs taken from pictures in the National Gallery and other collections. He said that the only way to examine the spine was to have the child stripped naked and lying on a flat surface. After this, the child was to sit up and bend his head down towards his knees as in the attitude of Flandrin's "Bather" in the Louvre. Then the amount of extension should be tested, and, lastly, the boy should be made to stand up, and, his pelvis being fixed by the hands, he should be made to turn and look behind him. In this way every vertebra was disturbed upon its fellow. A child who could do this certainly had no spinal osteitis. A cast was shown of the antique statue of "Lo Spinario"—the boy who is extracting a thorn from the sole of his foot. In this cast the spine is seen bent and rotated in an attitude which no diseased spine could possibly assume. The methods of examining a doubtful spine for caries, which consisted in tapping the heels or the spinous processes or in applying a hot sponge along the spinal groove, were mentioned for the sake of condemning them, though there was a good deal to be said in favour of the application of gentle pressure downwards upon the head. Inflammation of the spinal bones was always of tuberculous origin, and the treatment was comprised in one word—rest. As regarded the class of spines that were neither healthy nor yet unhealthy a special class was suggested for them, and it seemed to be a growing class, for some practitioners spoke of, and dealt with, mere weakness of the spine as if it were a disease by itself and not a result of constitutional defects in the child. The spine was apt to be regarded as something separate from the child itself, and an unnecessary amount of fuss was being made about it. Mr. Owen gave several instances of cases of slight deflection of the spine which had been brought to him by mothers who had been needlessly alarmed by the outlook foreshadowed to them in case they declined to hand over their children to immediate and prolonged surgical treatment. He remarked that St. Paul had cautioned people against leading captive silly women and he thought that the caution was as much wanted to-day as it was in the Apostolic times. It was apparently a very easy matter to lead a mother into captivity when contingent advantages to her child were at stake, but it was the duty of every member of the medical profession to set his face against anything which had even a suspicion of being opposed to squareness of conduct and uprightness of intentions. He did not for a moment think that anyone was knowingly and intentionally dishonest in these matters, but he had no hesitation in saying that by constantly looking at the

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spine as if it were a thing apart from the rest of the child a practitioner was apt to lose all sense of anatomical perspective and clinical proportion.

Mr. NOBLE SMITH, Mr. PAGE, and Mr. PEYTON BEALE took part in the discussion of the paper.

The annual meeting and conversazione of the society was held on Jan. 16th, at 8 P.M., in the Stafford Rooms, Edgware-road, W., the PRESIDENT being in the chair.

The annual reports of the council and treasurer were read and unanimously received. The President then delivered his annual address, in the course of which he dealt with the changes that had occurred in the various examining bodies with regard to their examinations in midwifery, showing how some thirty years ago this subject received but scant attention at their hands. He pointed out how important it was that those who presented themselves for examination in midwifery should be able to satisfy the examiners as to their knowledge of the shape and diameters of the female pelvis, the anatomy of the pelvic organs, and the size of the fœtus at various times during gestation and particularly at term. He said that upon these data rested the science and art of midwifery, and they were the first essentials of that science. He then went on to describe the changes which had taken place during the last forty years in various operations — turning, the use of the forceps, craniotomy, and Cæsarian section—and showed how the recognition of the relative sizes of the pelvis and of the fœtus had influenced the manner in which these operations should be undertaken and the period at which they should be performed. He concluded with a criticism of the term "meddlesome midwifery," and showed how proper interference undertaken at the proper time, during gestation or labour, might be justifiable, and even imperative, so long as its aims were the saving of the life of the mother and child. The result of the ballot was then announced, all the officers upon the list having been duly elected.

Dr. FARQUHARSON, M.P., in proposing a vote of thanks to Sir John Williams, the retiring President, congratulated the Harveian Society on having obtained the services of so eminent a member of the profession and so excellent a President. He understood that during his presidency the society had added thirty-seven new members to its list, and had now a balance of £65 in hand, these facts of themselves showed how admirably Sir John Williams had presided over the Harveian Society.

The motion was seconded by Dr. LEWERS, and carried unanimously.

Mr. EASTES proposed a vote of thanks to Mr. H. Cripps Lawrence, the Hon. Treasurer, and stated that the society was now in a more flourishing condition than it had been for years past. This was in great measure due to the able manner in which Mr. Lawrence had controlled the funds.

A vote of thanks to the retiring members of the Council was proposed by Dr. HARE and seconded by Dr. MORTON. Both motions were adopted.

Sir JOHN WILLIAMS proposed a vote of thanks to the retiring secretary, Mr. Peyton Beale. He said that Mr. Beale had been a most indefatigible secretary. He had provided an excellent series of papers during the session, and had spared himself no trouble in arranging for the various meetings and social gatherings. He referred especially to the annual dinner of the society, which had been such a marked success. The members present had only to look at the walls of these rooms to realise the energy and good taste which he had expended in the performance of the duties of senior secretary.

The motion was seconded by Dr. HILL and carried unanimously.

Mr. PEYTON BEALE briefly replied.

Sir JOHN WILLIAMS then declared the conversazione open and left the chair.

A collection of sixty-five sketches in water colours by Miss S. Sophia Beale was exhibited. These included sketches of Poole Harbour, London, and Honfleur, and were much admired by the members and their friends. There was some excellent singing by Mr. Walter Hett, Mr. P. G. L. Webster, Mr. J. W. Myles, and Mr. Staples, Dr. Maguire accompanying on the piano. Dr. Haydon played a violin solo, and Mr. E. W. Roughton a violin obligato to one of the songs.

The following were elected officers of the society:—President: Mr. J. Knowsley Thornton. Vice-Presidents: Dr. W. Hill, Dr. E. Clifford Beale, Mr. E. W. Roughton, and Dr. Lamb. Treasurer: Mr. H. Cripps Lawrence. Hon. Secretaries: Dr. Cagney and Dr. F. W. Cock. Council: Sir John Williams, Bart., Mr. R. S. Armstrong, Mr. E. Bartlett, Mr. Peyton Beale, Dr. Boxall, Mr. Henry Davis, Mr. George Eastes, Dr. L. Guthrie, Mr. F. W. Hazel, Mr. S. Hurlbutt, Mr. Henry Juler, and Dr. J. E. Squire.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on Jan. 9th, Mr. CHARLES KING being in the chair.

Dr. ARTHUR WILSON showed the specimen of a Stomach with an Ulcer which had Perforated and given rise to fatal septic peritonitis. The symptoms had appeared suddenly and were followed by the fatal termination in about thirty-six hours, but not before a diagnosis had been made which was found afterwards to be correct. The question of surgical treatment arose, but on account of the very weak condition of the patient it was decided not to subject her to operation.—In the discussion following this case Mr. MOWER WHITE expressed himself to be in favour of operating in nearly all cases such as this on account of the extremely unfavourable prognosis if the patient is left to the natural course of events. The period of time intervening between the last meal taken by the patient and the nature of the food are circumstances that would exercise much influence over the results of an operation should such a proceeding be decided on.—Mr. MACREADY also spoke on the question of operation, and emphasised the difficulties lying in the way of a correct diagnosis.

Mr. MOWER WHITE and Mr. TRAER HARRIS brought forward the case of a man who had suffered from Carcinoma of the Floor of the Mouth involving the Lower Jaw-bone. The growth was freely removed along with the anterior portion of the lower jaw, and a certain number of enlarged glands in the sub-maxillary space were also removed. Mr. Harris subsequently fitted to the remaining portion of the jaw and the surrounding tissues an apparatus which removed the appearance of deformity and, being provided with teeth as in an ordinary artificial plate, could be used in mastication. The patient seemed to be in good health after the interval of eight months, but Mr. White pointed out the existence of what appeared to be an enlarged gland below the angle of the jaw, which might be caused by the recurrence of the growth in that position, and which was to be promptly treated.

Dr. LINDLEY SCOTT brought forward the case of a man of about sixty-four years of age who had suffered from Chronic Gout for the greater part of his life, and who had developed enormous Concretions of Urate of Soda in relation with the articulations of his hands and feet. One of these lying over the metacarpo-phalangeal joint of the right index finger not only had produced almost complete immobility of that articulation, but was also very inconvenient on account of its situation. This concretion had attained the size of a large walnut, and there were numerous smaller masses both on the hands and feet. Dr. Scott inquired whether it would be possible to remove these masses successfully. Mr. Wadd mentioned that in a case with very similar manifestations coming under his observation, Mr. Clutton had operated and removed the deposits of urate of soda with excellent results, but that the patient he referred to seemed to be in better general health than the case brought forward by Dr. Scott.—Dr. BURNET expressed his opinion as being unfavourable to operation, especially in this case, on account of the enfeebled condition of the patient.

Dr. JAMES GALLOWAY presented two cases of Lupus Erythematosus in Women, showing the results of different modes of treatment. The first case was that of an unmarried woman of middle age who had been treated throughout by local applications of the liquor hydrargyri nitratis acidus, with the result that all the disease had disappeared from the face, and the resulting scar was so superficial that by gaslight it was difficult to distinguish. The condition of the face could be compared with the scalp, where the disease was still present, although in a very chronic form. A small spot had reappeared on the face after years of quiescence which it was proposed to treat in the same manner. The second case, in a young married woman, had been of much more recent

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development, and on account of pregnancy she had been treated by the internal administration of ichthyol. The result up to the present time had been exceedingly satisfactory, for the disease, which had previously to treatment spread over large areas on both sides of the face, had almost completely disappeared, and could be seen only in a limited area over each malar bone. Dr. Galloway showed a third case of Chronic Persistent Œdema of both Lower Eyelids in a young woman twenty-two years of age, the sequela of an attack of facial erysipelas eight years previously.

ÆSCULAPIAN SOCIETY OF LONDON.

Exhibition of Cases and Specimens and an Apparatus for the Rapid Measurement of Refraction.

A MEETING of this society was held on Jan. 17th, Dr. OSTLERE, Vice-President, being in the chair.

Dr. J. R. T. CONNER showed a girl aged sixteen years, the subject of Bazin's Disease on both Calves, ulceration having taken place on the left. This was certainly not syphilitic, though of atonic type. There was also atrophy of the right deltoid biceps and triceps, and in a less degree of the right leg, due probably to an attack of infantile paralysis when two years old.

Mr. S. PAGET showed the following cases:—1. A boy with Tuberculous Disease in the Bones of both Feet, requiring Syme's amputation of the left, amputation of the fourth right toe, and scraping of diseased bone at other points. He had now recovered. 2. Large Perinephric Abscess in a boy, the result of being run over. Slight initial hæmaturia indicated some renal injury. Recovery was perfect. 3 and 4. Two boys who had also been run over. No rib injury could be clearly made out, but signs of pneumothorax appeared. Both recovered satisfactorily.—Mr. PAGET also showed—(1) a Cyst removed from within the lower jaw of a child and containing a Molar Tooth and a Papillomatous Growth; and (2) a specimen of Œsophageal Epithelioma. There was some dilatation at the seat of the growth, little thickening, and no true occlusion. A sinus passed upward and backward from the gullet to a fistulous opening in the trachea. Death resulted from dyspnœa, probably due to passage of food through this opening.

Mr. N. DAVIDSON showed an apparatus for the Rapid Measurement of Refraction. This consisted of a revolving circular frame, containing a series of spherical plus and minus lenses which could be brought in turn before the eye. By means of a special arrangement of revolving types (also shown) it was possible to estimate degrees of astigmatism by means of the spherical lenses alone.

NORTH-WEST LONDON CLINICAL SOCIETY.

Exhibition of Cases and Specimens.

A CLINICAL meeting of this society was held on Jan. 15th, Dr. WM. BOULTING being in the chair.

Dr. CAGNEY showed a case of Torticollis, in which for thirteen years the spasm had been limited to the arm, and which had consequently been mistaken for writers' cramp.—Mr. MAYO COLLIER, Dr. GUTHRIE, and Dr. CAMPBELL discussed the case.

Dr. GUTHRIE showed an infant aged nine weeks in whom the flat muscles of the abdomen externally to the recti were congenitally absent. He ascribed the condition to ascites in utero.—Mr. MAYO COLLIER and Dr. CAMPBELL dissented from this view of the causation.

Mr. JACKSON CLARKE exhibited a man upon whom he had performed Bassini's operation for the radical cure of hernia.

Dr. CAMERON showed a case of Optic Atrophy caused by a recent attack of cerebro-spinal meningitis which was described in detail.—Dr. CAGNEY, Dr. CAMPBELL, Mr. JACKSON CLARKE, Dr. GUTHRIE, Dr. ALEXANDER MORISON, and Dr. LONG took part in the discussion.

Dr. CAMPBELL showed the heart from a case of Extreme Mitral Obstruction, and pointed out the mechanical advantage of the funnel-shaped orifice. He also showed the granular kidneys of a girl aged seventeen years who had died of that disease.—Dr. GUTHRIE spoke of having observed the condition in young children.

Mr. HOSFORD showed a case of Congenital Ichthyosis and microscopical specimens.

LIVERPOOL MEDICAL INSTITUTION.

Traumatic Epilepsy.—Rapid Gangrene of a Hernial Sac.—Leucocythæmia.—Exhibition of Cases.

A MEETING of this society was held on Jan. 16th, Dr. RICHARD CATON, President, being in the chair.

Mr. NEWBOLT related a case of Traumatic Epilepsy. The patient had a severe injury to the right side of the head in 1888. He was trephined at that time in America, bone and brain substance being removed. He remained well for two years, but had hemianopia. At the end of this time epileptic fits occurred at intervals varying from two weeks to two months and a half; the fits invariably started in the left wrist. On admission there was a deep depression on the right side of the skull three-quarters of an inch deep, two inches from above downwards, and an inch and a half from before backwards. The centre of the depression was two inches above the right ear. There was pulsation at the bottom of the depression. Mr. Newbolt trephined over the wrist centre, and removed a sharp spicule of bone. Since the operation (one year and ten months) the man had three fits.—Mr. R. BICKERSTETH, Mr. SHEARS, and the PRESIDENT made remarks.

Mr. ROBERT JONES related a case of Rapid Gangrene of a Hernial Sac. The patient, a man aged forty-eight years, had been subject to a reducible hernia for nine months and had worn a truss. One day after a full meal he sneezed, and suffered great agony, having ruptured the bowel into the sac. An operation was performed four hours afterwards, the sac was exposed and was perfectly black, though it partially retained its consistence and its shining peritoneal appearance. The bowel was congested and a tear three-quarters of an inch long was found in it. The gangrene was strictly limited to the sac. There was no strangulation of the sac or contents.

Dr. BUCHANAN read a paper on Leucocythæmia, giving a brief *résumé* of the etiology and clinical features of the disease and discussing the histology of the normal blood, particularly in relation to the leucocytes. As a basis for comparison in diseased conditions the classification of the wandering cells laid down by Kanthack and Hardy was adopted. Comparing blood in six cases of leukæmia examined by the most approved methods two forms may be recognised:—1. That characterised by great leucocytosis and the presence of certain cellular elements not usually found in normal blood. (*a*) Large atypical eosinophile cells with coarse granules in extraordinary numbers; (*b*) large uninuclear cells, "myelocytes," similar to normal marrow cells; (*c*) transitional forms from (*b*) through (*a*) to the ordinary finely granular eosinophile cell, the latter variably diminished or increased; (*d*) forms of (*c*) devoid of granules; (*e*) lymphocytes and small basophile cells; and (*f*) many nucleated red blood corpuscles of the megaloblastic and normoblastic type. 2. Lymphatic form: great leucocytosis with (*a*) small lymphocytes in great abundance; (*b*) large hyaline cells increased; (*c*) transitional forms from (*a*) through (*b*) to large atypical basophile cells; (*d*) nucleated red blood-corpuscles increased; (*e*) eosinophile cells, coarse and fine, diminished; and (*f*) myelocytes. Mixed types of either class may exist. The use of colour preparations of the blood is necessary to distinguish either form. The paper was illustrated by lantern-slides.—Dr. GLYNN remarked upon the rarity of the lymphatic form of leukæmia, and considered it curious that it should be so, since if the disease originated in some form of irritation the lymph glands seemed more likely to be exposed to such irritation than the spleen or bone marrow. He had examined the blood in several cases of pneumonia for leucocytosis, but was not at present satisfied as to the value of this as an aid to prognosis in such cases.—Dr. ABRAM said Virchow showed that the thymus gland was persistent in leukæmia, and that this explained the presence of a mediastinal growth in leukæmia. He thought the distinction of feebly and strongly oxyphile granules was useful, as the former were mainly increased in leucocytosis, and the latter in leukæmia. Leukæmic blood is deficient in alkali and contains much lecithin. He said there is an excess of uric acid in the urine of leukæmic patients which agrees with the view that uric acid is derived from breaking down white corpuscles.—Professor SHERRINGTON and Professor BOYCE also took part in the discussion

Mr. R. W. MURRAY showed two children on whom he had

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operated for Extroversion of the Bladder. He had used lateral skin flaps so arranged that their raw surfaces were next the mucous membrane of the bladder. He greatly preferred this method to the more usual plan, as it was much more simple and there was no fear of phosphatic deposit, which was a frequent cause of annoyance when the reversed skin flap was employed, owing to the growth of hair in this flap.—Mr. RUSHTON PARKER remarked that he had operated successfully in three cases of boys by a method devised by Mr. Greig Smith, the patients after operation sitting in a hip bath of warm boracic lotion. In each case there was union by first intention. In a fourth the flaps sloughed.—Mr. ARTHUR WILSON suggested that for those in the wealthier classes a skilful surgical mechanism was as useful as the surgeon. He thought that the operation described by Mr. Murray was a good one, although in the only case in which he had performed it the result was not entirely satisfactory.—Dr. IMLACH asked whether it was better to operate directly after birth in cases of extroversion of the bladder or whether the child should wait until two years old.

Mr. ARTHUR WILSON showed a specimen from a case of Secondary Sarcoma of the Lungs; the primary growth was in the internal condyle of the femur.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—Fibroid Tumour of the Uterus.—Villous Growth of the Bladder.

AN ordinary meeting of this society was held on Jan. 14th, Dr. A. BRONNER, President, being in the chair.

Microscopical specimens were shown by Dr. MAJOR and Dr. CHAPMAN.

Mr. HORROCKS showed a man from whose foot he had Removed the Astragalus twelve months ago. The patient was now able to flex and extend the ankle, and the arch of the foot was good. He was first seen when sixteen years of age, the ankle having been swollen for two years. A transverse dorsal incision was employed, and, in addition to the astragalus, the cartilages over the scaphoid, tibia, and fibula were removed. The wound was packed with sublimate gauze, which was removed on the second day. A month later the patient was sent out of hospital with plaster on the leg. The tendons divided by the transverse incision were not sutured, the ends becoming adherent to the scar.

Dr. CHAPMAN showed a specimen of Tuberculous Kidney taken from a severe case of Lupus. The patient was a woman aged twenty-two years who had suffered from extensive lupus of the face, arms, and body. Scraping under an anæsthetic had several times been done. Slight hæmaturia was present during the last year of life. Post mortem the left kidney was full of cheesy material and there were scattered tubercles in the lungs.—The case was discussed by Dr. HINE, Dr. HONEYBURNE, Mr. HORROCKS, Mr. CAMPBELL, Mr. APPLEYARD, Mr. WILMOT, and Dr. H. BRONNER.—Dr. CHAPMAN replied.

Dr. SHIACH showed for Dr. RABAGLIATI a Fibroid Tumour of the Uterus which had been recently removed by Abdominal Hysterectomy. The patient died on the third day.

Dr. SHIACH showed for Mr. ROBERTS a large Pyosalpinx which had recently been removed, the patient making a good recovery.

Mr. CAMPBELL showed the Lungs from a case of Acute Tuberculosis.

Mr. APPLEYARD read notes on a case in which he had removed a Fibroid Tumour of the Uterus, the patient making an excellent recovery. The tumour weighed 14 lb. 11 oz.—Mr. APPLEYARD also read notes on a case of Villous Growth of the Bladder. The patient was a young man aged nineteen years who had occasional attacks of hæmaturia during three years. Six months ago he had frequency of micturition, albuminuria, incontinence of urine at night, and occasional dribbling during the day. The bladder was sounded under an anæsthetic, and afterwards a small papillary growth was found in the urine. On Dec. 5th, 1895, supra-pubic cystotomy was performed, and a small pedunculated growth was found, ligatured, and removed. The wound was drained and the patient made an excellent recovery.—Mr. HORROCKS, Dr. KITCHIN, and Dr. HONEYBURNE discussed the case.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held in the Royal Infirmary, Newcastle, on Jan. 9th, Dr. J. DRUMMOND, President, being in the chair.

Dr. J. DRUMMOND showed a patient with Supernumerary Nipple. In addition to the ordinary breast there was a well-marked nipple in the seventh costal interspace on either side.

Dr. LIMONT showed a case of Keloid in a young man who squeezed an acne spot on his chest five years ago. A red spot developed and after remaining much the same for three years it began to enlarge, until now there is on the breast a large, hard, raised pink patch free from vessels and constantly itching.—Dr. LIMONT also showed a boy with a Keloid Growth in the Scar left after Excision of Tuberculous Glands.

Mr. PAGE showed a man forty-three years of age who has recovered from an extensive Fracture of the Pelvis, with Rupture of the Bladder, caused by a weight of two tons falling upon him. The patient passed urine normally on the twenty-ninth day and made a good recovery.—Mr. PAGE also showed a man with a large Indentation in his Skull the result of a Compound Depressed Fracture caused by a fall of metal twenty years ago. There was an entire absence of disagreeable symptoms.

Dr. OLIVER showed a patient whose entire Uterus had been removed on account of Excessive Hæmorrhage. On section the enlarged fundus was found to be the seat of a growth which microscopically is an adeno-sarcoma.—Dr. OLIVER also showed a Kidney from a case of Hydronephrosis occurring in a man whose illness began with a strain, followed by pain and vomiting. Twelve months later a large swelling appeared in his right abdomen and blood in his urine. The cyst being tapped, the fluid removed contained only broken-down blood cells, without any urea or any of the reactions of pancreatic fluid. The cyst rapidly refilled, and on opening the abdomen the tumour was found to be a cystic kidney and was excised. The fluid now contained urea. There was no calculus.—Dr. OLIVER also showed a case of Hysterical Hemiplegia, the patient being a girl who fell down a month ago in consequence of an attack of vertigo. After the fall she developed paralysis of the right leg, arm, and face with anæsthesia of the face. Anæsthesia, however, is rare in functional paralysis.

Mr. MARTIN showed a specimen of Spina Bifida as large as a child's head removed from the Cervical Region of a child five weeks old. It was incised, when fifty-two ounces of fluid escaped; the pedicle occupying the interval opposite the fourth and fifth laminæ was ligatured. Five weeks after the operation signs of hydrocephalus appeared, and from this cause the child died six months later.

Dr. MURRAY showed a Spina Bifida from a Child six weeks old who died from bronchitis. The central canal of the cord, dilated to the size of a goose quill, entered into the sac.—Dr. MURRAY also showed a specimen from a case which died after the injection of Morton's fluid. It was an example of Meningomyelocele.

Dr. HUME showed a Large Cyst extracted from the Thyroid Gland. It had caused pressure symptoms and great discomfort. The operation was almost bloodless, for as soon as the blue venous-looking wall of the cyst was exposed the operation was completed by the finger. A good recovery followed. — Dr. HUME also showed a large Multinodular Fibroid Uterus removed by total abdominal hysterectomy in October, 1895. The abdominal wound suppurated and had to be dressed daily. Five weeks after the operation a dose of castor oil was given and was followed by signs of intestinal obstruction. The suppurating abdominal wound was first excised by an elliptical incision and the abdomen was then reopened. The obstruction was due to the passage of coils of intestine under a band formed by the adhesion of a loop of bowel to the abdominal parietes. Recovery after the second operation was uninterrupted.—Dr. HUME also showed another Fibroid Tumour removed successfully by total abdominal hysterectomy.

Dr. MURPHY showed a Calculus removed from the Left Ureter, prolapsed through the urethra, in a woman aged twenty years. A mass resembling a polypus, but consisting of the whole trigone of the bladder, protruded from the

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vulva. The probable explanation was that the bladder had been protruded by violent expulsive efforts set up by urine collecting behind the stone.

Dr. GEORGE MURRAY showed a fresh specimen of Actinomycosis in the jaw of a cow, and Microscopic Preparations of the Ray Fungus. There was no suppuration and the disease was limited to the jaw.

MIDLAND MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—Enlarged Axillary Glands.—A Solid Fibroid Tumour of the Ovary.—Nocturnal Enuresis.

THE fourth ordinary meeting of this society was held on Jan. 15th, Dr. UNDERHILL, the President, being in the chair

Mr. LUKE FREER showed two cases of Relapsed Congenital Talipes Equino-varus successfully treated by Tenotomy, Wrenching, and true Orthopædic Measures. Each patient had been operated upon several times in infancy by tenotomy. There were extensive adhesions, requiring considerable force in each instance. One case was under treatment five months with two wrenchings, and the other seven months with three wrenchings. Considerable leg and hip rotation in each was overcome by daily manipulations simultaneous with those of the feet. In most cases he wrenched with his hands, but in severe cases like these he used Thomas's wrench. He simply used a Scarpa's shoe without elaborate mechanism; the cost of treatment in each case, as an out-patient, was under a sovereign, the time occupied in obtaining a useful limb was not longer than that necessary to make a "tarsectomy stump," and the only argument that could be used against this treatment was the personal and persistent manipulative labour involved, without which success was impossible.

Dr. KAUFFMANN showed a female patient aged thirty-one years who exhibited the early symptoms of Tabes Dorsalis and in whom there was a condition of Gastro-intestinal Catarrh and Constipation. In the belief that the absorption of deleterious substances from the digestive canal might be the cause of the symptoms of nerve-degeneration, the intestinal condition alone was treated, and the girdle sensation and lightning pains vanished, the Argyll-Robertson phenomenon and the absence of knee-jerks persisting. Dr. Kauffmann regarded the case with some hopefulness as to the disease not advancing if the gastro-intestinal tract could be kept in good order.

Mr. HASLAM read notes of a patient aged seventy years who was admitted under his care in July with a Lump in her Right Breast of eighteen months' duration, associated with Enlarged Axillary Glands and having all the characters of a Hard Carcinoma. This was treated by the injection of erysipelas serum, fourteen injections being given in a period of seven weeks in quantities varying from 1 c.c. to 10 c.c. No constitutional disturbance was produced and only comparatively slight local swelling and redness, just enough to mask the previously well-defined outline of the growth. At the time of her leaving the hospital, at the end of September, the tumour was distinctly smaller, and by Dec. 6th it had entirely disappeared.

Mr. HEATON showed the Intestines from a case of Resection of the Bowel for Gangrene in a Strangulated Hernia. The patient was a woman aged thirty-three years, who had suffered for six days from an unrelieved strangulated femoral hernia. Resection of the damaged intestine was performed, and an intestinal anastomosis effected by means of a Murphy's button. The patient died from collapse some twenty-one hours after the operation. The resected portion of intestine was three inches long, and showed in its centre a large ragged hole, involving more than half the circumference of the gut, where it had been cut through by the sharp edge of Gimbernat's ligament. The coil of intestine in which the anastomosis had been performed was also shown with the button *in situ*. The resected ends were firmly united by plastic inflammatory matter, making it somewhat difficult to see where incision had been effected. The new coil was quite water-tight and bore the pressure of two feet of water without leakage.

Dr. PURSLOW showed a Solid Fibroid Tumour of the Ovary weighing two and a half pounds, which he had removed by abdominal section from a single woman aged twenty-six years. There was a considerable amount of free ascitic fluid, but no adhesions had formed. The wound healed by first intention, and the patient left the hospital on the twenty-fourth day after operation.

Dr. CARTER read a paper on Nocturnal Enuresis. He classified the cases of this complaint, when not due to deformity or to gross disease of the nervous system, as depending upon—(1) abdominal peripheral irritation; (2) abnormal irritability of the spinal micturition centre; and (3) abnormal cerebral impressions reacting on the micturition centre. Stress was laid upon the necessity of arriving at an accurate knowledge of the cause in each case to make treatment successful. Dr. Carter laid special emphasis upon the gouty dyscrasia and other conditions of faulty metabolism as producing enuresis. Among specific points of treatment he mentioned as successful the application of a narrow blister on each side of the spine.

EDINBURGH OBSTETRICAL SOCIETY.

Pan-hysterectomy.—Perforating Hydatid Mole.—Uterine Curettage.—Fatal Infantile Jaundice.—Exhibition of Specimens.

A MEETING of this society was held on Jan. 8th, Dr. BERRY HART, in the absence of the President, being in the chair.

Dr. CHRISTOPHER MARTIN (Birmingham) read a paper on Hysterectomy by the Intra-peritoneal Method ("Pan-hysterectomy"), in which the whole uterus, including the cervix, is removed by abdominal section. He referred to the surgeons who had performed it in Germany and America, and also to Jessett and Smyly, who were the first to perform it in this country. He had performed it eight times: six times for myoma, once for rupture of the pregnant uterus, and once in a case of occluded cervix with hæmatometra and pyosalpinx. All his cases had recovered. The patient is carefully prepared, and the skin and vagina are cleansed with antiseptic precautions. All instruments, silk ligatures, gauze sponges, and the water to be used are sterilised. An incision long enough to permit of the easy delivery of the tumour is made, and on its extraction sponges are pushed behind to protect the abdominal viscera. The relations of the tumour to the uterus, the ureters, and the bladder, the position of the ovarian and uterine arteries, &c., are ascertained and a double ligature is passed by a Galabin's pedicle needle through the broad ligament at a spot free from veins about the junction of the middle and upper thirds and midway between the uterus and pelvic wall. By pulling one of the two ligatures forcibly inwards and the other outwards a transverse slit is torn about one inch in length, or it can be made by inserting and expanding a pair of forceps inserted into the ligature opening. The ligatures are tied and the intervening tissue cut through. The ovaries and tubes are removed if possible. The middle third of the broad ligament is similarly treated and the bladder detached from the anterior surface of the uterus until the vagina is reached. This is now opened close to the anterior lip of the cervix. The posterior fornix is next opened. The uterus is now only attached by the lower third of the broad ligaments containing the uterine artery. The tying of these arteries is the most difficult part of the whole operation; usually there is not room for a double ligature, and the ureters must be carefully avoided. After securing the ligature the uterus and its growth are free to be lifted out of the pelvis. Bleeding points should be searched for and secured, the pelvis sponged clear of clot, and all the ligatures cut short except those of the uterine arteries, which are to be drawn into the vagina. Gauze is passed into the vagina and the bladder and other parts allowed to fall over it, but no attempt is made to draw the parts together by sutures. The abdominal wound is closed with silkworm gut sutures. The gauze in the vagina acts as a drain, and is removed on the fifth or sixth day. Dr. Martin does not use the Trendelenburg posture. The uterine ligatures usually separate during the third week and the patient leaves the hospital during the fourth week. There is little shock if the patient is kept warm and the intestines not exposed or handled during the operation. Pan-hysterectomy is a difficult and tedious operation; its dangers consist in chill and shock, slipping of the ligatures with hæmorrhage, damage to bladder or ureters, adhesion of the bowel to the raw surfaces, infection through the vagina, and weakening of the pelvic roof. The last is purely theoretical, and with care other objections are largely

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obviated. In estimating the value of this operation it requires to be compared with the five other procedures employed for a similar condition: 1. Removal of the uterine appendages is safe in small myomata, but unsatisfactory in large ones. Dr. Martin had removed the appendages in twenty cases for small myomata with one death, and in eight cases for large ones with two deaths. In 90 per cent. of those who recover a cure results, menstruation ceases, and the tumour shrinks. In the other 10 per cent. the patient is not cured, the tumour grows, and the symptoms increase. If a low mortality could be assured, small myomata should be treated by vaginal hysterectomy and large ones by abdominal pan-hysterectomy. 2. Hysterectomy, with extra-peritoneal treatment of the pedicle (clamp cases), has a high mortality—from 15 to 30 per cent. Those who recover pass through the dangers of septicæmia, peritonitis, secondary hæmorrhage from the stump, and ventral hernia afterwards. Sometimes it is impossible to get a safe pedicle if the myoma invades the broad ligament or cervix. Recovery is prolonged. In all these respects pan-hysterectomy is superior to the clamp operation. 3. Hysterectomy with intra-peritoneal treatment of the pedicle is attended with such great risks of hæmorrhage, suppuration of the stump, peritonitis, and septicæmia that it is even more dangerous than the clamp operation. 4. Vaginal hysterectomy for small myomata compares favourably as regards mortality with removal of the appendages, and of course it is an absolute cure. It is not advisable when the tumour is larger than the fœtal head. 5. Enucleation per vaginam is usually a risky operation except for small submucous tumours to which access is easy. It is justifiable in cases of large sloughing submucous myomata, but in other cases pan-hysterectomy seems to be a sounder and safer operation. The advantages of pan-hysterectomy are that it absolutely cures the patient and has a lower mortality than either the clamp operation, enucleation, or the intra-peritoneal method of treating the pedicle. It is attended by remarkably little shock, and convalescence is easy and uneventful. The wound heals by first intention, the patient is up in three weeks, and there is very slight risk of a subsequent ventral hernia.—Dr. MARTIN also described the removal of a Uterus twelve hours after the Expulsion of a Perforating Hydatid Mole. One of the portions had grown under the peritoneum, and after the uterus was emptied bleeding into the peritoneum occurred. Pan-hysterectomy was performed, and though the patient was seriously collapsed she made a good recovery.—Dr. BERRY HART said that the case of perforating hydatid mole with intra-peritoneal hæmorrhage was the first case recorded to have been operated on for this condition.—Dr. N. T. BREWIS believed that in some cases the clamp operation was the best. In only one case had he seen a bad ventral hernia. The difficulty in pan-hysterectomy was the ligature of the uterine arteries. He found the Trendelenburg position helpful. If possible, catheterisation of the ureters should be practised to avoid their inclusion in the ligature.—Dr. MARTIN, in reply, stated that seven or eight cases of perforating hydatid mole had been recorded, but all had been diagnosed post mortem. This was the only one operated on. The clamp operation might be the more rapid method if the patient were feeble. He did not adopt the Trendelenburg position as the veins might not bleed and would not then be secured, and blood flowing from the wound would gravitate towards the diaphragmatic part of the abdomen. If the uterus and tumour were well pulled up by an assistant the same effect was obtained as by the Trendelenburg position.

Dr. J. W. BALLANTYNE read a paper on Uterine Curettage: its History, Indications, and Technique. He gave the results of an extensive research into the literature of various countries on this subject, tabulated its indications, and made reference to his own cases.

Dr. J. A. C. KYNOCH described a case of Infantile Jaundice from Congenital Narrowing of the Common Bile-duct. The child showed a yellow skin from the first day after birth, and survived for three months and a half. The liver weighed 8 oz.

Dr. BREWIS showed Three Papillary Tumours of the Ovary and an Ovarian Tumour removed after Rupture of the Pedicle.

Dr. KYNOCH showed an Embryo, 3 mm. in length, from a patient who aborted after nine weeks' amenorrhœa; it had probably become arrested in its growth at fourteen days.

Dr. C. MARTIN showed specimens of Uteri removed by Hysterectomy. One was for a myoma which continued to grow after the menopause, and eventually weighed 15½ lb. Another was from a patient aged twenty-eight years whose appendages had been removed, with the result that the bleeding ceased for three or four months, but then returned, and pan-hysterectomy had to be performed. Another of the specimens was a Cystic Uterus.

Dr. BUIST (Dundee) showed a Fœtus Compressus where the waters of one sac had been expelled six days previously to abortion, and thus the compressed condition had been produced in that time.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

Exhibition of Cases and Specimens.—The Action of the Liver on Fats.

THE fourth meeting of this society was held on Jan. 15th, Dr. ARGYLL ROBERTSON being in the chair.

Mr. CAIRD showed a boy on whom he had operated for Rupture of the Urethra. The rupture had taken place through a fall. On examination the perineum was found to be bruised. There was considerable effusion of blood, but no evidence of extravasation of urine. An instrument could not be passed into the bladder. Mr. Caird cut down on the urethra, but the ruptured portion could not be discovered. The bladder was opened suprapubically and a catheter passed from the bladder down the urethra. The ends of the urethra were stitched and a soft rubber catheter left *in situ*. The patient made a good recovery.

Dr. W. ELDER showed the Brain from a case of Aphasia of seventeen years' standing. The aphasia had been entirely sensory. Seventeen years ago the patient had a thrombosis. The paralysis involved the leg and arm and face; aphasia was also present. The paralysis passed off in nine months, but mental symptoms supervened. The patient ultimately died in a congestive attack. During life the symptoms were limited to the sensory side of the speech centre. She could not converse, her vocabulary being very small. Post mortem the first and second tempero-sphenoidal and the supra-marginal lobes were found to be atrophied.—Dr. ELDER also showed a specimen from a case of old-standing Stricture of the Urethra with Dilatation of the Ureters. The patient had died from uræmia.

Dr. BOYD showed a specimen of Aneurysm of the Aorta with Rupture into a Bronchus. The patient, a man aged fifty years, had died very suddenly when taking a bath. He had gone to the bath-room apparently in perfect health. For fifteen years before the time of his death he had had no symptoms of illness. On opening the chest the two layers of the left pleura were found firmly adherent. There was an enormous aneurysmal dilatation of the first part of the aorta. On the descending arch of the aorta there was a saccular aneurysm which had perforated the two layers of the pleura and passed into the lung. In this sac there was a small communication with a bronchus. There was slight incompetence of the aortic valves, but no marked hypertrophy of the left ventricle. A remarkable point in the case was the entire absence of any symptoms. No history of syphilis could be obtained.

Dr. DAVID GREIG showed a cast of Lupus Verrucosus.

Dr. NOEL PATON read a paper on the Action of the Liver on Fats. He pointed out that while the liver protected the organism against the invasion of the circulation by too large an amount of proteid and carbohydrate, its influence on fats was still doubtful. Much of the difficulty lay in the fact that the chemical method of procedure in this branch of research was so very tedious. The ether extract had formerly been taken as an indication of the amount of fat. Munk, however, had shown that it was necessary to estimate the fatty acids to get correct information. The fatty acids must be isolated and no conclusions drawn from the ether extract. In the liver there was present a higher proportion of the solid acids, and the liver fats had a higher melting point than those of the rest of the body. The chief fatty acid in the liver was lecithin, a body in which one of the hydrogen molecules was replaced by phosphoric acid combined with cholin. Ten per cent. of the solids of the liver were composed of lecithin, and one-half of the fatty acids

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were in this combination. The question arose, What was the meaning of the large amount of lecithin in the liver? In the egg the phosphorus, at first combined as lecithin, was afterwards changed into the phosphorus of bone and nuclein. He thought that the phosphorus containing lecithin in the liver was the first stage in the building up of the nuclein compounds of the body. If there was an increase of fats in the liver, was it due to increased accumulation or increased production? Even after starvation the fatty acids were found to remain constant, while the glycogen disappeared. This was possibly a conservative precaution, the fatty acids combining with the phosphorus to preserve it in order that it might take part in the building up of the nuclein compounds of the body. Again, the question arose, Was the liver a storage place for the fats of the food? To determine this some kittens were fed on cream. The melting point of the fats of cream was lower than the melting point of the fats of the liver. It was found that the fats of cream were stored in the liver, the fats being increased and the melting point lowered. It took from sixty to seventy hours for this alteration to disappear. The influence of starchy foods on the liver fats was next investigated. No relation was found between glycogen and fats. From experiment it was found that on a diet rich in carbohydrates there were more fats in the liver than on a diet poor in carbohydrates. Experiment further showed that as the glycogen disappeared the fatty acids and fats increased markedly. This, however, was not proof that the fats were formed from carbohydrates; the fats might have been brought from the rest of the body. The fats of the body generally had a low melting point, and if a transport of fat had taken place a fall in the melting point of the fats as the glycogen disappeared would be expected. There was, however, no change in the melting point of the fats, and the blood serum did not become milky, as would have been expected had a transference been taking place. Were the proteids a source of fats? It was almost universally taught that proteids were a source of fats, but Pflüger had recently maintained that there was not sufficient evidence of the conversion of proteids into fat. His (Dr. Paton's) experiments supported Pflüger's contention that there was no conversion of proteids into fats. Numerous tables were shown illustrating the experiments from which Dr. Paton's conclusions were drawn.—Dr. GIBSON, Dr. DUNLOP, Dr. GULLAND, Dr. GILLESPIE, and Dr. STOCKMAN took part in the discussion which followed.

Dr. LEITH read a paper on an Inquiry into the Physiology of the Action of Thermal Saline Baths and Resistance Exercises in Chronic Heart Disease (the Bad Nauheim and Schott System), in a discussion upon which Dr. GEORGE W. BALFOUR, Dr. GIBSON, and Dr. JAMES RITCHIE took part.

Reviews and Notices of Books.

Archives de Physiologie. Fondées par M. BROWN-SÉQUARD; Publiées par MM. BOUCHARD, CHAUVEAU, et MAREY. Cinquième Série. Tome VIII., No. 1. Janvier, 1896.

THIS part contains no less than twenty-five articles, of which the following are the more important:—1. The Organs of the Neck derived from the Epithelium of the Branchial Clefts in the Anguis Fragilis, by M. A. Prenant of Nancy. 2. Researches on Heteroplastic Osseous Grafts, by M. A. Mossé of Toulouse (with a plate), in which the author shows that such grafts do live, and enters into details of the mode in which the nutrition of the graft is accomplished. 3. Lac et Laccase: a contribution to our knowledge of diastatic oxidations, by M. G. Bertrand. 4. General Considerations on Calorimetry by means of Baths, by J. Lefèvre. This is an essay on the homogeneity of temperature and on the cooling of large quantities of fluid. 5. On the Coagulation of the Blood and on the Salts of Lime, by M. Maurice Arthus. This is an experimental refutation of the objections of Alexander Schmidt. 6. A Study of the Interferences that can be obtained in the Faradaic Unipolar Excitation of Motor Nerves, by Professor Aug. Charpentier. 7. On the Persistence of Excitability in the Peripheric Extremity of a Nerve after Section, especially in reference to the Vagus divided in the Neck, by M. S. Arloing. 8. Additional Facts Bearing on the Subject of Unipolar Faradic Excitation, by Professor Aug. Charpentier. 9. Physiological Researches on Acetylene, by M. Gréhant. 10. On the Molecular Concentration of the Liquids of the Organism, by M. J. Winter of Paris. 11. Solubility and Activity of the Soluble Ferments in Alcoholic Fluids, by M. A. Dastre. 12. On a Case of Retrograde Degeneration of the Pyramidal Fibres of the Cord in the Anterior and Lateral Columns, by M. J. Déjérine and M. Sottas, with nine woodcuts. 13. On Resorption from, and by, the Kidney, by M. Ad. Huber, showing that the resorption of saline solutions will take place at a pressure much below that of the normal urine at this point. 14. On the Effects of Suppression of the Function of the Liver on Glycæmia in Normal and Diabetic Animals, by M. M Kaufmann, showing that such suppression is followed by a great fall in the proportion of sugar in the blood. 15. On the Relations between the Testis and the Prostate, by M. Félix Legueu. 16. On the Influence of the Nervous System on the Property possessed by the Intravenous Injection of Peptone in suspending the Coagulation of the Blood, by M. Ch. Contejean. 17. On some Disturbances of the Cardiac Rhythm caused by Wounds of the Heart, by MM. Rodet and Nicolas. The effects of pricking the heart at various points with a long sharp needle are shown to be comparatively slight. 18 and 19. On Reflex Pulmonary Vaso-constriction, by M. Ch.-A. François Franck. 20. Some Observations on Aborted Systoles of the Heart, by M. Rodet. 21. On the Variations in Volume of the Extremities in relation to the Respiratory Movements, by MM. L. Hallion and Ch. Comte. 22. On the Hereditary Action and Teratogenous Effect of Microbic Products, by MM. A. Charrin and E. Gley. 23. On the Teratogenous and Toxic Powers of Acetone, by M. Ch. Féré. 24. The Toxines and Growth, by MM. Charrin and Nobécourt. 25. On the Comparative Action of the Salts of Cadmium and Zinc, by MM. J. Athanasiu and P. Langlois.

A System of Surgery. Edited by FREDERIC S. DENNIS, M.D., Professor of Surgery, Bellevue Hospital Medical College; assisted by JOHN S. BILLINGS, M.D., LL.D., D.C.L., Deputy Surgeon General, U.S.A. Vol. I. Edinburgh and London: Young J. Pentland. 1895. pp. 880. $6.

IN so far as regards good paper, clear type, and careful printing, it is certain that this volume of American surgery may well claim to be successful; and the contents do not fall short of the outward appearance. In any treatise which is the work of many authors it must happen that the contributions vary somewhat in excellence, and views more or less conflicting are liable to be expressed, but we have been unable to detect any discrepancies of any moment. The authors are all men who from their positions as teachers of surgery, either clinically or systematically, can claim to be able to speak with authority on the subjects which they have undertaken, and the names of many of them are well known in this country.

The present volume, which is the first of four, commences with a fairly elaborate account of the History of Surgery by Dr. Billings. The earlier history is treated somewhat briefly, though it goes as far back as the Ebers Papyrus; the later history is much fuller and includes notices of the work of most surgeons of any note, British surgeons receiving a very fair share of attention, and the article concludes with a useful and fairly complete list of the journals devoted to surgery. Dr. Councilman of Harvard University has undertaken the article on General Surgical Pathology, including inflammation, and the opinions expressed are those generally received. Dr. Welch of Johns Hopkins University treats of the General Bacteriology of Surgical Affections. The

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discussion on Immunity is hardly so full as we might have expected from the advances made in the study of this subject in the last few years. Some interesting statistics are quoted relating to the numbers and varieties of micro-organisms found in a large number of post-mortem cases at the Johns Hopkins Hospital, and these are instructively compared with the bacteria found in a number of surgical cases. All the micro-organisms of surgical importance are described and many figured. Dr. Nancrede of the University of Michigan deals with the Clinical Aspects of Inflammation and its Results, describing the symptoms, diagnosis, and treatment. He includes in his article an account of burns and wounds. Septicæmia, Pyæmia, and Poisoned Wounds are adequately described by Dr. Carmalt of Yale University. Dr. Collins Warren of Harvard University takes Traumatic Fever, Erysipelas, and Tetanus. He is of opinion that there is a variety of traumatic fever which is in no way due to sepsis, but is the result of absorption of fibrin ferment; if this be so it should vary in relation to the amount of blood-clot in the wound, but we are not aware that this has ever been shown to be the case. A short account of Hydrophobia follows by Dr. Hermann Biggs of Bellevue Hospital Medical College. Dr. Conner of the Medical College of Ohio, Cincinnati, has written an excellent article on Gunshot Wounds, and in it he describes Girdner's telephonic probe for the detection of bullets, an instrument but little known in this country. The editor of the work, Dr. Dennis, has himself undertaken the subject of Fractures and Dislocations. This is the most important article in the volume and is very fully illustrated. Dr. Wood of Philadelphia writes on Anæsthesia and in speaking of the choice of an anæsthetic says: "The surgeon who desires to produce a prolonged narcosis should prefer ether to chloroform, unless there be in the peculiarities of the individual case positive reasons to the contrary." In this the author expresses what is probably the opinion of the majority of surgeons in England. The importance of Antisepsis and Asepsis is dwelt upon in an article by Dr. Gerster of the New York Polyclinic, and the technique is fairly described. Dr. Stephen Smith devotes 140 pages to Operative Surgery, including in his subject the Prevention of Hæmorrhage, the Ligature of Vessels, and Amputations. Among the operations for ligature described is included that of the internal pudic artery; this is surely hardly necessary, as the occasions in which such an operation would be advisable—except for a wound, when the vessel should be tied at the wounded spot—can hardly be imagined. The instruments employed in operation are more fully described and illustrated than is usual; this is a decided improvement. The whole article is excellent.

It is not possible to judge of the whole work from this first volume, but we may say of it that it gives a careful and accurate account of that part of surgery of which it treats, and that it is worthy of the position to which surgery has attained in the great republic whence it comes.

Public Health in European Capitals. By THOMAS M. LEGGE, M.D. Oxon., D.P.H. Cantab. London: Swan Sonnenschein and Co. 1896.

THIS little volume represents Dr. Legge's personal observations on the conditions of public health prevailing in most of the capitals of Northern Europe. He has visited Paris, Berlin, Copenhagen, Christiania, Stockholm, and Brussels, and has studied their sanitary conditions with thoroughness. Some of the material has already appeared in our own pages, Dr. Legge having visited the Scandinavian capitals as one of our special commissioners. Everyone interested in public health in our own country will welcome the concise and admirable account of what has been done abroad which this volume furnishes. It provides much food for reflection; for, though England has been the pioneer in sanitary science, it is indisputable that in some matters we remain far behind the times as compared with our Continental neighbours. It is impossible to read Dr. Legge's account of the municipal night shelter in Berlin, of the "Service des Enfants Assistés" in Paris, of the strict bacteriological control of the Berlin water-supply, and the rigorous system of meat inspection which prevails in most of the cities abroad, without a feeling of astonishment at our own comparative neglect of obvious sanitary precautions. Perhaps the most awakening section in the book is that dealing with the control of the milk-supply in Copenhagen and Stockholm. In Copenhagen the principal milk company acts on the belief that no pains or expense should be spared to avoid the dissemination of tuberculosis by milk; yet it can supply the best milk at a shilling per gallon and pay a dividend of 5 per cent. It is satisfactory, however, to find that there are many matters—notably sanitary law and administration, house drainage, the housing of the working classes, and the accommodation in isolation hospitals—in which England remains far in advance of other countries. Even the general reader will find much in Dr. Legge's book to repay the trouble of its perusal, and to the student of public health it will prove to be a very instructive and useful work.

MAGAZINES.

The Journal of Anatomy and Physiology. Conducted by Sir GEORGE HUMPHRY, Sir WM. TURNER, and Dr. J. E. M'KENDRICK. Vol. XXX., Part 2, January. London: Charles Griffin and Co. 6s.—This part contains:—1. A description of Two Symmelian Monsters, by T. Manners-Smith, Chief Demonstrator on Anatomy, Mason College, Birmingham. In these monsters the two inferior extremities are more or less united. The paper is short but well written. 2. Morphology of the True Limbic Lobe, Corpus Callosum, Septum Pellucidum, and Fornix, by G. Elliot Smith, M.D., Demonstrator of Anatomy, University of Sydney. 3. An interesting abnormality of the Hepatic Artery, with explanation of the condition, by Professor E. Fawcett, of University College, Bristol. 4. Abnormal Distribution of the Nervus Dorsalis Scapulæ, and of Certain of the Intercostal Nerves, by A. Francis Dixon, M.B., Demonstrator of Anatomy, Trinity College, Dublin. 5. Abnormal Anterior Abdominal Vein in a Frog, by A. H. R. Bullers, Mason College, Birmingham. 6. The Bile Salts (Glyco- and Tauro-cholate of Soda) in their Relation to Urea, &c., by G. H. Edgington, M.B. Glasg. These researches, the results of which are described in this paper, were made on a woman with fistula of the gall-bladder, and showed *inter alia* that the quantity of bile discharged varies inversely with the urine, and that the minimum appears to be from about 12 to 4 A.M., and the maximum from 4 to 8 A.M. The specific gravity was about 1011. 7. Notes on the Anatomy of an Anencephalous Fœtus having Three Arms and Three Lower Limbs, by F. G. Parsons, F.R.C.S., Demonstrator of Anatomy at St. Thomas's Hospital. 8. The Influence of a Previous Sire, by A. L. Bell, M.B., Dunfermline, in which doubt is thrown upon the existence of such influence, and several very interesting cases are cited. 9. A Variation that occurs in the Manubrium Sterni of Higher Primates, by Arthur Keith, M.D., F.R.C.S., Senior Demonstrator of Anatomy, London Hospital Medical College. 10. Further Notes on the Brain of Ornithorhyncus Paradoxus, by Professor Sir William Turner. 11. Some Observations on the Topographical Anatomy of the Fourchette, by G. F. Blacker, Assistant Obstetric Physician, University College

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Hospital, showing that the fourchette is formed by the labia minora. 13. The True Capsule of the Knee-joint, by Hubert Higgins; and 14, by the same author, the Geniculate Articular Surfaces of the Femur and Tibia. 15. Urinary Calculi: their Formation and Structure, by Sir George Murray Humphry.

The West London Medical Journal.—This is the first number of the newly founded quarterly journal of the West London Medico-Chirurgical Society, and we congratulate that enterprising body upon a departure which is, in London at any rate, a novelty among medical societies. The opening article is the Presidential address of Dr. Symons Eccles on the Advantages of Oxidation, which was published in THE LANCET of Nov. 9th, 1895. Dr. Donald Hood follows with an interesting paper upon Gastric Ulceration. Mr. Bruce Clarke treats of the subject from the surgical point of view, and Dr. Seymour Taylor from the medical. The rest of the journal is made up of reports of the society's proceedings, a "Mirror" of Hospital Cases, Reviews, Notes, News, and what we consider a very good idea—namely, a complete list, so far as can be given at so early a date, of post-graduate courses for 1896.

The Birmingham Medical Review.—Sir W. F. Wade has an interesting paper upon the Preventive Treatment of Certain Forms of Sick Headache. The form specially treated of is that which apparently arises from some hepatic or gastric disturbance. For this he strongly recommends sulphate of potash. The Middlemore Lecture, by Dr. Wood White, is an instructive paper upon that most important subject, Ulcer of the Cornea.

The Quarterly Medical Journal.—This periodical, which, as a sub-title shows, appeals chiefly to medical readers in Yorkshire and the surrounding counties, opens with a warm and well-deserved tribute to the late Mr. Arthur Jackson. Mr. C. B. Lockwood follows with one of his shrewd and eminently practical papers upon Antiseptic Surgery. Dr. Philip Turner discourses of Soranus of Ephesus, fl. 91–158 A.D., a notable obstetrician. Dr. Sinclair White publishes two interesting and successful cases—one of Laminectomy for Paraplegia due to Spinal Caries; the other of Removal of a limited Sarcoma of the Astragalus. There are other notable papers by Dr. F. M. Pope, Mr. J. S. Curgenven, Mr. W. D. James, and others; also reviews of books and abstracts of papers, &c., from various foreign journals.

The Dublin Journal of Medical Science.—Among the notable original communications to this journal is one upon Colotomy and the indications for it, by Mr. W. T. Wheeler. Dr. John Knott continues his researches into the medicine and surgery of the Homeric poems. The thoughtful address of Sir W. Thornley Stoker, delivered before the surgical section of the Royal Academy of Medicine in Ireland in November, 1895, is reprinted, and is full of valuable hints.

The American Journal of the Medical Sciences has, among a number of other papers, an interesting one by Dr. W. Keen, the subject being Operations upon the Gasserian Ganglion, with four successful and one unsuccessful case.

Appleton's Popular Science Monthly.—The January number this really popularly written journal contains very nearly a score of papers which offer the reader a very wide choice of subjects so that he cannot well miss those nearest his interest. The first article, by Professor Henry C. Bolton, is Part I. of a contribution on the Origin, Growth, and Activity of the Smithsonian Institution. Professor C. A. Young writes on Helion and its Properties, in which he gives an interesting and faithful summary of the present position of our knowledge in regard to this newly discovered constituent. He considers it uncertain whether Professor Ramsay has introduced to the world one infant or a pair of twins. At any rate, argon is, as Professor Norman Lockyer puts it, of the earth earthy, but helion (we commend this spelling to Prof. Young and everyone else) is distinctly celestial, and the fact of helion being a stranger on the earth is accounted for by Johnstone Stoney's deductions from the accepted theory of gases that no free gas can remain permanently upon a heavenly body of small mass and habitable temperature, but that the molecules will fly off into space. This accounts also for the practical absence of free hydrogen or other light gas in our atmosphere. The marvellous results obtained by Moissan form the fascinating subject of another paper. These remarkable researches are bringing to light a new chemistry at high temperatures from which industry will most likely draw numerous applications and undergo important modifications through the use of electrical force. We ask of the forces of nature, says M. Moissan, all they can yield, and they are capable of easy use when transformed into electricity. The journal affords a very readable record of recent advance and thought.

The Analyst, January, 1896.—We congratulate the Society of Public Analysts on the appearance of the first number of Volume XXI. of their journal. In the first place a distinct improvement has been made in the title-page, which now contains a synopsis of the contents so classified as to make the information that may be sought easily found. As to the contents we find now twenty-eight instead of fourteen pages devoted partly to the reports of the proceedings of the society and partly to a useful series of abstracts of foreign and other papers dealing with information of interest to the modern and necessarily scientific analyst. Each day sees advances made in analytical methods, and the *Analyst* supplies a long-felt want in recording these advances, and of putting the knowledge of them in the possession of analytical practitioners. When the society of public analysts was founded some twenty years ago it was a small and comparatively unimportant body, but—mainly due to the excellent work it has since done in connexion with the appointment of standards and the publication of reliable analytical methods bearing on food-supply—it has come into prominence, and doubtless will come into further prominence in the future, since the experience of an aggregate body such as this is likely to prove of service and to have an important influence in directing attention to the defects of legislative measures. It follows from all this that the journal should consistently contain the latest word on analytical chemistry and related matters.

THE CASE OF MR. LIONEL SMITH.

WE publish a third list of contributions to this most deserving fund, and beg again to urge the hardship of Mr. Lionel Smith's case upon the attention of our readers. He has engaged to leave England in a week's time to take a small post under Government in Zululand. He is an absolutely ruined man through no fault of his own, and he has charges upon him that make it very difficult for him to leave England and begin an official career again until they are settled. The following contributions, additional to those acknowledged in THE LANCET of Jan. 4th and 18th, have been received by us:—

Amount previously acknowledged as received by us	£58	6	0
Mr. W. Beecham	0	10	6
Mr. J. F. Churchill	1	1	0
Dr. J. J. Goodhart	10	10	0
Mr. F. J. Pearse	1	1	0
Dr. S. West	1	1	0
Dr. J. R. White	1	1	0
Acknowledged by request of Mr. Lionel Smith:—			
Sir William Broadbent	5	5	0

Additional contributions may be sent to THE LANCET Office, cheques and P.O.O.'s being made payable to the "Lionel Smith Fund."

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THE LANCET.

LONDON: SATURDAY, JANUARY 25, 1896.

IN the midst of the eager, and at times feverish, pursuit of knowledge it is a wholesome thing to step aside and cast a look backward over the path that has been traversed and to take note of the conflicts that have been waged, of the mazes penetrated, and the obstacles surmounted by the seekers after truth in days gone by. There are few, however, who have the power to take such a view with the impartiality that is requisite to the faithful historian. It is notorious how divergent are the descriptions of purely historical facts that proceed from the pens of partisan writers; and many a public character has been sketched in quite opposite terms by the preconceived bias of the writer. It is, therefore, an advantage to have such a survey made by one who has himself done much to "make history" by his own personal achievements, whose pre-eminent position in the sphere of his activity entitles him to be heard with attention, and whose critical powers are of a high judicial order. There has just been published by Professor VIRCHOW an interesting contribution to the *Fortschrift* issued on the occasion of the centenary of the Frederick-William Institute, which, as a review of the progress of pathological science, is replete with interest and at the same time highly suggestive.[1] In it he traces the rise and growth of this study that lies at the basis of medicine, and demonstrates how remarkable has been its advance during the present century.

The change which has come over scientific medicine during this period can, Professor VIRCHOW thinks, be fitly compared with the revolution in ideas that occurred in the sixteenth century through the teaching of VESALIUS and PARACELSUS. Those men were the pioneers in the liberation of medical thought from the dogmas that had prevailed for 2000 years, and their service in the reformation of science is, according to Professor VIRCHOW, paralleled by that of LUTHER and CALVIN in religion. Their work, however, needed to be supplemented by the new conceptions formed a century later by the discoveries of HARVEY, which caused a reversion to humoralism of a different kind to that of GALEN. For whereas in the latter's view the blood was only one of the four "κράσεις," it now came to be regarded apart from the other fluids, which are derived from it by secretion. The discovery of capillaries by MALPIGHI and of blood corpuscles by LEUWENHOEK strengthened the position of the new humoralism, and as formulated by BOERHAAVE—who is described by his pupil HALLER as the "communis Europæ præceptor"—these doctrines gained general acceptance. Professor VIRCHOW points out that the "institutiones" of BOERHAAVE were the text-book which was generally used for a century, and that his teaching may be said to have inspired the scientific pursuit of medicine. One of his pupils, GAUB, wrote the first treatise on general pathology, which had as its motto BOERHAAVE'S aphorism, "Morbus est vita præter naturam"—an expression of the biological aspect of disease that had not hitherto been grasped. Mingled with these ideas were the speculations as to the nature of vital force, originating in the fanciful "archæus" of PARACELSUS, expressed in the "irritability" of GLISSON, and later developed by HALLER, which opened the way to various lines of thought, including the doctrine of animism of STAHL, of animal electricity of GALVANI, and animal magnetism of MESMER. Such was the position of physiological and pathological ideas towards the close of the eighteenth century, when, too, for a brief space the teaching of JOHN BROWN in his "Elementa Medicinæ" was enthusiastically accepted and as suddenly discarded. But in the meantime more solid acquisitions were being made to knowledge in the study of morbid anatomy by MORGAGNI and VALSALVA, and that of experimental pathology by HUNTER.

Thus a hundred years ago pathological science was in its infancy and general pathology was largely dominated by *a priori* beliefs. There was no university in Berlin, yet LIEBERKÜHN was making discoveries in anatomy, the elder MECKEL was working at diseases of the heart, and CASPAR F. WOLFF was laying the foundations of embryology. The vitalistic school was represented by REIL and HUFELAND, who both indulged in speculations that tended to reintroduce the mystic element in the conception of disease. It was early in the century, too, that homœopathy made its appearance, which, whilst starting from a conceivably rational basis in respect to the use of drugs, was carried on in so fanciful a manner and was itself so bound up with the mystical as to afford no help to scientific pharmacology and practically disregarded pathology. Although, says Professor VIRCHOW, homœopathy has continued to survive, it has not advanced the progress of science, nor has it, happily, delayed it. Similarly, the later developments of spiritualism and of hypnotism have done nothing to aid in this advance. RUDOLPHI and his famous pupil, JOHANNES MÜLLER, were, however, extending the field of scientific observation in anatomy, physiology, and pathology, and the younger MECKEL, laying the basis of teratology by working on embryological lines instituted by HARVEY, HALLER, and HUNTER.

The brilliant genius of BICHAT opened up to view the facts that the body consisted of tissues and organs, each and all having their appropriate office and their individual vitality; and there is no doubt that his teaching did much to mould the thoughts of his illustrious pupils LAENNEC and DUPUYTREN in their application of pathological facts to clinical observation. MAGENDIE, by his researches in experimental physiology, was gradually replacing hypotheses by facts; and CHARLES BELL and MARSHALL HALL in England were contributing to the same end. In France CRUVEILHIER had made pathological anatomy interesting and attractive; whilst ANDRAL and BROUSSAIS were importing physiological facts to the interpretation of disease. During this time the progress of pathology in Germany was still under the dominion of vitalistic notions, but the doctrine of parasitism was taking form under the teaching of SCHÖNLEIN, who himself discovered some parasitic fungi. In Austria, where the Vienna General Hospital was

[1] Hundert Jahre Allgemeinen Pathologie. Von Rudolf Virchow. Berlin: A. Hirschwald.

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founded in 1784, there had been such men as VAN SWIETEN and DE HAEN and STOLL, succeeded by SKODA and ROKITANSKY, who did so much for scientific medicine and pathology. Professor VIRCHOW especially pays a tribute to ROKITANSKY'S great work on pathological anatomy for its wide and accurate knowledge and careful personal observation. However, ROKITANSKY in general pathology made a retrograde step, for he based it on ideas as to blood dyscrasia and albuminous changes which were as purely speculative as any of the older humoralistic notions. Much of the more stable additions to knowledge came now from Germany. Professor VIRCHOW himself has been the most prominent of the large number of earnest pathological workers during the half century. He was assistant to FRORIEP in 1844, and on the latter's recommendation became prosector to the Charité Hospital in 1846. The Pathological Institute was founded subsequently, and throughout this long period Professor VIRCHOW has been the inspirer of all the important work that has come from this laboratory. The names of men memorable for advances in pathological research crowd into this most fruitful epoch. Microscopical research became a prominent feature in the study, whilst not a little impetus to its cultivation was the foundation of the *Archiv für Pathologische Anatomie* by RHEINHARDT and VIRCHOW, which has now completed its 142nd volume. We must perforce confine our notice of this period to the observation that it was Professor VIRCHOW'S own work in promulgating the doctrine of cell pathology that did more than anything else to place the science on an intelligible and rational foundation. It is a history as fascinating as any romance, but the truth of the conception of cell life is one now so universally admitted that we may be pardoned for not at present pursuing it in all its interesting development. Nor has the doctrine been shaken by any of the later additions that have been made to knowledge. Bacteriology, which had its origin in the botanical researches of COHN, and its application to mycotic diseases has not influenced the position of those who in old days were called cell "theorists." As Professor VIRCHOW points out, the microbe is not the disease but only its cause, for the former is the sum of the changes induced in the cells of the body by the products of the activity of the microbe. The toxines of BRIEGER and the ptomaines of SELMI are the products of bacterial organisms which exist as parasites in the body. The last decade has been full of work in this direction, but it has still to be proved that there may not be some infectious diseases in which bacteria play no part, and it is remarkable that some of the diseases in which the subject of artificial immunity has been studied by PASTEUR are diseases in which no bacterial parasite has yet been forthcoming. The further development of the study which has led, through BEHRING and others, to the system of serum therapy, has been thought to point to a return to humoral pathology; but the analogy with putrid infection shows that it is not the blood alone, but the tissues that are influenced by antitoxines. And the study of the action of tissue juices —e.g., of thyroid and pancreas—points in the same direction. It is still true that disease must be regarded as the disordered vitality of cells and cell territories, and in the last resort even the problems of immunity must be referable to cell changes.

Nor do we think that it is possible to gainsay the truth of such assertions, for on this question Professor VIRCHOW does not speak as a partisan, although he is linked with the great and fruitful doctrine of cell pathology. It seems to us that that doctrine in its essence is one of those facts which are permanent and immutable, and that whatever new advances are made, they must be explained through it. In closing his review of the pathology of the century, in the pursuit of which he has taken so large a share, Professor VIRCHOW says that the summit has not yet been attained; we are in the midst of researches which, under new methods and aids, promise great results, and he is confident that the progress of science, even if interrupted at times by speculative hypotheses, will go steadily onward, so that when another century is completed the record of the intervening years will show as great and as permanent achievements as those which we are now contemplating.

MR. JAMES LONG'S article in the *Nineteenth Century* on the subject, "Can the Empire feed its People?" abounds in interesting and valuable matter. The two positions which the writer seeks to establish are: (1) that, although, after the first year, it might be possible to provide the necessary food of the people upon our own soil, that achievement could only be accomplished by the importation of enormous quantities of cattle foods and manures, so that the remedy would be as bad as the disease; and (2) that under the conditions which could be created in a few years by the coöperation of our Government with the Governments of our great colonies, all the surplus food-stuffs we require, as well as the more luxurious products of the soil, could be produced in Canada, Anstralasia, India, and South Africa. It would seem that the sums advanced by the nation to our colonies and dependencies at a low rate of interest are estimated to reach the vast total of £1,000,000,000, so that there are the strongest grounds of mutual interest for drawing more closely the ties which unite Great Britain to her vigorous offshoots. The writer deals first with the facts relating to wheat production. Eighteen years ago the average price per quarter for the year was 56*s*. 9*d*.; during the past winter it fell to 20*s*. Twenty years ago the export of wheat from the United States amounted to 76,000,000 bushels; in 1891 the quantity exported had risen to 227,000,000 bushels. The output of wheat from Canada in the decade 1880–90 increased by 10,000,000 bushels. India, which exported less than 500,000 bushels in 1880, now annually exports not less than 30,000,000 bushels. Australia and Argentina show similar increases, and so vast is now the wheat production of the world, and by consequence so low the price, that wheat-growing is no longer profitable in Great Britain. The consumption of wheat in this country is reckoned at six bushels per head per annum, which, on the basis of an estimated population of 38,900,000, makes a total consumption of 233,400,000 bushels. The total home production of wheat is only 64,000,000 bushels, so that it is evident we depend upon outside sources for nearly three-fourths of our supply. Mr. LONG'S contention is that, although at the present time the colonies and India are

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incapable of yielding us the necessary supplies (their surplus for export being only about 55,000,000 bushels), their latent capacity of production is so enormous that there is no reason why in the near future they might not be able to do so. As regards oats and barley, we import more than one-half from Russia. Of the sixty odd million bushels of maize we import, only one-tenth is grown within the Empire.

The facts regarding the production of meat are very interesting. The annual consumption of meat per head per annum in the United Kingdom is 124·8 lb., divided into beef, 65·7 lb., mutton, 28·3 lb., pig meat, 28·6 lb., other kinds 2·2 lb. This is a high average compared with other countries and is a convincing proof of the general comfort and prosperity of the people of these islands. Of the total amount consumed—viz., 124·8 lb. per head—we import 37·3 lb. Mr. LONG works out some interesting calculations with the view of showing that the United Kingdom and the colonies are capable of supporting a vastly larger aggregate of stock than would be necessary to afford supplies to meet the above rate of consumption. The total number of live stock in the United Kingdom, Canada, and Australasia "represents nearly five times as many cattle, and seven times as many sheep, as are annually required, and, making every allowance for difference of breed, feed, and climate, which, comparatively insignificant as they are, would speedily cease to exert any influence, there is an ample stock for the supply of a much larger population than that of the United Kingdom and the colonies. Pigs are multiplied too rapidly to cause any anxiety as to their absolute sufficiency."

The question of dairy produce next claims attention, and it is interesting to learn that "the produce of the dairy farms is immensely superior in value to the whole cereal and pulse crops of the country combined." Mr. LONG has no fear that in this department we are in danger of being eclipsed by other nations, affirming that "the quality of the butter and cheese made in these islands is not exceeded in any other country in the world—indeed, it is approached only upon a few farms in Normandy, and probably still fewer in Canada and the United States." The annual consumption of milk (with cream) in these islands is thirteen gallons per head. To this must be added the milk used for butter-making and cheese-making and for condensing, making a total consumption of about 1,400,000,000 gallons. The production of milk in the United Kingdom and the colonies falls somewhat under this figure, but their resources in this particular are capable of almost unlimited augmentation.

We are not so much concerned with Mr. LONG'S special contention that the Empire is capable of feeding itself as with his statistics in throwing light on the dietetic habits, and hence on the prosperity and health, of our people. It is evident that the English nation on the whole lives well, that its average consumption of meat is high, and that its standard of comfort is no mean one. Whether our meat-consumption be too high or not may be a question. Allowing for the undoubted fact that among certain classes, especially of the urban population, the amount of meat consumed is out of all just proportion to the other factors of the dietary, and that various evils—gout, rheumatism, Bright's disease—are the result, it is not clear that the meat-eating habits of the nation generally are injurious to it. On the contrary, it seems probable that they are one of the elements in its vigour and fecundity. But it is much to be desired that the choice of a meat diet, which always seems to go hand-in-hand with prosperity and wealth, should be limited by the adequate recognition of the indispensable nature of the other food elements. Our urban populations should be encouraged to make a freer use of vegetables, fruits, and dairy produce. Every effort should be made to secure a cheap, adequate, and uncontaminated supply of milk, with a view especially to the welfare of the infant population. The consumption of fish, for the supply of which the United Kingdom affords the most unrivalled opportunities, should be facilitated.

Mr. LONG'S facts and figures are well worthy of the attention of agriculturists and all those who take an interest in the welfare of the rural population. Farmers are one of the most conservative of classes, and there can be little doubt that agricultural distress, perhaps to a certain extent inevitable, has been much aggravated by the failure of the farmer to adapt his methods to the altered needs of a new era. It is evident that the days of profitable wheat-growing in Great Britain are a thing of the past. This in itself amounts to a revolution, and it is for experts to advise on the agricultural methods which can most hopefully take its place. To this end Mr. LONG'S able paper should be decidedly helpful.

COLONEL MONTEFIORE'S paper on Some Features of Hospital Finance, with special Reference to the Formation of a Central Hospital Board for London, attracted a large and representative audience to the Victoria Hotel on Monday. The medical profession was well represented. Mr. BRYANT presided, and Sir WILLIAM BROADBENT, Dr. HEBON, Mr. HOLMES, and others took part in the discussion. There was nothing very new in Colonel MONTEFIORE'S representation of the subject, and some of the speakers were evidently disappointed that he did not bring forward some more complete and fully-fledged scheme for promoting the objects that all good hospital reformers have in view—a limitation in the number of hospitals, better geographical distribution of them over the metropolitan area, and the exclusion of unfit cases and persons from the benefits they supply. Apart from any great novelty in the paper read, it had the merit of presenting the subject in its essential elements. First, he dealt with the financial facts, then with the influence of the councils of the Hospital Sunday and Hospital Saturday Funds in checking the tendency to lavish and expensive management, and finally with the proposal to create a central hospital board for the metropolis representative of lay and medical interests, that shall issue public reports giving details of the various medical charities, and make recommendations, with power also to receive donations and bequests for distribution among the hospitals and dispensaries of the metropolitan area. In the discussion Dr. HEBON dwelt on the faults of the out-patient department as obviously inconsistent with proper attention to the patients, and as obviously demoralising to the people and unjust to the medical profession. He argued that this department was a chief source of waste of the resources of the hospitals.

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His low estimate of this department and of the value of its work was shared by most speakers and apparently by the meeting generally, though Mr. BRYANT spoke as if he believed that the abuse of the department by mean people of the well-to-do classes was an exceptional occurrence not affecting the general merit of the system. Sir WILLIAM BROADBENT gave his adhesion to the principle of a conjoint board, but pointed out that anything like dictation would have to be avoided in dealing with voluntary institutions. Mr. BRYANT, referring to the statement in Colonel MONTEFIORE'S paper, that something like £150 was the cost of each occupied bed in London, maintained that we should have twice the number of beds for the money, and that the excessive expenditure lay at the door of the special hospitals. What Colonel MONTEFIORE showed more clearly is that a large proportion of the liberality of the public, or, rather, of those who leave money behind them, goes to the special hospitals, to the impoverishment, perhaps, of the large general hospitals. It would seem as if there was something in specialism that appeals to individuals beyond the appeal of the general sufferings of mankind which are ministered to so efficiently in the large general hospitals of the country. But the paper might with advantage have shown in more detail the comparative cost of general and special hospitals.

There was a very general consensus of opinion that the chief hope for a remedy of the abuses which all admit is the creation of a central board, to serve as a kind of adviser to the general public in giving to the various hospitals. It must be admitted that the public gives without much discrimination of the various needs and merits of the hospitals. The principles on which the awards of the Hospital Sunday Fund are based seem to be sound, and have a remarkable degree of acceptance with the hospital authorities, if we may judge from the little opposition which is shown to the decisions of the distribution committee. But they are complicated and difficult to be understood by the people. Those of the Hospital Saturday Fund include a system of marks under which one-fifth is actually given for every 2600 attendances of out-patients. It is, moreover, considered an indication of efficiency to have evening arrangements for seeing out-patients. In other words, the principles of distribution in the Hospital Saturday Fund favour the development of the out-patient department in its worst features, and are liable to great objection from the point of view of those who wish to confine hospital and dispensary relief to the cases of those who are really both ill and poor. It might be thought that the application of the tests of the Hospital Saturday and Hospital Sunday Funds was sufficient to show to the public the merit of hospitals without the creation of a central body, as recommended by the Lords' Committee and as generally approved by almost every speaker on Monday. But the public sees little of the awards of the Funds and less of the data on which they are founded. The authorities, too, of the Hospital Saturday and Sunday Funds are regarded as not sufficiently representative in constitution to satisfy all parties, and are a little timid in the use of their critical faculties. They who give have the best right to be critical, and if a central board is not to be created for guiding public opinion in reference to the support of individual hospitals and the development of the system of voluntary hospitals, it will only be by a more courageous assertion of the right of criticism by the councils of the Hospital Sunday and Hospital Saturday Funds. The advocates of a central board move slowly, conscious, no doubt, of the difficulties of such a scheme. But if they wish to be taken seriously they must proceed to something definite, and that without delay.

Annotations.

"Ne quid nimis."

THE UNIVERSITY OF LONDON.

AT the meeting of Convocation on Tuesday, the 21st inst., a very large number of graduates were present, and by a majority of 226 votes (466 for and 240 against) Professor Silvanus Thompson's resolution for reconstituting the University was carried. The Convocation has thus, in the only way open to it by Charter, declared for a Statutory Commission and for the overriding of its own power of veto. As, however, his Grace the Duke of Devonshire asked for the opinion of the country graduates, and as one of them, Mr. Dembski, explained that the day of the meeting was one on which it was impossible for most of them to attend, we question whether the Government will yet be persuaded to bring in the Bill asked for by those who voted in the majority. We shall look forward with some curiosity to the expression of the Duke of Devonshire's views on the subject, and this will probably not be given until the meeting of Parliament.

PRINCE HENRY OF BATTENBERG.

THE news of the death of Prince Henry of Battenberg will have been received with extreme regret. He was a soldier, a sportsman, and an amiable gentleman, and the spirit of adventure which led him to Africa has been sadly rewarded. The Prince left this country apparently full of physical vigour and in excellent health, and his death is attributable to climatic causes. It will be remembered that he greatly felt the exhausting effects of the heat on his way up to Prahsu, and was shortly afterwards attacked with a malarious form of African fever of a severe type, rendering his return to the base necessary. It occasionally happens, especially in the case of young and healthy persons newly arrived on the Gold Coast, that when attacked with fever, the disease, instead of being of an intermittent, is of a continuous and severe, type, and runs a comparatively rapid course attended with much nervous and vascular depression. The severe symptoms are then in direct proportion to the virility of the subject, and the greater his powers of resistance the severer the fever and the more complete the subsequent surrender. This was no doubt the case in the instance of the unfortunate Prince. That he received all the skilful attention which could be afforded goes without saying; we can only deeply regret that it was given in vain. We offer our respectful sympathies to the mother of his children and to the rest of the Royal Family in the grave affliction and loss that they have sustained.

THE NEW PHOTOGRAPHIC DISCOVERY.

As we predicted last week, the developments of the new photographic discovery proceed apace. The remarkable results obtained by Professor Roentgen in Würzburg have been confirmed by Mr. A. A. C. Swinton so completely that we learn from him that lantern slides of photographs of the human hand and of other objects may shortly be

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obtained of Messrs. Newton and Co. of 3, Fleet-street, Temple Bar. Elsewhere our readers will inspect with interest two photographs, one of a human hand and one of a frog, which were produced with Mr. Swinton's powerful apparatus at his laboratory in our presence. He employs the electric current of high pressure and periodicity, discharging through a Crookes vacuum bulb containing a substance such as calcium sulphide, which phosphoresces under the influence of the discharge. The exact nature of the radiations which pass through substances which, ordinarily speaking, are opaque, is not yet understood. Glass appears to rank with these substances, although it does not appear in that case why the radiations pierce the glass of the vacuum tube. A photograph, however, has been obtained of a man's hand in which a piece of glass had become firmly embedded. The print shows with faithfulness the bones and joints of the hand and the piece of glass as a clear and distinct shadow. It will be noticed at once how clear are the gaps between the phalanges of the fingers in our own illustrations, showing the transparency of the cartilage to these radiations. The application of this remarkable phenomenon to the discovery of bullets and abnormalities in the structure of bone has already been made, with very promising results. It is reported already from Vienna, for instance, that photographic pictures taken by this means showed with the greatest clearness and precision the injuries caused by a revolver shot in the hand of a man and the position of the bullet. In another case, that of a girl, the position and nature of a malformation in the left foot were ascertained. As the conditions of these experiments become perfected with regard to the source of the radiations there is no doubt that the result will be even more brilliant. We gladly take this opportunity of thanking Mr. Swinton and his assistant for the demonstration which they afforded us of the main details of the working of the process and for permitting us the use of the apparatus for the purpose of illustrating to our readers the probabilities of the application of this remarkable discovery.

REPLACING THE BRIGHTON SLUMS.

THERE was a long discussion at the meeting of the Brighton town council on Thursday, Jan. 16th, with regard to the Cumberland-place area. A quantity of property in this part of the town was condemned some time ago, the buildings being demolished, and the sanitary committee have had under consideration the rebuilding of the district with more habitable and healthy dwellings. Three courses were open to the council, who had acquired the site at a total cost of about £60,000—viz., to sell the plots subject to conditions providing for the erection of houses in accordance with the plans submitted by the borough surveyor; to let the land on a long lease of, say, ninety-nine years subject to like conditions; or to retain the land in their own possession and, with the consent of the Local Government Board, to themselves erect the necessary houses and afterwards carry on and manage them. It may here be mentioned that the council decided on the latter course, but the first and longest discussion was as to the nature of the buildings proposed to be put up in the area mentioned. By the terms of the order confirming the scheme the corporation was directed to provide house-room for 1113 persons. Of that number 552 have been already accommodated in Ewart-street, leaving 561 to be provided for. The committee proposed to lay out two new streets (to be named after the mayor and another member of the council) of eighty-one "self-contained" cottages of six rooms, and the frontages in streets already existing are to take fourteen shops with dwellings attached and six more cottages—eighty-seven workmen's dwellings in all. The probable cost of each of these houses, including the estimated value of the land, is put at £305. Assuming this sum to be borrowed for thirty years, the charge for repayment of debt and interest will be £15 11*s.* 3*d.* per annum, the total outgoing, including this figure and allowance for rates and taxes, repairs, empties, insurance, and contingencies, comes to £23 7*s.* 3*d.* per annum each. The council will thus be able to let the houses at about 9*s.* per week. The council agreed to offer the corner shop plots and the shop frontages on existing streets for sale by auction for the erection of special houses in accordance with the whole scheme and on the plans of the borough surveyor. The chief objection to this scheme in its entirety was put forward by Mr. Turton, F.R.C.S. Eng., who drew attention to the fact that out of the 900 persons who had been displaced from this area 270 were occupants of common lodging-houses. The Housing of the Working Classes Act, he said, stated that the local authorities should re-house those displaced in suitable tenements, and there was a tendency to make these schemes rather street-improvement schemes than improved housing of the working-classes projects. That there is much to be said in this direction is shown by the fact that the whole of the registered common lodging-houses in the borough except two stood on this area, nor must a petition from the inhabitants in the neighbourhood against the re-erection of such accommodation be admitted as a fair excuse for exporting such houses to another part of the town. The committee had taken the matter into consideration, however, and recommended negotiations for the purchase of land near the Cumberland-place area for the erection of a model common lodging-house as against the placing of such a building on the ground now cleared for operations. The committee were unanimous on this point, in favour of which, however, no weighty argument was put forward. Sir Joseph Ewart, M.D., piloted the recommendations through the council, and the committee's work was endorsed throughout. The new streets are to be laid out by the corporation and, together with the other house plots, retained by them; the vacant shop plots are to be sold, and land elsewhere is to be obtained for common lodging accommodation.

A REMARKABLE ACCIDENT.

A CASE of gunshot injury to the femoral vein, remarkable not only for its surgical interest but also for the peculiar way in which it was caused, is related in the *Lyon Médical* for 1895.[1] An artist aged thirty-six used to keep a shell in his studio as a relic of the war of 1870, believing it to be uncharged. On Aug. 3rd, 1894, having lighted a cigarette, he threw down the unextinguished match, when by chance it entered the narrow mouth of the projectile, which very soon afterwards exploded, one of the fragments impinging on the heedless smoker's right inguino-crural region and producing violent hæmorrhage. Fortunately a medical man was promptly on the scene and was able to restrain the bleeding by means of a plug of iodoformed gauze. The patient was then transported to the Hôtel Dieu, where he was at once attended to by the resident surgeon, M. Commandeur, an hour and a half having elapsed since the explosion. On admission the artist's general condition was good; his face was pale and spotted with powder marks, but there was no shock. The wound occupied Scarpa's triangle, measuring about fifteen centimetres by eight, and extending slightly above Poupart's ligament, where, however, only the integument was implicated. The bottom of the wound was almost entirely hidden by a wrinkled mass, in which three layers, formed by trousers, shirt, and drawers, were plainly distinguishable, but no metallic substance could be discerned.

[1] Tome i., p. 459.

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A considerable effort was needed for the extraction of this mass, and on examination it was found to enclose a fragment of the shell eight centimetres long by five broad, about twelve millimetres in thickness, triangular in shape, and weighing 181 grammes. Enveloped in a sheath of clothing, this formidable missile had penetrated the adductor muscles of the thigh, hollowing out a conical tunnel nine or ten centimetres deep, and extending as far as the descending ramus of the ischium. The moment the foreign body was removed blood of a dark colour gushed forth in profusion from two sources, but the prompt application of a pair of forceps immediately controlled the flow. It then became possible to examine the wound more leisurely. The femoral artery occupied the central axis of the cavity, and, though denuded anteriorly for a considerable distance, was otherwise uninjured. The femoral vein, lying behind the artery and in close contact with it, could only be partially examined, but no attempt at isolation was made. Its walls had been partially divided by the fragment of shell, but the aperture was completely closed by the forceps. Protruding from the cellular tissue at the lower angle of the wound was a long, slender, ribbon-like structure—the lower end of the internal saphena vein, which had been entirely severed. The upper end was effectually closed by a second pair of forceps. Under the circumstances M. Commandeur decided to apply no ligatures, except in the case of the lower end of the saphena, and that more as a matter of form than from conviction of its necessity. The after-history of the case is one of unbroken success. The temperature never exceeded 101·2° F., and after the seventh day it became normal. The forceps were allowed to remain *in situ* till the fourth day, when they were removed without trouble. Cicatrisation was slow owing to the great loss of substance, but eventually the patient regained the complete use of his limb. The only circulatory complication was when he first began to walk. For four or five days slight œdema was then present, but it caused no inconvenience and did not recur.

SICKNESS AND MORTALITY DURING THE CRIMEAN WAR.

WE alluded last week to the Medical History of the Crimean War, by Dr. Paul Myrdacz. The subjoined table, taken from *Archives de Médecine et de Pharmacie Militaires* for January, 1896, gives the results of that writer's investigations into the losses which occurred in the course of the campaign.

Table showing the Sickness and Mortality during the Crimean War. (The figures refer exclusively to casualties at the seat of war itself.)

Army.	Strength (successive).	Killed in action.	Wounded.	Died from wounds.	Sick.	Died from sickness.	Died from accident, missing, &c.	Total losses.
French[1]	309,268	8,250	39,868	4,354	196,430	49,815	7,752	70,171
English[1] ...	97,864	2,755	18,283	1,847	144,390	17,225	345	22,172
Italian[2]	21,000	12	167	16	21,896	2,166	—	2,194
Total... ...	428,132	11,017	58,318	6,217	362,716	69,206	8,097	94,537
Russian[3]... ...	324,478	21,000	92,381	14,671	322,097	37,454	2,288	73,125

These statistics are interesting, though manifestly incomplete in some respects. The information afforded is doubtless correct as far as it goes, but the table would be more satisfactory if it bore reference to a single period only. The difficulties in the way of a compilation of this kind after the lapse of so many years must be very great, but we should think that even now it would be possible to produce a more exhaustive record of the casualties that owed their origin, directly or indirectly, to the siege and fall of Sebastopol. According to Chenu and other authorities, the French losses exceeded 95,000, but in this estimate are included the deaths of invalids in France and elsewhere. The British losses were also much greater than would appear from Dr. Myrdacz's table, but presumably the fatal cases at Scutari are not allowed for in that record. As regards the Russians, Chenu says that from first to last, and inclusive of their operations against the Turks, no fewer than 630,000 men perished. Altogether, the bills of mortality may probably be set down as follows: British, 30,500; French, 95,500; Sardinian, 4000; Turkish, 40,000; Russian, 630,000; total, 800,000—a terrible, and, as the event proved, quite unnecessary holocaust.

[1] From April, 1854, to June, 1856. [2] From May, 1855, to June, 1856. [3] From September, 1854, to October, 1855.

A BRUTAL PROCLAMATION.

THE determination of Spain to retain possession of Cuba is one with which a colonising people like ourselves may easily sympathise, and, as the Spaniards have a proverb, "War with all the world, but peace with England," we are not the nation which would be likely to be biased in our consideration of the methods adopted by the Spanish Government for the settlement of Cuban affairs. Cuba was in revolt from 1868 to 1878—indeed, it was not reported tranquil till 1880—and during the succeeding ten or twelve years continual efforts were made to persuade the Cubans of the sympathy of many Americans, if not of the American Government, with them, should they choose to attempt further revolutionary measures. It has been reported that the insurrection of 1868-78 was only suppressed by the exercise of a severity that amounted to reprehensible cruelty, for an account of which we refer our readers to a work entitled "The Book of Blood," which purports to be an authentic record of the policy that was adopted by modern Spain to destroy the independence of Cuba. This book gives a list of the political executions and transportations to penal settlements, and also of the prisoners whose fate has never been known, and constitutes a shocking record of inhumanity. We have nothing to do with the political side of the question, but with such a record—uncontradicted, we believe—against the Government we are justified in commenting upon any methods pursued towards the insurgents which seem to us contrary to the ethics of civilised war. We have received from a correspondent in Havana the text of one of the orders of the General-in-Chief of the Army of Operations, which runs as follows:—

"Finding that in this insurrection a great part of the inhabitants of the country sympathise with the rebels, helping them with information and doing other services for them, and it being of the greatest importance that existence should be rendered difficult to these people by making them lack the means of subsistence which they draw from the towns, it is hereby forbidden to sell provisions or any clothing to women and children, and the same shall only be sold in small quantity to men, paying great attention that the salt sold them should be in quantity proportional to the provisions they obtain. I charge that much attention be paid to the fulfilment of this order, and that it be carried out with all severity, especially in the last-mentioned detail."

This order appears to us unworthy of a historic European nation unable to control rebels by the sword. It would seem that Spain seeks to discharge her vengeance upon their wives and children, trying to win back her lost districts by subjecting these helpless ones to privation. There is a particular sting contained in the last sentence of this order. Food in Cuba keeps badly and becomes rapidly unpalatable

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unless largely intermixed with salt, while it is the firm belief of the residents that to be limited in their supply of this mineral adjunct to their diet produces a sort of dyscrasia. So that the order will touch the insurgents in a particularly delicate spot; for, while it will put their women and children to serious privation if it is rigidly obeyed (which, in view of the success of the rebel arms, we may be certain it will not be), the troubles of the mothers will be aggravated by the haunting apprehension that not starvation alone but disease is hanging over their offspring. For any food they may obtain elsewhere will have to be eaten without salt. It is impossible not to hold that such an order is brutal, though all who are conversant with the history of the colony and the late rebellion admit that Spain has had a terribly hard and exasperating task, and still has that task, before her.

THE LAW AS TO DYING DECLARATIONS.

AT the Wiltshire Assize, held last week, Emily Lazenby, Mary Stretch, and Edwin Scriven were charged with the wilful murder of Martha Scriven at Swindon. There was a second charge against Lazenby of feloniously using a certain instrument, and Stretch and Scriven were charged with aiding and procuring Lazenby to commit the felony. The magistrate's clerk gave evidence as to the taking of the dying depositions of the woman. She stated that she made the declaration in the fear of death and of immediate death. Some considerable controversy took place between counsel as to the admissibility of this declaration, on the ground put forward by the defence that the woman did not believe that she was immediately dying. The medical attendant deposed to telling the woman repeatedly that she was dying. There was one clause in the declaration, "I might get better; I mean to have a good try." It was contended that this proved that the woman was not in hopeless expectation of immediate death, and Mr. Commissioner Bosanquet, Q.C., decided to disallow the document as a dying declaration as against all three prisoners, but admitted it as evidence against the two women, because they were present at the time it was read over to her, and he declined to grant a case for the higher courts on this point. A verdict of "Manslaughter" was returned, and the woman Lazenby was sentenced to seven years' penal servitude and the other two prisoners to five years' penal servitude each.

THE WANDERING CELLS OF THE ALIMENTARY CANAL[a]

To a recent number of the *Journal of Physiology* W. B. Hardy, M.A., and F. F. Wesbrook, M.D., contribute an interesting paper on the Wandering Cells of the Alimentary Canal. One of the results of modern microscopical investigation is to show that to obtain successful sections it is essential that the tissue should be taken from the body and plunged into the fixing solution as quickly as possible after death, a few minutes more or less materially modifying the appearances presented. Accordingly, Mr. Hardy and Dr. Wesbrook removed the portion of gut intended for examination within, at most, a minute after the cessation of the blood flow. The section was then fixed with absolute alcohol and a saturated solution of corrosive sublimate in a 0·6 per cent. salt solution at a temperature of 212° F., though in some nstances gold chloride and osmic acid vapour were employed. The staining agents used were chiefly Ehrlich's neutral mixture and the Ehrlich-Biondi mixture, but many acid and basic stains were also employed. Now, in the bodies of all the higher Metazoa there is a tissue composed of isolated units of which each cell is endowed with amœboid movement and has its home in the fluids of the body, and three kinds of these cells have been differentiated — the oxyphile cell, bearing discrete granules, which stain with acid dyes; the basophile cell, with discrete granules, staining with basic dyes: and hyaline cells, which do not form discrete granules. As these cells are all derived from the mesoblast the term "sporadic mesoblast" has been applied to them. One of the writers of the communication referred to, Mr. Hardy, and Dr. Kanthack have recognised two of these groups—namely, a hæmal group belonging to the blood system, and a cœlomic group related to the great cœlomic spaces and a closely related structure, the peripheral lymph system. The paper under notice is devoted to the consideration of the minute structure and function of those wandering cells which lie in the interspaces of the mucous coat of the gut and of the relation of these cells to the cœlomic and hæmal groups. The writers suggest the name of splanchnic cells for them. The oxyphile splanchnic cells are spheroidal with a spherical or horseshoe-shaped nucleus, resembling in this particular the coarsely granular oxyphile cell. The cell substance is crowded with discrete granules which stain with acid dyes. These cells chiefly wander into the crypt epithelium. The splanchnic basophile cells are especially numerous in the carnivora, a single villus in a dog containing as many as 500. The granule substance is remarkable for its extreme instability in presence of even small quantities of water. Hence the gut has to be dehydrated rapidly with absolute alcohol if they are to be preserved. The cells vary much in shape, but are usually flattened conformably to the surface of the gut, and the cell substance is crowded with granules. They are smaller than the cœlomic basophile cells. They form in carnivora an almost continuous layer beneath the epithelium of the villi, but are more scattered through the substance of the villi in herbivora. The splanchnic hyaline cells are very numerous and are spheroidal or polygonal in form, with a rounded nucleus, and readily take up iron compounds. They chiefly wander into the epithelium of the villi. The cells, although the writers put forward their opinions with all reserve, collectively appear to undergo changes in total and relative number, in the size and composition of their granules, and in their distribution as influenced by their own proper movement in the mucous coat. They seem to be affected by the presence of food in the gut, by its absence, and by the extent to which the gut is invaded by microcosms.

INDIA AND ITS SANITARY SERVICE.

THE late announcement of the Government of India, dealing with the reorganisation of the sanitary department and the establishment of a bacteriological institute at Agra, has not escaped a good deal of adverse criticism in India, especially on the part of the medical services in that country. Without at all depreciating the scientific reputation and ability of Mr. Hankin or the services he has rendered in connexion with practical bacteriology, it is contended that Brigade-Surgeon-Lieutenant-Colonel D. D. Cunningham's claims have not received the recognition they merit from the Government of India. He is a Fellow of the Royal Society, was the recipient in 1895 of the Stewart Prize, the award of the British Medical Association, and in addition to being the head of his batch at Netley, and having been afterwards highly trained abroad, he has great Indian experience and a long record of original scientific work. People are asking, What is the use of all this and of Netley and its system of training if the Indian Government has to go outside its own service to get its work done? We understand, however, that while Mr. Hankin is to direct the institute of bacteriology at Agra, Brigade-Surgeon Lieutenant-Colonel D. D. Cunningham is to undertake a similar duty at Calcutta to that which he has long carried on there. There is quite enough work to occupy the labours of both gentlemen, and the medical profession in India will no

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doubt be only too glad to have their services, for they fully acknowledge the capital work which Mr. Hankin has done in India. It is quite right, of course, that all the modern methods of scientific research practised in Europe should be adopted and systematically applied in India, and we have frequently urged that this should be done. But this is not everything—it is only a means to an end; and we shall regard it as a distinctly retrograde step and a great injury to the progress of practical hygiene if India be deprived of its staff of sanitary commissioners. There is, as everybody knows, a great deal of practical sanitary work to be done in that country; questions bearing upon public health are constantly arising, and have to be dealt with in a prompt and practical manner; inspections have to be made, and cannot be dispensed with if even the elementary details of sanitation are to be attended to and pressed upon the notice of the local government authorities; and how are these matters to be carried out except by a body of men selected for the purpose?

THE CHITRAL CAMPAIGN.

THE wars and rumours of wars and the rapid succession of incidents that have occurred of late of a more or less exciting and unexpected character have tended to diminish, but not to obliterate, the impression which the dramatic series of exploits connected with the Chitral campaign made upon the public mind. It was, altogether, an expedition in which the European and native armies of India did excellent and brilliant service and displayed a spirit of pluck and fortitude of which any nation might feel proud. The nature and variety of the incidents and the difficulties that were so manfully encountered and overcome in the siege and relief of Chitral were well calculated to excite the imagination, and their history makes up a fine page in the military records of India. We are glad to say that the medical service took a worthy and important part in that campaign, and we sincerely congratulate those of its members whose services have been recognised by Her Majesty and whose names appear in the list of honours and rewards published in the *London Gazette*. Surgeon-Major-General Thomas Maunsell of the Army Medical Staff and Surgeon-Colonel George Thomson of the Indian Medical Service are made Companions of the Bath in the Military Division.

CHOLERA-INFECTED VESSEL AT HOLYHEAD.

THE steamship *Garlands* came into Holyhead on the 15th instant under stress of weather with the yellow flag flying. It then transpired that she came from the Black Sea with a crew of twenty-three men, and took in water at Constantinople. Four days after leaving Constantinople sickness set in, and by Jan. 11th there had been about ten cases of so-called severe diarrhœa, besides three of undoubted cholera, two of which had terminated fatally. The last death took place on Jan. 11th. Directly information as to the arrival of the vessel reached the Local Government Board, Dr. Theodore Thomson of the medical department was instructed to travel down by night mail; and on his arrival he, in coöperation with the medical officer of health and the deputy health officer and sanitary officials, advised as to additional measures of precaution and of disinfection. Several days having elapsed without any recurrence of illness amongst the crew, and no one being desirous of landing, the vessel was then, under the orders of the Local Government Board, free to continue her voyage to her destination—namely, Barrow-in-Furness. This incident shows that we are by no means free from the risk of a re-importation of cholera into this country. Russia is still somewhat widely affected by the disease, Asia Minor and the Levant are infected, Egypt is not yet clear of infection, and Constantinople was a seat of the disease during the last three months of the past year. It is not easy, on the information thus far available, to decide precisely what was the source of the infection in this case, but the persistent continuance of the disease and the large proportion of persons attacked tends rather in the direction of the theory of water pollution; so, also, does the commencement of the outbreak within a few days after filling up the water tanks at so suspicious a place as Constantinople. Happily, our cholera organisation was instantly on the alert, and all that was necessary was carried out without resort to vexatious restrictions.

A STUDY OF CHILDHOOD.

EVERY ONE who has read Professor Sully's "Studies of Childhood" must acknowledge the American child to be a subject worthy of study. But the following delicious production which we received from the medical man to whom it was sent shows, we think, that the child mind in this country is equally interesting. The letter is written upon small pink paper, ornamented with a picture of a pony, and we transcribe it *verbatim*, omitting only names and addresses:—

"Dear Dr. ———,—I would be very pleased if you would let me have a Baby for one guinea. We want it on The 4th of Febry for Mother's birthday. We would like it fat and Bonny, with blue eyes and fair hair. We Children are going to give it to her ourselves please answer at once.—Yours sincerely, ARCHIE ——."

"P.S.—Which would be the cheaper a Boy or a Girl?"

We commend this to the notice of Professor Sully. The P.S. is delightful, and who is there shall answer the momentous question? The age of the writer—the eldest child—we may add, is seven; and the letter, except for certain paternal instructions as to spelling, given without seeing the letter, is the unaided composition of "we children." We are honoured with the acquaintance of a young lady aged five who one day remarked, "Father, dear, why is our baby such an unpleasant, common little thing?" but this only shows from what different points of view children may look at the same thing. We fear that these children have not been instructed by "Baby Buds," or they would know that babies are not procurable by the mercenary method suggested by their letter, but it shows that the real child is still with us.

THE DUNSTABLE TOWN COUNCIL AND THEIR MEDICAL OFFICER OF HEALTH.

SOME members of the town council of Dunstable have odd notions as to the post of medical officer of health. When the late health officer's term of one year for which he had been elected came to an end, the town council met to fill up the vacancy, and then some curious views were enunciated. One councillor said that as there were several medical practitioners in the town "the office ought to be shared all round"—in other words, it ought first to be bestowed on one and then on another. This view received support even from one who had reached the responsible position of an alderman. This gentleman did not care whether the appointment was made for one year or for five, but he did hold that the office should be "fairly shared in rotation." It is hardly conceivable that those who are presumably men of business and experience, and who are acquainted with the public matters with which they have to deal, can enunciate such a doctrine as this. Do these gentlemen change their managers or those who, in other capacities, have charge of their interests once every year or every five years, so as to give every other suitable person in the town a turn? Do they by any chance turn out their legal adviser every year? It is, indeed, the first time

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we ever heard such views expressed, and we are certain that if effect were given to them the damage done to those great interests which are involved in public health questions would be irretrievable. But the alderman announced that the post of medical officer of health was a sinecure, and this is, we expect, the secret of the curious views which are held by some of the notabilities of Dunstable. If this post is ever a sinecure we must blame the miserable salary which is intended to serve as a hint that no work is expected or wanted, or the fact that the medical officer of health never receives the support of his council when he advises as to action that should be taken. What the precise cause of the alleged nuisance is in Dunstable we do not know, and, since the Mayor and Mr. Councillor Perkins did their best to save the reputation of the council, we need not inquire whether the statement is correct or the reverse. The former urged the reappointment of the present officer, and the latter pertinently asked whether people usually discharged their servants just as they became accustomed to their work, and in the end the council were unanimous in re-electing Mr. Morcom for one year only.

THE LONDON POST-GRADUATE COURSE.

DURING the spring term, which will commence on Monday, Feb. 3rd, there will be classes at Moorfields (Eye), Blackfriars (Skin), Bethlem (Mind), Great Portland-street (Throat, Nose, and Ear), King's College (Bacteriology), Cleveland-street (General Medicine and Surgery), Parkes Museum (Public Health and Hygiene), and at the Institute of Preventive Medicine (Urine Testing). The hours at which the lectures are to be given will all be in the afternoon and evening, so that the practitioner can attend. The fees are payable for single courses, and are from 1 to 3 guineas each. Early entries are desirable so that the classes may be formed. During 1895 nearly 200 practitioners attended. They came from all parts of the Empire and from the most distant countries of the world. A central building, which would naturally aid in the organisation and multiplication of the classes and extension of the work, has become a necessity and is in contemplation. Entries will be received by Dr. Fletcher Little, secretary, 32, Harley-street, W.

OUR EPILEPTIC COLONY.

COMMONLY the accepted gauge of success in colonising is the measure of commercial profit. There is, however, one exception to this rule. It is the case in which the colonists are epileptic. Establishments like those of Bielefeld, Chalfont, and the American colony in Tennessee must be judged by another standard. In them the return from land, or even from work, is not calculated in money alone. This form of advantage, indeed, is not forgotten, but it is not the one or even the first consideration. The farm is before all things a training school designed and administered on sanitary principles. It is a hospital planted out in cottage fashion, partly self-supporting, but mainly dependent, as it needs must be, upon public or private charity. It is chiefly as a therapeutic enterprise that it now claims our attention. Viewed in this light it possesses a great and peculiar interest. Furthermore it is only necessary to examine the reports published from time to time respecting the German institution which forms the prototype of its class in order to prove success by the results of wise and careful treatment. The respectful flattery of imitation has not been wanting to it, and the work done for thirty years in a Westphalian village has been reproduced on a varying scale not only in Germany itself, but in Great Britain, America, Holland, and Switzerland. In THE LANCET of Nov. 17th, 1894, we published a detailed account of the epileptic colony recently founded at Chalfont, in Buckinghamshire. The marked improvement in the health of these invalid settlers was only what might have been expected under their greatly improved vital conditions. Their efficiency as cultivators afforded the most gratifying proof of this improvement, and the fact that the attainment of these desirable ends was found to be compatible with a noteworthy economy in expenditure ought to reassure any who may still be disposed to doubt the wisdom of aiding with their means this new departure in the treatment of disease. We feel confident, therefore, in supporting the appeal issued a few days ago on behalf of our national colony by the chairman of the executive committee. A sum of £1200 received up to the date of that request has been found altogether inadequate to the purposes which the committee have in view. It certainly seems exceedingly meagre compared with the annual subsidy of £30,000 allotted to Bielefeld in a much less wealthy country than our own. We feel assured that the present difficulty need only be mentioned in connexion with a work so deserving and so fruitful of good as we have shown this to be in order to open more widely the justly-generous purse of the British public.

BOILER EXPLOSIONS.

OUR remarks upon the Board of Trade report on boiler explosions, issued about this time last year, apply with fresh, and even greater, force to the report just recently issued. In the report issued in 1895 the total number of boiler explosions investigated was 104, of which 21 occurred in the case of domestic heating apparatus. In the report now before us the total number of explosions investigated was 114, of which 27 were due to domestic heating appliances; so that the number of cases inquired into shows a small increase upon the number recorded in the preceding year, while the number of persons killed and injured is larger than in any year since the Boiler Explosions Act came into force. This increase, however, was due to some exceptionally serious accidents at industrial works, and an unusual number of domestic boiler explosions consequent upon a prolonged period of severe frost. The latter accidents were, in the main, the result of undue pressure in the boiler arising from the freezing of the water in some part of the apparatus. The lesson is taught afresh, therefore, of the need of measures to prevent such occurrences. We believe this would be amply met by the use of a safety-valve placed in a convenient and accessible recess so as to permit of inspection and testing from time to time. So far the present winter has, happily, not been very severe, and should it continue without a "cold snap" such as we experienced in the previous season we may hope to find a complete absence of accidents and disasters in the next Board of Trade report. But then, such a satisfactory result ought to serve as a lesson of equal force as when disaster happens, and it must be borne in mind that the foretelling of weather is not at present an exact science.

THE SMALL-POX EPIDEMIC AT GLOUCESTER.

THE Gloucester Board of Guardians, who do not enforce the Vaccination Acts, discussed at their meeting last week a minute of a special meeting of the sanitary committee of the City Council, which stated that the number of cases of small-pox in the Infectious Diseases Hospital was thirty-six, that others had been notified, and urged that vaccination should be enforced as the only means of staying the epidemic. After a long discussion the board passed a resolution recommending parents to have their unvaccinated children immediately operated upon, and stating where this vaccination and the revaccination of adults would be performed. The action of the sanitary committee was influenced in an effective manner by the resolutions passed at a meeting of the members of the medical profession of Gloucester held on the 16th inst., on the invitation of the committee to advise

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as to the steps to be taken in regard to the outbreak of small-pox. Dr. Batten was in the chair, and twenty-one other medical men were present at the meeting, which unanimously expressed an opinion that the accommodation for infectious diseases should be at once increased, that "successful" vaccination in early life and revaccination at a proper interval afterwards is the only available means of protection against an attack of small-pox, that the guardians should be urged to comply with the provisions of the Vaccination Acts, and that a house-to-house visitation should be made to prepare lists of unvaccinated persons with a view to ensure their prompt vaccination. Owing to the refusal of the guardians of late years to enforce the Vaccination Acts as well as to anti-vaccination propagandism in the city, Gloucester has rivalled Leicester in regard to its neglect of vaccination. The last published returns (1891) give as many as 84·7 per cent. of "children not finally accounted for." It is significant that the board of guardians to whose neglect of duty this state of things is due should, in the face of small-pox actually invading the city, have awakened to a sense of their responsibility, but it will require very energetic action indeed to prevent widespread suffering amongst the children if the disease should gain a foothold. We cordially congratulate Dr. Batten and his fellow practitioners upon the prompt manner in which they responded to the appeal made to them by the sanitary authority.

THE REVOLVER AGAIN ON TYNESIDE.

THOMAS DIXON, a steel-worker aged twenty-two years, is in custody charged with murdering Alexander McLaren and Robert Anderson, and with inflicting serious wounds upon two other young men, at Jarrow-upon-Tyne on Saturday night last. It appears that Dixon purchased a revolver on Saturday afternoon, that during the evening he was drinking, and at 10 P.M. was in a public-house with McLaren. An altercation arose, and Dixon said he had a good mind to shoot McLaren, and upon McLaren replying, "Shoot away," shot him through the left chest and ran away. In the course of a very short time Dixon shot three other men, all of whom were unknown to him—Anderson, a youth aged twenty-one years, the ball entering his body just below the lower jaw on the left side and passing into the cervical spine; Smith in the shoulder; and Brewer in the face. He then attempted to shoot a man named Sloan, but was overpowered by him and disarmed. McLaren was taken to the Palmer Memorial Hospital, where he died on Sunday. Anderson was taken to his home, and also died on Sunday. Brewer is reported to be in a serious condition, and Smith is severely wounded. Before the magistrates on Monday Dixon said, "I can only say that I did not know what I was doing. I know nothing about the case." Superintendent Fleming told the magistrates that McLaren was intoxicated at the time he was shot, and it transpired during the inquiry that Dixon, too, was drunk. Is it not time that some restriction was placed by law upon the sale of revolvers?

POISONING BY SULPHURETTED HYDROGEN.

CASES of poisoning by sulphuretted hydrogen are comparatively rare despite the enormous quantities o this gas which are encountered in the purification of coal gas and in the recovery of sulphur from alkali waste. In the latter operation we have seen nearly a million cubic feet of the pure gas treated for its sulphur in one day. Dr. Haldane has found that the poisonous gas of sewers is chiefly sulphuretted hydrogen, and he contributes this week to our columns a very interesting article upon the subject, which is based upon the accident at the East Ham sewage works, by which five men met with their deaths. The odour of the gas betrays its presence in very minute quantities in the air, a quality which is in itself a powerful incentive to avoid inspiring it. Familiarity, however, appears to breed a sort of contempt for this otherwise repulsive smell, and to some extent certain persons, as, for example, analytical chemists, find it less disgusting, and their sense of smell becomes blunted to its presence, as they are accustomed to employ it day by day for analytical purposes. Oddly enough, when the gas is breathed undiluted, the disgusting smell is hardly evident, as we have experienced ourselves, and its effect upon the organism is most insidious, it induces a not disagreeable anæsthetic condition from which the subject may never be restored, and poisoning by sulphuretted hydrogen supervenes. We fear this must have been the result in a shocking occurrence reported this week. It appears that at the Tynemouth Gasworks, North Shields, three men entered a chamber containing sulphuretted hydrogen gas, with the result that they were rapidly overcome and rendered unconscious. In a brave attempt to rescue these poor fellows two other men were also rendered unconscious, and eventually succumbed in spite of every measure being taken to restore animation. Artificial respiration, however, succeeded with three others who had made attempts to enter the chamber. Recovery from poisoning by sulphuretted hydrogen is extremely uncertain, since the gas enters into combination with the alkali of the blood, acting upon the hæmoglobin much as carbonic oxide does, by preventing the appropriation of oxygen. It appears to be set free again in the lungs, the early symptoms of poisoning recurring. The patient may have every appearance of recovery, therefore, from its first effects, only to sink again, as has been known, an hour after the time that the poison was inspired. Beyond artificial respiration and the administration, if possible, of pure oxygen gas it is difficult to suggest any other means of restoring animation. Possibly the employment of air containing some iodine vapour would be of value, since this would decompose the sulphuretted hydrogen instantly. We trust, however, that every effort is made to minimise the risks of such ghastly occurrences as we have just recorded. The men employed in gas and alkali works know full well the danger of being "gassed," as they call it, and we sincerely hope that in the present case there was no negligence, although, according to the accounts we have read, it is stated that the men were unaware that sulphuretted hydrogen had by some means been allowed to accumulate in the chamber.

A MEDICAL VALHALLA.

THE names of military and naval heroes who lose their lives in battle against their own species are fittingly immortalised in records and on monuments all the world over, but a similar distinction is not always accorded to their equally heroic brethren who succumb while combating disease and death. In order to take away this cause of reproach, so far, at least, as their own institution is concerned, the authorities at Val-de-Grâce some short time since created a Hall of Honour where marble tablets for the commemoration of defunct medical martyrs could be erected and preserved. As may be supposed, the lists already inscribed are both numerous and lengthy, for French medical men have ever been renowned for devotion to duty under circumstances of difficulty and danger, but none of them, we should hope, can compare with the terrible death-roll now being prepared of the military medical officers who were cut off by yellow fever at San Domingo and Guadeloupe during the years X. and XI. (1801-3). After a painstaking research amongst the records of the Comité Technique de Santé the names of no fewer than fifteen physicians, 138 surgeons, and forty-five apothecaries who

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thus perished have been rescued from oblivion, and will in due course be added to the Val-de-Grâce Valhalla. Most of this appalling mortality took place at San Domingo, only sixteen deaths in all having occurred in the other island. Our own military archives can doubtless furnish particulars of many gallant encounters with this most malignant of diseases, but we do not think that the French hecatomb could be equalled or even approached. Happily, in these days of improved sanitation and increased knowledge the dreaded "Yellow Jack," so fatal to our forefathers, has been shorn of most of his power.

SOCIETY OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the executive committee of this society was held on the 16th inst. at which the following resolution was carried unanimously and ordered to be communicated to the medical journals: "The executive committee of the Society of Members of the Royal College of Surgeons of England desires to thank the Fellows most heartily for their recent vote affirming the principle of the direct representation of Members upon the Council; and the committee hopes that this vote will mark the commencement of a new era, in which Fellows and Members will work together for the good of the College."

THE PHYSICAL NEEDS OF NURSES.

MANY persons are apt to forget that in utilising the nursing services of others they owe to these latter some humane consideration over and above any regulated wage. It is a standing rule that attendance upon the sick should be arranged with due regard for such necessary claims on the part of nurses as those of rest and food. If these be overlooked it is hardly to be expected that the most dutiful efforts can be either wholly willing or fully successful. In wholesome recognition of this truth the authorities of Swansea Hospital recently decreed that nurses should receive one substantial meal while on duty overnight. The concession was not an extravagant one, but it appears, nevertheless, to have been reduced by the hospital executive to a tantalising minimum which rendered satisfaction impossible and contentment a crucial virtue. Shortsightedness of this description, unfortunately, is not unknown elsewhere than in Swansea. We have before this had occasion to direct attention to the neglect of the most ordinary regard for nurses' requirements in some of our parish infirmaries. Overwork everywhere implies not only great irregularity in the hours of meals but even the loss of one or more of these daily, and overwork thus illustrated is a familiar experience with parochial nurses. Such want of management as these facts display is discreditable to any system. It is equally to the advantage of patients and nurses that due provision should be made for the latter both as regards their meals and their timely rest; and the exercise of such reasonable care as will secure these ends should be possible under all ordinary conditions.

IMMIGRATION INTO TOWNS.

MR. ARTHUR BALFOUR, upon the occasion of his recent visit to Glasgow to receive the freedom of the city, referred to the problem of depopulation of rural districts. Emigration from the country is, he said, a natural law; "the pursuit of agriculture taken by itself cannot support a constantly augmenting number of individuals in a country already fully settled and where there are no waste lands to reclaim." Therefore they gravitate into the towns, where if rent is high food is cheap. Dr. Gairdner, writing upon this subject to the *Glasgow Herald*, points out how this urban immigration is the despair of social and sanitary reformers. He divides immigrants into three classes: (1) The efficient and self-supporting; (2) the exact opposite; (3) the intermediate class, who can sail with the stream, but not against it, who are affected for the worse by external influences, but who have potentialities for good. He concludes his letter by saying that he is sure that towns can be made healthy and fit for Class 1 without being allowed to degenerate into squatting places for Class 2, and without encouraging too much the growth of Class 3. The problem is exceedingly difficult. Φύσει πολιτικὸς ἄνθρωπος, said Aristotle long ago. Men will crowd into communities and always have done so, witness the rapidity with which the primitive Egyptian hermit became transformed into the monk living in community. It has been well said there is no solitude like that of a great city, and this, perhaps, is one cause of the attraction that cities have for the dregs of a population. In the country the criminal or would-be criminal is too well known, in a town he can pass unobserved; and this it is which keeps up the supply of Class 2. Dr. Gairdner gives us to understand that he has a method for bringing about the desirable results he formulates, and we can assure him that any reasonable scheme he may put forward will be of deep interest to us.

THE publication of *Teratologia*, a quarterly journal, edited by Dr. Ballantyne, has ceased from lack of public support. This is greatly to be regretted, as the two volumes already issued contained much valuable information on this important subject. It is to be hoped that the publication will not be allowed to die, but that Dr. Ballantyne may receive the names of sufficient new subscribers to justify him in resuming his interesting journal.

LORD WINDSOR has undertaken to convene a public meeting to establish a fund for the Cardiff College of the South Wales University in order to meet the conditions upon which the Government have promised £20,000 and the Drapers' Company of London £10,000.

THE Board of Agriculture have issued their annual report of proceedings under the Contagious Diseases (Animals) Acts. The report states cheeringly that at no previous period have the cattle been so free from these diseases as at present.

A SESSIONAL meeting of the Sanitary Institute will be held at the Parkes Museum on Wednesday, Feb. 12th, at 8 P.M., when Dr. S. Monckton Copeman will open a discussion on the Influence of Subsoil Water on Health.

A COMPETITIVE examination for seventeen commissions in the Army Medical Staff will be held on Feb. 7th and following days. Particulars thereof will be found in our advertisement columns.

LORD RAYLEIGH has accepted the post of Scientific Adviser to the Trinity House, which has been in abeyance since the resignation of the late Professor Tyndall.

INFIRMARY MEDICAL SUPERINTENDENTS' SOCIETY.

The usual monthly meeting of this society was held at the Central London Sick Asylum on Jan. 18th, the President, Mr. J. R. Lunn, F.R.C.S.Ed., being in the chair. Mr. John Hopkins showed cases of Multiple Growths in Skin, Double Paralysis of Seventh and Eighth Nerves, Aneurysm of Innominate in Female, Charcot's Disease of Spine, Syringomyelia, Tubercular Dactylitis, Addison's Disease, Morphœa Herpetiformis, and Cranio-tabes. A discussion was raised by Dr. Harris concerning the Treatment of Refractory Patients. A vote of thanks to Mr. Hopkins for his interesting series of cases terminated the proceedings.

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THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER IV.

The Influences of Youth and Training.—The Goodchilds.—Gerard's Hall.—Courtship and Marriage.—The Start in Practice.—Prospects in Argyll Street.—Fire and Attempted Murder.—A Digression Promised.

IT will not be amiss here to summarise very briefly the salient points in the home-life and education of Thomas Wakley, for the circumstances of his youthful bringing-up dictated his adult career in a very striking manner. Brought up in the country among a simple and patriarchal folk, he positively detested shams of all sorts. A pretender was to him the biggest rogue the world could know. As a member of a large family he was endowed with a deep sense of what was fair. He obtained his own share of whatever of material enjoyment or comfort was going by favour, for he was the youngest, and could not have exacted it from his elders; but he obtained it because it was freely recognised in Mr. Henry Wakley's house that share and share alike in common goods was the only fair plan. So that there was early implanted in his breast a keen sense of rudimentary justice—that crude kind of socialism so often seen in children—only developed to an extraordinarily high degree. He desired that everyone should have his due, and in his student days this desire had developed to such a degree that towards all who belonged to classes whose manners or methods he found oppressive he could scarcely bring himself to be impartial. He had been brought up in an atmosphere of obedience as well as of equity, so that the privileges he obtained at home were the return of allegiance given. From a domestic environment of this sort he went to a London hospital, and found a condition of things that was directly at variance with all his primitive and deeply implanted ideas of fair-play. He found that although he was allowed to do his part—viz., pay his fees and attend his classes—the authorities were not prepared to do their part by him. The lectures advertised were not delivered by the eminent people who received the fees, but by their demonstrators; the one great practical help to the acquisition of a sound knowledge of pathology—viz., presence at post-mortem examinations—could only be secured by the clandestine feeing of the post-mortem-room porters; the honorary staff from whose lips he was to learn the science of healing were capricious in their visits and were generally dumb upon the occasions when they put in an appearance; the list of operations was not published to the students, and only the favoured pupils of the staff knew what was going to be done by the great men and when. And, to cap all these injustices, he found that he was relegated to a class in his profession marked out from the beginning to constitute the rank and file, not in the least through want of personal merit, but because he had not paid exorbitant fees to apprentice himself to a great man. He had no objection to being a general practitioner; on the contrary, he desired to be. He had lived for three years in the house of two hard-worked members of this class. He had shared their labours and known their trials. He could estimate—no one better—the amount of good that they did and the amount of influence for good that they were able to exercise over the community. He saw these men, who did their duties for the most rigidly according to their lights, always set on one side and looked down upon by their privileged brethren, who had themselves obtained their places in the medical hierarchy by purchase and not by merit, and who, being in posts of office, took the emoluments and omitted to do the work. These things he saw; his sense of justice revolted at them, and none the less because he personally suffered from their effects, and these things sufficiently account for his attitude towards hospital officials, for his readiness to find them wanting in skill, and his pertinacity in convicting them of unfairness and nepotism. His championship of the cause of the general practitioner was as obvious in its origin as it was outspoken in its activity.

Lastly, as a member of the public he held that the public were unfairly treated; for the students, whose instruction was carried on in such a haphazard manner, were subjected to no properly stringent tests before being turned loose to earn their living as best they might. (This is not a decrying of our professional grandparents, but only a claim for the rank and file of them that wherein they did well they did it by their own exertions and to gratify their own feelings of what was right, and not in response to liberal assistance from the hospitals to which they had paid fees or to searching examinations by the colleges to which they belonged.) Against the injustice of all this the righteous anger of Thomas Wakley found vent. He was a reformer in the large sphere of constitutional politics, but in medical politics he was an avenger. He represented the wrath of the profession as a whole against the mismanagement of their leaders, and the wrath of a member of the public against a profession that allowed itself to be so mismanaged.

It was in this mood that Thomas Wakley arrived home in the character of a qualified man. His primary intentions were to practise in the country, and he stayed for some months at Membury after being qualified, during which time he was in search of an opening. He made many friends in the neighbourhood during this his first real vacation, and that he impressed them favourably is well shown by the generous response that Devonshire and Somersetshire friends were wont to make for many years to his appeals in the columns of THE LANCET—and this in cases where it could only have been the personality of the editor and not at all the urgency of the appeal, that swayed them.

His wish to get speedily into practice was enhanced by the fact that he desired to become the favoured suitor of an attractive young lady whom he had known during the last year of his student life, although he could not be said to be strictly and formally engaged to her. He had, however, obtained from her father a sort of qualified approval of his suit, accompanied with some very clear words as to the responsibilities that he would be expected to assume upon marriage. For Mr. Goodchild, the father of the future Mrs. Wakley, though a wealthy man, stated that he had no intention of supporting a son-in-law, but that his daughter's husband must maintain himself and his wife by his own labour.

Mr. Goodchild was an excellent specimen of the wealthy merchant at the time. His warehouses and offices were in Tooley-street, and his home was at Hendon, then situated four miles inside an area that was absolute country, being considerably less accessible to the true Londoner than Guildford, Windsor, and even Hertford are now. He was a lead merchant, and a man of great wealth, and large business connexions. Young Wakley made the acquaintance of the family by accident. The men in the Tooley-street works were very constantly in need of the services of the adjoining hospitals. Mr. Goodchild was a governor of St. Thomas's Hospital and a regular annual subscriber, but not to the extent that his great income would have warranted the hospital authorities in expecting, or to the extent that was proportionate to the labour that was expended upon the

[1] Chapters I., II., and III. were published in THE LANCET of Jan. 4th, 11th, and 18th respectively.

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care of his numerous workmen by the medical officers of the charity. He employed at that time a very large number of hands—two or three hundred,—one or two of whom were almost daily in receipt of surgical assistance. The treasurer of St. Thomas's Hospital, to whose attention this was brought, sent young Wakley and his friend Wiltshire to call at Hendon and ask Mr. Goodchild whether he felt disposed to support in a special manner a special appeal that was being made on behalf of the hospital, having regard to the fact that his workmen were so largely benefited by their proximity to the building. Mr. Goodchild not only made a generous response to the lads' appeal—he gave them a £100—but invited them to luncheon and, later, to a party at his house. The acquaintance thus made ripened into friendship, and the friendship between the youngest daughter and Thomas Wakley soon became subject to the natural transformation into love. It says a great deal for the influence that young Wakley had over those whom he desired to move and please that he should have obtained Mr. Goodchild's consent to an early, if conditional, engagement, for although he was not accepted as a suitor for Miss Goodchild's hand while still a student, yet he was accepted almost immediately upon becoming qualified, and when he had no remarkably good chances of prosperity and no expectations from home. He was one, and the youngest, of eleven children. To the eldest son the land would infallibly go. If he shared equally with the other nine it was all that he could expect. Probably he would be considered to have received his patrimony when his indentures and his London course of study were paid for. From a worldly point of view, therefore, he could not be considered a good match. He had his youth and his profession, and that was all. But Mr. Goodchild was a judge of men, and he saw in the young man the stuff of which success is made, though he did not guess the direction whence that success would come, and for a time at least cordially disapproved of those very departures that made his son-in-law a man whose biography has to be written instead of a family practitioner. It was probably with some idea of asserting his independence that Thomas Wakley thought of setting up in practice in his own part of the world. There the esteem in which his father and family were held would be some sort of counterpoise to the wealth of the prospective father-in-law. Be that as it may, the idea came to nothing, for in 1818 he returned to London and went into private practice in the City.

He lived at this time, and had done so for one year, in Gerard's Hall, an old residential inn, and before the Fire of London the palace of the Lord Mayors of London. It possessed a remarkably fine crypt used as a cellar, and stood in Basing-lane on a site that was afterwards cleared in the construction of Queen Victoria-street. Thither he returned and proceeded to look about him for patients and a practice, occupying himself in the meantime in completing the gaps which he felt to exist in his education. The testimony of Mr. Ivatts, the proprietor of the Hall, to his behaviour while he was that gentleman's tenant shows that, so far from feeling that because he was no longer a student he had earned the right to cease from work and consider himself a completely informed man—a very common attitude with the newly-fledged medical man—he doubled his energies and spared no pains to learn. He was an ambitious, able, enthusiastic young lover, and intended to leave no stone unturned in his struggle to deserve his wife and support her. Mr. Ivatts had occasion under distressing circumstances that will soon be narrated to make a statement upon oath as to the manner of life pursued by Thomas Wakley at this time, and he then said that he was particularly regular in his mode of living, temperate, keeping much to himself, and exceedingly studious, rising at three and four o'clock even in the winter to read and write. It was often a matter of wonder in later times to his enemies and friends alike, where he had got his great store of information from, and how he came from his earliest start on a journalistic career to control so adept as well as so virile a pen. It was to the rigid self-denial of his life in Gerard's Hall that he owed both. For hours each day—hours snatched from the sleep that was due to his labours—he steadily worked, reading copiously and writing assiduously, and it was thus that he acquired the solid learning and literary skill which enabled him to become a champion in journalism from the moment that he entered the lists.

During the following year an end was put to his period of probation, and he was assisted by Mr. Goodchild, now satisfied that in Thomas Wakley his daughter would find a man capable of taking care of her, in acquiring a West-end practice. The practice lay at the top of Regent-street, and his predecessor, Samuel Malleson, in disposing of it did not desire to dispose of his house also. Mr. Goodchild arranged that Wakley should take a house in Argyll-street, No. 5, which was hard by Mr. Malleson's house, and should purchase that gentleman's drugs and the furniture of the surgery and transport them thither. This was done; but the exact money consideration for which Wakley was indebted to his future father-in-law upon these transactions is not known. The sum of £400 was paid for the goodwill of this practice, and a similar sum as premium on the lease of the house in Argyll-street, then a fashionable and important street—and more money was paid both in Argyll-street for the fixtures and to Mr. Malleson for his stock and sundry furniture, so that £1000 would probably not have covered the immediate outlay. Mr. Goodchild was, however, a business man, and cannot be said to have made a bad investment, having satisfied himself that his future son-in-law was a trustworthy and competent man, for, of course, everything turned upon that. The practice that was obtained for £400 cash had brought in Mr. Malleson £690 during 1818, and by the autumn of 1819, when it was purchased, £560 had already been earned.

Argyll-street was then a street of reputable private residences. The town house of the Earl of Aberdeen shed an aristocratic flavour over the eastern side, and most of the inhabitants were persons of consideration if not wealth. No. 5 was a house of fifteen rooms, including the back study, which was used as a surgery, and was of the type and date of the houses now standing in the older parts of Maddox-street. It had a double dining-room and a double drawing-room and half-a-dozen bedrooms. This house its new possessor set to work to furnish handsomely, and those of us of this generation who are sufficiently modern to have begun to appreciate again the beauty, as well as the solidity, of the effects with which our grandparents delighted to surround themselves, know that the style of upholstery in the twenties was not an economical one. It is probable that Thomas Wakley would not have equipped his rooms so lavishly had he not been preparing for the almost immediate reception of a wife, but imposing externals were every whit as valuable then as they are now in forming a good connexion, and Mr. Goodchild's sure commercial instinct would have certainly gone in support of a somewhat lavish expenditure. From the first the venture was a successful one. The young practitioner retained the old patients who had been transferred to him, and new ones called him in both in the neighbourhood and in the City, and when in February, 1820, he brought his wife home he did so with every prospect before him of a successful career in general practice. He was married on Saturday, Feb. 5th, 1820, at St. James's Church, Piccadilly, and the announcement of his wedding, as it appears in *The News* of Feb. 6th, takes us back an enormous stride in history, for the same issue informed the world of the death of King George III.

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The temptation at this point to write in the style of the dime novel, that the fair horizon of the young couple would soon be terribly overcast, is very strong, for the old contrast between present security and sad trouble in the immediate future was never more dramatically exemplified than in the case of Thomas Wakley's early married life. In February he brought his young wife to her new home. His marriage was one of affection, but also one of material advantage to him, while his prospects in his professional career were exceptionally bright. Young, talented, good-looking, healthy, a married lover, and a successful man, he was beloved by his friends and respected by all with whom his profession brought him into relation. In six months his home was broken up, his house burnt to the ground, his health seriously injured, his practice well-nigh destroyed, and last, but most serious of all, his reputation was gravely impugned, the slanders that were rife about him being as wide-spread as they were malignant.

On the evening of Aug. 26th, 1820, No. 5, Argyll-street, was burnt to the ground, while a murderous attack was made upon the hapless owner. The extraordinary as well as terrible events that occurred on that night will have to be dealt with at some length, and to place them with perfect clearness before the reader a digression must be made, and circumstances in the Cato-street conspiracy and the execution of the infamous Thistlewood must be detailed at the risk of appearing to give information upon matters of historical notoriety.

(To be continued.)

Pharmacology and Therapeutics.

THE SALTS OF STRONTIUM IN ALBUMINURIA.

THE salts of strontium are said to often cause a notable and rapid diminution of albumin. They are also indirectly useful by aiding digestion and acting as an intestinal antiseptic. According to Constantin Paul strontium is only useful in the parenchymatous forms. It is in cases of albuminuria where it is useful to moderate the loss of albumin that the use of strontium is specially indicated. The formula recommended by Gaucher and Gallois is—lactate of strontium, 50 grammes; water, 375 grammes; three tablespoonsful—i.e., six grammes of lactate of strontium—a day.

TREATMENT OF NIGHT SWEATS OF PHTHISIS.

M. A. von Székely recommends cotoine as being very useful in checking night sweats of phthisis, which he gives in doses of about 4 centigrammes. Cotoine is obtained from Coto bark, and may be in the form of a pale yellow amorphous powder or minute, curved, crystalline prisms, non-volatile, slightly soluble in water, soluble in alcohol, ether and chloroform, caustic and carbonated alkalies. It has a bitter taste. It may be given in the form of a solution or be made up with sugar into cachets. M. A. von Székely also employs tincture of belladonna in combination with liquor arsenicalis, and considers this combination to be more successful than preparations of belladonna alone. Externally, a lotion for the body may be used with advantage, as hydrate of chloral, 6 grammes, and distilled water and alcohol, each 100 grammes.

TREATMENT OF EPILEPSY BY SOLANUM CAROLINENSE (HORSE-NETTLE).

Dr. C. S. Potts gives an account of some cases treated by this drug in the *Therapeutic Gazette*. In seventeen cases in which a fair trial was given twelve showed more or less improvement, while the other five (two of them organic) showed no improvement. The general conclusions arrived at by Dr. C. S. Potts were:—(1) That the drug has a decided influence for good upon the epileptic paroxysm; (2) that this influence is probably not so great or so sure as that obtained by the use of antipyrin and the bromide salts, or even of the mixed bromides; (3) that in those cases in which it is of service it relieves the paroxysms without causing other unpleasant symptoms, such as are sometimes caused by the use of large doses of the bromides; and (4) that the dose ordinarily recommended (ten to fifteen drops of fluid extract) is too small, and that as much as a teaspoonful or more four times daily is often needed to secure results. No unpleasant effects from the drug were observed excepting a mild diarrhœa in some cases.

VINEGAR AS AN ANTIDOTE TO CARBOLIC ACID.

Professor Carleton of New York states that vinegar is an excellent antidote to phenol. When applied to a cutaneous or mucous surface which has been burnt by the acid the characteristic whitish appearance produced by the caustic at once disappears and subsequent scarring is to a large extent prevented. Vinegar is also said to be equally good as an antidote when the acid has been taken into the stomach, and it is recommended that the patient should as soon as possible drink some vinegar mixed with an equal part of water, after which other measures may be taken to more fully counteract the poison.

THE ASHANTI EXPEDITION.

THE British expedition to Ashanti has entered Kumasi without opposition, and another of our small wars has been brought to a successful issue, and on this occasion without bloodshed, although the lamented death of Prince Henry of Battenberg has detracted from the perfect smoothness and success of the expedition. It now remains for us to make such terms with the Ashantis as will prevent all probability of our having to undertake a succession of such expeditions in the future, and will put an end to their invasion of neighbouring territories with the slaughter of the tribes and people friendly to ourselves. There is nothing in the soil or climate of Ashanti, or the semi-savage race inhabiting it, or, so far as we know at present, in the natural products of that country to make it a desirable British possession; but we are, nevertheless, bound to protect ourselves against recurring incursions and expensive expeditions in the future. It will also be possible, we hope and believe, to put an end at the same time to the human sacrifices and gross cruelties that have so long been practised in this part of the world. The way in which the expedition has been designed and carried out is deserving of great praise. It shows that nothing has been overlooked or neglected which our previous experience as regards war in, and knowledge of, that country had shown to be necessary or desirable. The undertaking has been so far carried to a successful issue with an almost scientific precision with respect to the calculation of the time required. There has been no hitch in the arrangements as to the organisation and working of the transport, the commissariat supplies, the medical and hospital services, and the labours which had to be undertaken and accomplished by the Royal Engineers. The expedition forms an excellent object lesson of what can be done under seemingly very adverse conditions by the exercise of forethought and timely provision. The work has been accomplished by selecting the proper season for carrying it out and by fulfilling all the essential requirements for its success. There were only three officers and fifty-one men of the expeditionary force in hospital at Kumasi and the troops are stated to be in excellent spirits; indeed, cricket matches were being talked of by the troops. There was, of course, no loss of life from fighting as on the previous campaign, but the great risks that had to be encountered were those to health, and the difficulties were those of transport, food, water-supply, and engineering. The results as regards the preservation of health are highly creditable to the medical service. Kumasi is reported to be built on a good site, but, apart altogether from any unhealthiness of climate, the total neglect of all sanitation of even the most elementary kind in the town (which mainly consists of miserable native huts) the remains of dead bodies, the surface filth, and the presence of burial grounds, have created a foul state of the soil, of which bad smells are sufficient evidence. European troops occupying such a site are not likely to escape disease, and we may be sure that every effort will be made to expedite matters, and to place the force in the meantime in the best practicable positions. We may assume that the troops from this country

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will be re-embarked as soon as practicable, and that the force left behind in Kumasi will be mainly composed of Houssas, with possibly a detachment of the West India corps, and that these will occupy some well-protected or fortified post armed with Maxim guns. It is quite possible that subsequently some elevated and healthy site may be found available for a military force in the vicinity of Kumasi.

(FROM OUR SPECIAL WAR CORRESPONDENT.)

Fosu, West Coast of Africa, Dec. 22nd, 1895.

HOPING to waylay an official postman going south to the coast, I sit down to write you from this native village, only some eighteen or twenty miles from Prahsu and fifty-three from Cape Coast Castle, on the road to Kumasi, Ashantiland, which place I have reached with my eight hammock boys and nine carriers, all well, I am happy to say, so far. The trip up has taken some eight days to accomplish, and been undertaken under climatic and other conditions little understood by folks at home. I received permission from the authorities to accompany the advance force of Engineers and Houssas to Prahsu, but could not get away until past 8 A.M., by which time the sun was well up, so that we—my hammock boys and I—had, what we might reasonably have expected, a scorching hot time of it. The delay in getting my men off as early as I should have done was no fault of mine; Government had secured all the bearers, some five or six thousand. They want even more.

On account of the great cost as well as difficulty of transport of even the barest necessaries of life, the Commander-in-Chief had decided to give no rations of any kind to the war correspondents this side of Prahsu, or a point about halfway between Cape Coast Castle and Kumasi. I, like others in a similar predicament, have therefore been called upon to buy beforehand and carry with me everything I required for the journey till the time comes for all the rest of the troops to arrive and we cross the river in question.

The Government rate of pay for all labourers employed has been fixed at 1*s.* 3*d.* each per diem. Of this sum every man has to be given by the officer in charge or private employer 3*d.* in the silver coin of our realm daily to provide himself with rations, whilst the remaining shilling is withheld for very obvious reasons. But when our stock of ready money is exhausted what will happen? Will he, our *fidus Achates*, desert us in the African forest when he finds us bankrupt and his dole not forthcoming, or commit some other revengeful act? The negro is fastidious to a nicety where money is concerned, for he declines nowadays to deal in copper at any rate of exchange, and would consider himself grossly insulted if you were to offer him a penny for the most trifling of his wares you might require. But, taken on the whole, the Fantiman, although somewhat exacting and punctilious in his bargains, is by no means a bad sort of fellow after all. Externally, anatomically considered, he is as fine a specimen of humanity as one might well desire to inspect. Proportionally well made, with a muscular development betokening immense strength with great agility, he becomes at once an object of surprise as well as interest to all who see him for the first time on his native soil. He is an excellent pedestrian, for with a head load weighing some 50 lb. or 60 lb. he can do his twenty-five or thirty miles a day, and some have accomplished even more, and this, too, with bare feet and over by no means good roads. He is an early riser, is quite content to start on his journey with an empty stomach, but after going some five or six miles lets his employer or fare know by explicit and unmistakable signs that he has gone far enough and his stomach is empty. It is of small use your laying out a plan to go to such a point before stopping without consulting first with your head native man, for if you do you will be sadly disappointed, and, in spite of all your threats or remonstrances, find your hammock suddenly lowered and yourself shot out into the road before you are capable of realising the ridiculous position you occupy in the arrangement betwixt yourself and your hammock men.

To return to my start from Cape Coast Castle. When a good deal of wrangling between my headman and the carriers had been got through—this being the usual prelude to a start—I got into my hammock, which, swaying from side to side and suspended as it is from a bamboo pole, rested on the woolly craniums of four admirably sized, well-knit, muscular, polished, ebony-coloured negroes. This novelty in locomotion produces, they say, in some cases a sensation akin to incipient sea-sickness; the disagreeable feeling soon wears off, however, and is succeeded in turn by one of extreme drowsiness, ending in comfortable sleep. My hammock boys, as upright as any adjutants, swung forward with a rhythm of pace and regularity of movement perfectly marvellous to behold, whilst their merry laughter and incessant chatter, ever and anon exchanging jokes with their fellows in the rear, lent additional interest to the journey.

About five miles out, descending by a somewhat narrow, umbrageous path, we passed beneath several clusters of gigantic bamboos, growing to a height of 100 ft. into a dark green dell where the rays of a bright, tropical sun must have ceased to penetrate for years past, and then crossing over some dark-brown, muddy-looking stagnant pools bestrewn with broken and rotting pieces of timber, we emerged from this swampy, sickly, malarial-looking spot with serious misgivings as to its effect upon our health hereafter. Hastily pressing forward, we were glad enough to escape from this fever den, and, ascending by a narrow path flanked on both sides by prolific African vegetation, finally reached the summit of a more healthy looking plateau, where we came upon a genuine native village, with its irregularly built collection of mud huts, and as our men were tired as well as hungry, made this spot our first resting station for the day.

Prahsu, 3 P.M., Dec. 23rd, 1895.

Have just arrived here with my hammock boys, all fit. Find the officers and men also well, there being only two cases of slight fever in the hospital erected at this place. I examined the water at all stopping places and have found it much better than I had been led to expect.

THE LONDON UNIVERSITY.

A MEETING of Convocation of the University of London was held at Burlington House on Tuesday last for the purpose of discussing the question of the reconstitution of the University. Mr. E. H. Busk presided.

In opening the proceedings the Chairman alluded to the death of the Vice Chancellor, Sir Julian Goldsmid, and a resolution recording the deep feeling of the House for the loss sustained was unanimously adopted.

Dr. Silvanus Thompson moved the report of the annual committee. This was seconded by Mr. Tyler and carried.

On the motion of Dr. Silvanus Thompson, seconded by Mr. Cozens Hardy, Q.C., the following resolution was adopted in substance by the annual committee:—

"That this House desires the early introduction into Parliament of a Bill for the reconstitution of the University similar to that introduced last year by Lord Playfair, but with an inserted clause securing to the Senate, to Convocation, and to other bodies affected the right of appeal to the Privy Council on any of the provisions which may hereafter be settled by the Statutory Commission."

As an amendment Dr. Napier moved the following:—

"That all the words after 'that' be omitted, and in their place the following be inserted: 'In view of the fact that Convocation numbers about 4000 members, most of whom are precluded by their avocations and distance from town from attending a meeting in London, and of the desire recently expressed by the Lord President of the Council to ascertain the opinion of country graduates, it is inexpedient for this House to express any opinion as to the desirability of legislation for the reconstitution of the University of London until, in compliance with the desire of the Lord President of the Council, the views of all members of Convocation have been ascertained.'"

Dr. W. J. Collins, supporting Dr. Napier's amendment, felt that it was a prudent one.

Dr. Sansom and others also took part in the discussion.

On a division the figures were as follows:—

For the amendment	240
Against	466
Majority against the amendment ...	226

After some discussion as to the adjournment of the House Dr. Thompson's resolution was agreed to without a division.

The House then adjourned.

INCREASE OF STIPEND OF A MEDICAL OFFICER OF HEALTH.—The city council of Norwich at its last meeting resolved, by an unanimous vote, to increase the salary of their medical officer, Dr. Cooper-Pattin, from £400 to £500 per annum.

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THE NEW PHOTOGRAPHY.

WE are pleased to be able to present to our readers in this issue two reproductions from photographs of (Fig. 1) a human hand, and (Fig. 2) of a frog taken by means of the radiations from a Crooke's phosphorescent tube, actuated by a so-called high-frequency current (a current of high pressure and periodicity). We are indebted to Mr. A. A. C. Swinton for the use of the powerful apparatus in his laboratory at 66, Victoria-street, S.W. Both the frog and hand were placed upon an aluminium sheet, resting upon a rapid dry plate in position in the ordinary dark slide. While aluminium is transparent to these particular radiations it is proof against ordinary light. The exposure in the case of the frog was nearly twenty minutes, but probably a shorter exposure would have been better. The hand was exposed for about four minutes and a half. The negative was developed in the ordinary way, and bromide prints were obtained from it by Mr. G. Stanton. The fact that the accompanying illustrations were reproduced by "process" is sufficient evidence of the distinctness of the original. We doubt not that as the details in the experimental manipulation are improved the results will be brought still nearer perfection.

FIG. 1.

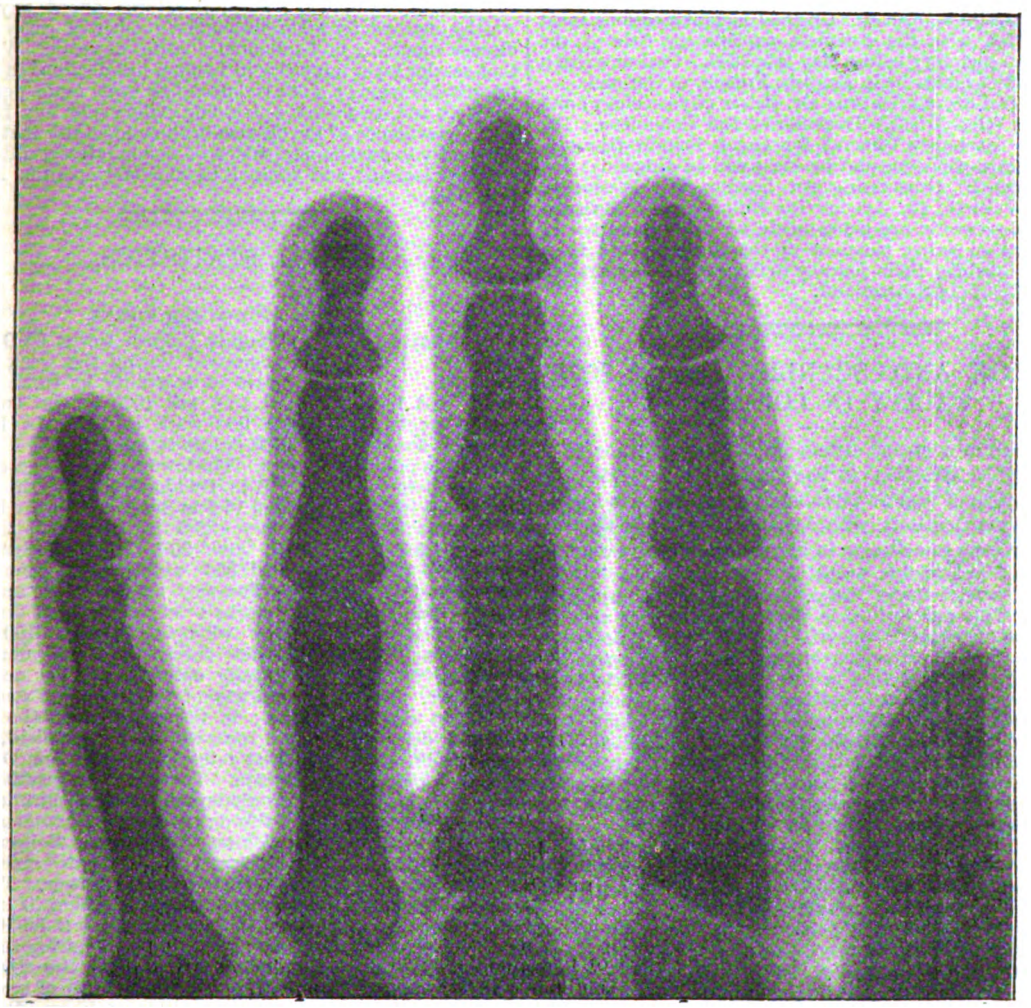
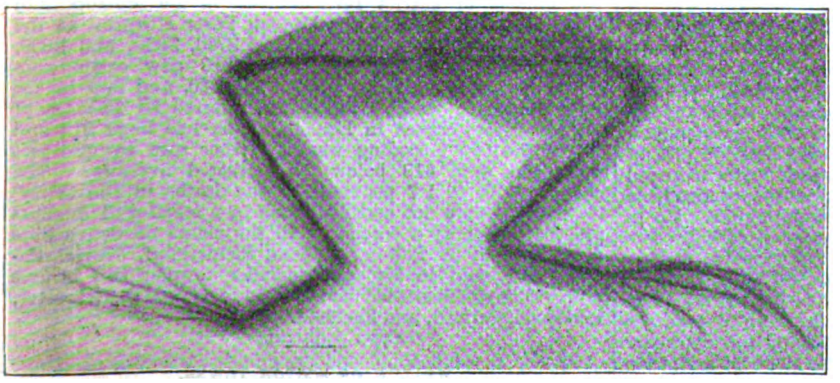


FIG. 2.



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INTERNATIONAL PERIODICAL CONGRESS OF GYNÆCOLOGY AND OBSTETRICS.

THE second session of this Congress will be held at Geneva during the first week of September, 1896. The list of names is a comprehensive one, and the subjects chosen are such as are likely to promote profitable discussion. Members of the Congress desirous of taking part in the discussions of the questions of the official programme should inform the secretary before July 5th, 1896, stating definitely the questions they desire to discuss. Original communications must be forwarded, with the complete explanatory title of the same, to the secretary before May 5th, 1896. Oral or written communications must be in English, French, or German.

The General Secretaries are: Dr. Betrix (Gynæcology) and Dr. Cordes (Obstetrics). Treasurer of the Committee: Dr. Bourcart. Secretary General for Great Britain (through whom all correspondence and business will be directed): Dr. Leith Napier, 67, Grosvenor-street, London, W. President: Professor Vulliett, 18, Avenue Du Mail, Geneva, Switzerland. Arrangements are being made by the Committee of Organisation to assist members of the Congress and their families to combine their journey to Geneva with excursions in different parts of Switzerland.

ISOLATION AND SCARLET FEVER MORTALITY IN LONDON.

THE *Times*, in a recent article on Infectious Diseases in London, called attention to the marked increase in the number of cases of scarlet fever lately treated in the Metropolitan Asylum Hospitals, with special reference to the rate of mortality from this disease in London in recent years, and asserted that isolation is probably "far less efficacious in controlling scarlet fever than is generally hoped and believed." This conclusion, in view of the serious cost of our isolation hospitals, is one which should not be accepted without careful and exhaustive examination of all aspects of the question. The decline in the London death-rate from scarlet fever has been remarkable and continuous during the past thirty-five years. The rate per million, which was 1133 in the ten years 1861–70, fell to 600 in 1871–80, and further to 335 in 1881–90; while in the first five years of the current decennium the rate has further fallen to 239. We are at a loss to see that these figures afford any support to our contemporary's assertion that "it looks as if scarlet fever were going to prove more fatal in 1891–1900 than in 1881–90, when the proportion of cases isolated was less than half the proportion now isolated." In spite of an undoubtedly epidemic tendency of the disease in 1892 and 1893, the rate of mortality in the five years 1891–95 did not exceed 239 per million, and was below the rate in any preceding five years on record. It is difficult to see in these figures any evidence of the failure of isolation. May we not rather attribute the practical abolition of scarlet fever epidemics in London in great measure to the increase and improvement of isolation? During the ten years 1861–70 the annual death-rate from scarlet fever five times exceeded 1000 per million, whereas since 1870, when the isolation hospitals were first opened, this rate has only been exceeded once, namely, in 1875, and since 1880 the highest rate in any year has been 553, in 1881. There can be no possible question as to the marked decline of scarlet fever mortality coincidently with the increase of isolation, but this very increase of admissions to the isolation hospitals has given rise to the assertion that it indicates an increased prevalence of the disease in spite of the reduced rate of mortality, which is attributed to the disease having assumed a milder type. The true import of the hospital statistics from this point of view is far more difficult to determine. Up to 1891 the highest number of cases of scarlet fever admitted to the Metropolitan Asylum Hospitals in any year was 6537 in 1890, whereas in 1892 the number rose to 13,093, and in 1893 and 1894 it was 14,548 and 11,598 respectively. This sudden and marked increase was probably due far more to increased accommodation, more complete notification, and a greater readiness on the part of the public to use the hospitals, than to real increase in the prevalence of the disease. In 1878 only 7 per cent. of the fatal cases of scarlet fever in London occurred in these isolation hospitals, whereas in 1894 the proportion exceeded 75 per cent. It is obvious that under these circumstances the admissions to these hospitals can afford no trustworthy measure of the prevalence of the disease in London. Again, if, as is very probably the case, there was a tendency in the earlier days of these hospitals to admit the worst cases, and if in those days the cases were admitted in undue proportions from those classes living under the lowest sanitary conditions, it must lead to untrustworthy conclusions either to assume that the decline in the proportional mortality of the disease in those hospitals indicates a corresponding decline in the general mortality of the disease, or that the hospital returns afford any trustworthy method for ascertaining the number of cases of the disease occurring in London in a series of years. We know that scarlet fever mortality in London has declined in a most remarkable manner since isolation has been more generally adopted, and we see no convincing evidence of any increase in the prevalence of the disease in the undoubted fact that a constantly increasing proportion of comparatively mild cases are now isolated and treated in the Metropolitan Asylum Hospitals.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6029 births and 4098 deaths were registered during the week ending Jan. 18th. The annual rate of mortality in these towns, which had been 20·7 and 18·5 per 1000 in the two preceding weeks, rose again last week to 19·7. In London the rate was 19·1 per 1000, while it averaged 20·1 in the thirty-two provincial towns. The lowest rates in these towns were 11·0 in Croydon, 14·0 in Huddersfield, 14·1 in Blackburn, 14·4 in Plymouth, and 14·5 in Sunderland; the highest rates were 23·8 in Burnley, 25·6 in Liverpool, 26·9 in Bolton, 20·7 in Halifax, and 30·1 in Wolverhampton. The 4098 deaths included 564 which were referred to the principal zymotic diseases, against 563 and 508 in the two preceding weeks; of these, 208 resulted from measles, 135 from whooping-cough, 100 from diphtheria, 42 from scarlet fever, 41 from diarrhœa, 38 from "fever" (principally enteric), and not one from small-pox. No death from any of these diseases was registered last week in Croydon; in the other towns the lowest zymotic death-rates were recorded in Huddersfield, Hull, and Cardiff, and the highest rates in Birmingham, Oldham, Norwich, Salford, and Bolton. The greatest mortality from measles occurred in Wolverhampton, Oldham, Birmingham, Burnley, Norwich, and Salford; and from whooping-cough in Oldham, Sheffield, Leicester, Derby, and Bolton. The mortality from scarlet fever and from "fever" showed no marked excess in any of the thirty-three towns. The 100 deaths from diphtheria included 59 in London, 9 in West Ham, 6 in Birmingham, 4 in Liverpool, and 3 in Halifax. No fatal case of small-pox was registered during the week under notice either in London or in any of the thirty-two large provincial towns. There were 73 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 18th inst., against 77, 68, and 66 at the end of the three preceding weeks; 17 new cases were admitted during the week, against 12, 9, and 20 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2883, against 2798, 2830, and 2839, on the three preceding Saturdays; 280 new cases were admitted during the week, against 184, 320, and 290 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 314 and 320 in the two preceding weeks, further rose to 336 last week, but were 413 below the corrected average. The causes of 70, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bolton, Oldham, Sunderland, Newcastle-upon-Tyne, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Leicester, Liverpool, Salford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns,

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which had been 21·0 and 19·6 per 1000 in the two preceding weeks, further declined to 19·5 during the week ending Jan. 18th, and was slightly below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 10·3 in Perth and 15·2 in Edinburgh to 21·0 in Glasgow and 22·5 in Dundee. The 570 deaths in these towns included 32 which were referred to whooping-cough, 15 to diarrhœa, 6 to measles, 6 to scarlet fever, 5 to "fever," and 3 to diphtheria. In all, 73 deaths resulted from these principal zymotic diseases, against 82 and 63 in the two preceding weeks. The fatal cases of whooping-cough, which had declined from 35 to 23 in the three preceding weeks, rose again to 38 last week, of which 22 occurred in Glasgow, 10 in Dundee, and 5 in Aberdeen. The deaths from scarlet fever, which had been 9, 16, and 2 in the three preceding weeks, rose again to 6 last week, and included 5 in Glasgow. The fatal cases of measles, which had risen from 7 to 14 in the three preceding weeks, declined again to 6 last week, of which 2 occurred in Glasgow, 2 in Dundee, and 2 in Greenock. The deaths referred to different forms of "fever," which had been 7, 4, and 3 in the three preceding weeks, rose again to 5 last week, of which 2 occurred in Glasgow and 2 in Edinburgh. The deaths from diseases of the respiratory organs in these towns, which had been 135 and 131 in the two preceding weeks, were 136 last week, and were 99 below the number in the corresponding week of last year. The causes of 40, or more than 7 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 28·8 and 28·3 per 1000 in the two preceding weeks, further declined to 22·5 during the week ending Jan. 18th. During the past three weeks of the current quarter the death-rate in the city has averaged 26·5 per 1000, the rate during the same period being 19·1 in London and 16·5 in Edinburgh. The 151 deaths registered in Dublin during the week under notice showed a decline of 39 from the number in the preceding week, and included 4 which were referred to the principal zymotic diseases, against 7 in each of the two preceding weeks; of these, 2 resulted from "fever," 1 from small-pox, 1 from scarlet fever, but not one either from measles, diphtheria, whooping-cough, or diarrhœa. These 4 deaths were equal to an annual rate of 0·6 per 1000, the zymotic death-rate during the same period being 3·2 in London and 0·9 in Edinburgh. The deaths referred to different forms of "fever," which had been 3 and 2 in the two preceding weeks, were again 2 last week. The fatal case of small-pox was the first recorded within the city during the present year. The 151 deaths in Dublin last week included 30 of infants under one year of age, and 24 of persons aged upwards of sixty years; the deaths of infants showed an increase, while those of elderly persons were considerably below the number recorded in any recent week. Nine inquest cases and 6 deaths from violence were registered; and 43, or more than a fourth, of the deaths occurred in public institutions. The causes of 12, or nearly 8 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-COLONEL CHURCHILL, lately Principal Medical Officer of the Home District, who has been succeeded by Surgeon-Colonel O'Farrell, has embarked for India to take the place of Surgeon-Major-General T. Maunsell, C.B., transferred on promotion to Malta. Brigade-Surgeon-Lieutenant-Colonel Macrobin has been appointed to the medical charge of the 3rd Station Hospital at Aldershot on return from foreign service. Surgeon-Major Johnstone has been posted to Devonport, Surgeon-Major Emerson to Colchester, and Surgeon-Major Sharpe to Dublin. Surgeon-Captain Perry has been posted to Chatham, and Surgeon-Captain Daly, from half pay, to Dublin. Surgeon-Major Corker has embarked for India.

ARMY MEDICAL STAFF.

Brigade-Surgeon-Lieutenant-Colonel Richard H. Carew, D.S.O., to be Surgeon-Colonel, vice D. C. Grose, deceased. Surgeon-Lieutenant-Colonel Edward H. Joynt, M.D., to be Brigade-Surgeon-Lieutenant-Colonel, vice R. H. Carew, D.S.O. Surgeon-Lieutenant-Colonel Harvie Scott, M.B., retires on retired pay.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Captain J. R. Roberts (Bengal), Agency Surgeon, Gilgit, is, on return from leave, appointed to officiate temporarily as Medical Officer, 2nd Regiment, Central India Horse, from date of assuming charge, vice Surgeon-Captain J. B. Jameson, M.B., who has leave for one year and during the absence on leave of Surgeon-Captain C. M. Moore, M.D., or until further orders. Surgeon-Captain R. H. Maddox (Bengal), is appointed to the medical charge of the Bundelkhand Political Agency, in addition to his military duties. Surgeon-Major Alexander Samuel Faulkner, Bombay, Agency Surgeon, Ulwar, retires from the Service.

NAVAL MEDICAL SERVICE.

The following appointments are announced: — Staff-Surgeon Ernest E. Bray to the *Boscawen*, additional, for Portland Sick Quarters. Surgeon F. A. Brice to the *Thunderer*.

VOLUNTEER CORPS.

Artillery: 1st Forfarshire: Surgeon-Lieutenant D. A. Caruthers is appointed Lieutenant. The Highland: Surgeon-Lieutenant H. W. Mann, M.B., resigns his commission. *Rifle:* 1st Volunteer Battalion the Prince of Wales's Own (West Yorkshire Regiment): Alexander Reid Stoddart, M.B., to be Surgeon-Lieutenant. 16th Middlesex (London Irish): Surgeon-Lieutenant J. E. C. Bradley, M.B., resigns his commission.

VOLUNTEER MEDICAL ORGANISATION.

The report of the sub-committee appointed by the Council of the Volunteer Medical Association, and consisting of Surgeon-Lieutenant-Colonel Baines, V.D., Surgeon-Captain Squire, Surgeon-Lieutenant Fletcher, and Surgeon-Major Watson, V.D., secretary, has unanimously expressed the opinion that the departmental, as distinguished from the regimental, aid should be delegated to a departmental corps, and that all bearer companies should be specially recruited, uniformed, and administered as laid down in the Regulations for Volunteer Medical Staff Corps, and that they should be styled bearer companies, V.M.S.C., but that the existing regulations for regimental aid are sufficient and should not be interfered with, all that is required being to bring it into touch with headquarters and to provide for its efficient inspection. The Volunteer Medical Service, being the junior branch of the Medical Department of Her Majesty's army, is under the Director-General as the responsible head of the Department. The committee considers that the gap between the Army Medical Department and the Volunteer Medical Service is too wide, and suggests (1) that a medical officer with administrative rank should be attached to the headquarters of the Army Medical Department as responsible head of the Volunteer Medical Service, and (2) that in each district command a Volunteer medical officer should be appointed by selection from the senior medical officers of the district, and preferably for a limited period, by the Director-General as Volunteer principal medical officer of the district, with administrative rank.

With regard to executive officers the committee express the following opinion:—

Brigade-Surgeons-Lieutenant-Colonel: While this rank should be open to all medical officers of the Volunteer force who by length of service or other merit should have deserved it, it should not necessarily attach to the senior medical officer of an infantry brigade, as it does at present. Surgeon-Lieutenant-Colonel: In the regulations for promotion to this rank no changes are suggested. Surgeon-Major: The length of service required for promotion to this rank should, with certain conditions, be somewhat reduced in the case of an officer commanding a bearer company. Surgeon-Captain and Surgeon-Lieutenant: No suggestions are offered with regard to the present regulations as to these appointments. Regimental Medical Officers generally: Regimental medical officers should never be detached from their corps for other duty except under the circumstances when more medical officers than are necessary for the work of that unit are present, in which case the senior medical officer of the brigade, with the approval of the commanding officer, may utilise the services of such additional officers as he may require. The committee are

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unanimously of opinion that, under no circumstances whatever, should regimental bearers ever be detached from their regiments.

Regimental Stretcher-bearers: There is a tendency to forget that the duties of a Volunteer regimental bearer are entirely secondary to his duties in his company ranks. They should never be withdrawn from the ranks unnecessarily. Stretcher drill should never take place during a battalion drill, and the inspection of the stretcher detachment should never take place during the annual inspection of the regiment. Volunteers should not be allowed to wear the "S.B." badge unless they have reported themselves to, and been accepted by, the regimental medical officer.

THE CHITRAL HONOURS.

The following honours to medical officers are announced in the *London Gazette* of Jan. 24th: "The Queen has been graciously pleased to give orders for the following appointments to the Most Honourable Order of the Bath, in recognition of the services of the under-mentioned officers during the operations of the Chitral Relief Force. To be Ordinary Members of the Military Division of the Third Class, or Companions of the said Most Honourable Order—viz., Surgeon-Major-General Thomas Maunsell, Army Medical Staff, and Surgeon-Colonel George Thomson, Indian Medical Service."

Surgeon-Major-General Thomas Maunsell, A.M.S., L.R.C.P.I., L.R.C.S.I., entered the Army as Assistant Surgeon on Oct. 1st, 1860, and was made Surgeon on March 1st, 1873. He was promoted to Surgeon-Major on June 17th, 1875, to Brigade-Surgeon on Oct. 16th, 1886, to Surgeon-Colonel on March 10th, 1892, and to Surgeon-Major-General on Nov. 24th, 1895. He served with the Burmese expedition in 1886–87 (mentioned in the despatches, medal with clasp), and also with Chitral relief force under Sir Robert Low in 1895 as Principal Medical Officer to the force, for which service he has received the well-merited honour gazetted above.—Surgeon-Colonel George Thomson, M.B., M.Ch., also received a similar honour for his distinguished services in the same expedition, of which he was Principal Medical Officer to the lines of communication. He became Assistant-Surgeon on Oct. 2nd, 1865, and was promoted to Surgeon-Colonel on April 1st, 1893. Surgeon-Colonel Thomson, who is Principal Medical Officer of the Lahore district in India, served in the Afghan War of 1878–79, for which he received a medal and was mentioned in despatches.

THE ROYAL MILITARY ACADEMY.

From the report of the Board of Visitors to this institution for 1895 we gather that the Academy was inspected on June 24th last, and that the health of the cadets had been very good during the past year, with the exception of January and February, when much sickness prevailed, mainly attributable to pulmonary diseases and influenza. The average height of the cadets was 5 ft. 9½ in., and their average age 19·8 years. The board were informed that the hospital had been altered and is now in a good condition, and is capable of holding ten patients comfortably. They are of opinion that the building is now sufficient for ordinary cases. They, however, still consider that arrangements should be made at the Herbert Hospital for the reception of cadets in cases of infectious disease of a serious type. They were informed that the construction of an infectious hospital (which they were given to understand last year had been proposed and recommended by the Director-General of the Army Medical Department) had not been provided for in the Estimates of the current year. The Board of Visitors animadvert upon the system that had arisen of allowing so long an interval to elapse between the time of the cadets passing out of the Academy and their being commissioned as unfair to the cadets and their parents, and in contravention of the Standing Orders of the Royal Military Academy.

NAVAL MEDICAL EXAMINATION.

An examination of candidates for fifteen commissions in the Medical Department of the Royal Navy will be held in the Examination Hall, Thames-embankment, on Monday, May 4th, 1896, and following days. The forms to be filled up by candidates will be supplied on application to the department.

ARMY MEDICAL SCHOOL, NETLEY.

The seventy-first session of the Army Medical School, Netley, will be brought to a close on Friday, Jan. 31st, when the prizes will be distributed by General the Right Hon. Sir Redvers Buller, V.C., G.C.B., K.C.M.G., Adjutant-General to the forces.

Correspondence.

"Audi alteram partem."

THE REPRESENTATION OF THE MEMBERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND ON THE COUNCIL.

To the Editors of THE LANCET.

SIRS,—In the leading article on Direct Representation which appears in THE LANCET of Jan. 18th it is written: "To do Mr. Page justice, he yielded quickly to the suggestion of Mr. Tweedy to omit the less generous parts of his amendment, and to be content with the simple, and what will be the historical, averment, that it is desirable to give the Members of the College direct representation upon the Council." With every wish to accord the full share of credit due to Mr. Tweedy for the part he has played, accuracy and justice to others demand some modification of the sentence. The first speaker at the meeting to suggest to Mr. Page that he should omit all but the first clause of his amendment was Mr. Norton. He was followed, after Mr. Morris had spoken, by Mr. Willett, Mr. Tweedy, another Fellow whose name I do not know, and then by myself. In THE LANCET report of Jan. 11th no notice whatever is taken of the speeches made by Mr. Norton, the Fellow referred to, and myself. My own remarks are given with substantial accuracy in one of your contemporaries, although accidentally misplaced. It will there be seen that in supporting the recommendation to Mr. Page I went a step further than my predecessors in the discussion, and advised the withdrawal of the original resolution and the adoption of Mr. Page's modified amendment as a substantive motion. This course was followed by Sir Robert Craven and Mr. Holmes, and the more readily, I believe, in consequence of my suggestion and my appeal to the Fellows that there might be no difference of opinion as to details, but as large a vote as possible in favour of the principle of direct representation of the Members of the College on the Council. There is one other correction which ought to be made. In the report of Mr. Tweedy's first speech in THE LANCET of Jan. 18th he is credited with the observation that he had great difficulty in pursuading the Members' deputation to the committee of Council to consent to Fellows as well as Members being eligible as representatives of the Members of the College on the Council. I did not hear Mr. Tweedy at the meeting put forward this exclusive claim, and feel sure that he would not do so of his own accord, as other members of the Council on the Deputation Committee, including at least the President and myself, also urged the deputation to yield the point.

In justice to all concerned, I feel that these corrections ought to be made. For my own part, I have upheld from the first the claims of the Members of the College to representation on the Council. In my Carmichael Essay of 1879 I advocated the measure, and in my second essay in 1887 I answered all Mr. Erichsen's objections besides giving at length the arguments in its favour. In the pages of the medical press I have done the same, and in 1889 when I came forward with Mr. Tweedy and Mr. Lawson Tait as a candidate for a seat on the Council upon this platform I made it a prominent part of my programme. On every available occasion I have spoken in the Council or on committees in favour of it. I supported it about ten years ago, and, contrary to my own interest, spoke at length in favour of it at two annual general meetings of Fellows and Members; and on one occasion since my election to the Council I avowed my continued adhesion to this just and necessary measure. I have been, therefore, and still am, deeply interested in securing its success, and I regretted the omission of my speech in THE LANCET as I was naturally anxious to show that I had not deserted my colours on a "historical occasion," as well as to indicate that I did not concur with the opinion expressed by Mr. Tweedy at the meeting that members of the Council should abstain from trying to influence votes. It has been decided in the Council that at the meeting of the Fellows members of the Council, with the exception of the President and Vice-Presidents, should sit with the Fellows and join in the debates if they wish to do so. Mr. Morris was quite within his right in speaking at

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length against the Members' claims, and so were Dr. Ward Cousins, Mr. Willett, and myself in expressing our opinions in favour of this great and far-reaching reform.

I am, Sirs, yours truly,

Jan. 20th, 1896. WALTER RIVINGTON.

*** We are sorry that Mr. Rivington's speech was inadvertently omitted. Seeing that professional reporters are excluded from these meetings it is not possible to publish anything like a verbatim report.—ED. L.

"A PLEA FOR THE PASTEUR TREATMENT OF HYDROPHOBIA."

To the Editors of THE LANCET.

SIRS,—When I started with my wife for Paris in charge of the eleven Sunbury children who were bitten by a dog reported rabid by the district veterinary inspector, it was with an open mind as to the Pasteur treatment. Taking into consideration the prevalence of rabies, and in face of the mis-statements which are being published in some papers which are likely to influence people in their decision whether to undergo treatment or not, I made it my business, as far as in me lay, to obtain exact statistics. As this is a question of life or death, and as I cannot but consider that the efficacy of the treatment is established, I trust you will give me space to make public the result of my inquiries, and to answer the *Star*, Captain Parkis, and Mr. Collinson.

Professor Roux, the discoverer of antitoxin, informs me that the mortality among persons bitten by rabid dogs prior to the introduction of the Pasteur treatment was, on the best authorities on the subject—such as Dr. Leblanc and the Comité d'Hygiène de la France—(1) in cases of those bitten in the head, from 80 to 90 per cent.; and (2) in cases of those bitten on the limbs or body, 20 per cent. I am indebted to Professor Roux for the reports of the Pasteur Institute for the years 1891, 1892, 1893, and 1894, from which I have extracted the following :—

Year.	Number of persons healed.	Deaths.	Percentage of deaths.
1886	2,671	25	0·94
1887	1,770	14	0·79
1888	1,623	9	0·55
1889	1,830	7	0 38
1890	1,540	5	0·32
1891	1,559	4	0·25
1892	1,790	4	0·22
1893	1,648	6	0·36
1894	1,387	7	0·50
Total	15,817	81	0·55

As the Pasteur treatment does not profess to arrest the disease after it has reached a certain stage, but is essentially a preventive measure, just as vaccination is, speaking generally, a preventive against small-pox, and as by experiments on dumb animals it has been proved that should a person die from hydrophobia within fifteen days of the termination of the course of treatment that the disease had advanced too far before its commencement for it to be of any avail, and as such cases cannot, therefore, be counted as failures, such deaths have been eliminated from the above totals. There were in 1891, 1892, 1893, and 1894 respectively, four, three, two, and five cases. I am not in possession of the figures for the previous years, but as the Institute library is open for public inspection, and a record of every case can be seen, doubtless they can easily be obtained. From this it is self-evident that the statement that Ethel Wilkins was discharged cured is absolutely false. I took especial pains to find out if I might consider my charges safe at the end of the treatment. I was told that it was impossible to say, but that experience showed that after sixty days from the original bite persons who had undergone treatment might be reasonably considered so. It is stated that this poor child was killed by the treatment, and Dr. Murphy is publicly accused of having caused her death because he advised that she should be sent. She was bitten on the left eyelid, the most dangerous of all places, and there should be no doubt in any reasonable person's mind that the virus had taken such hold of her before the treatment began, and that the disease had made too great progress, for it to arrest its course. I had my charges under my eye daily, almost hourly, and I can say most positively that not for one minute did any feverish or uncomfortable symptoms show themselves during treatment, and I have heard of none since the children have been at home. The value of preliminary veterinary examinations are being discounted and spoken of as worthless.

Sir R. Nicholson has informed me that ever since the Brown Institute has been established, and the inoculation tests have been carried on there, this test has in every case confirmed the reports of veterinary surgeons, based upon post-mortem examination. Again, it is affirmed that the Pasteur treatment is practised without any method. This is not true. I was present when the children made their first visit to the Institute. A most minute examination was made of their wounds, every inquiry was made of the circumstances of each case by the medical officer, who then ordered seven of the children to attend once a day for fifteen days for inoculation, two for eighteen days, one for twenty days, and one for twenty-one days; the last, a boy, had been bitten in the face, and he had to attend twice a day for the first three days.

One word more, and I hope, Sirs, you will print the following in large type and so show your sympathy with the righteous indignation which is felt in Sunbury, and which I am sure will be re-echoed by the public at large, for what I am about to relate. Incredible as it may appear, yet it is still a fact, that someone has circulated broadcast in Sunbury (one of the parents had five copies left at his door) a number of the *Star* containing the harrowing details of Ethel Wilkins' death, &c. *This* when the sorrowing parents were separated from their young ones, before the time for anxiety had passed. What good could this do? . Rightly or wrongly, the children were undergoing the treatment; what could be gained by trying to frighten the parents out of their senses? One poor woman (her husband was at night work) I am told paced the road near her house for hours in unutterable anguish. What is this but refined cruelty? If the anti-Pasteurians wish for a hearing, such methods as this is the wrong way to get it; it must, indeed, be a weak case which needs to be urged in this way. No; these poor people are blinded by prejudice and misplaced fanaticism. If they have any reliable evidence let them put it forward; if they can prove that the Buisson treatment is more efficacious than the Pasteur treatment everyone will welcome the news; but in a case of life and death let them stick to facts, and, above all, let them refrain from inflicting unnecessary pain, posing the while, I suppose, as humanitarians.

I am, Sirs, yours faithfully,

The Vicarage, Sunbury, Jan. 7th, 1896. F. H. VIGNE.

"THE LANCET" SANITARY COMMISSION ON DISINFECTION.

To the Editors of THE LANCET.

SIRS,—I see by your issue of Jan. 11th that you are publishing articles upon the disinfection of clothing &c. I should be happy to receive anyone commissioned by you and show him the working of my invention in a machine that has been in constant use since 1884. I would also ask your attention to the part of your article from which it might be inferred that the use of steam under substantial pressure entails the employment of specially skilled workmen. This is not accurate, for my patent steam disinfectors have been used for fifteen years by unskilled labourers with the most satisfactory results. Your journal is so widely read that any expression of opinion by you therein such as would lead your readers to believe that the employment of steam under pressure necessitates the services of skilled engineers is likely to do considerable injury to the reputation of my apparatus, and I trust that you will kindly correct this false impression which might certainly be gathered from your article.

I am, Sirs, yours faithfully,

WASHINGTON LYON.

Asylum-road, Peckham, S.E., Jan. 18th, 1896.

*** The efficiency of the Washington Lyon apparatus for disinfection by steam under pressure was established by the careful investigation of Dr. Klein and Dr. Parsons, whose report appeared in the Supplement of the Fourteenth Annual Report of the Local Govt. Board. There is, therefore, no necessity to repeat the experiments. We did not state that the

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employment of steam under pressure "necessitates the services of skilled engineers," but "that the use of high pressure steam involved a *certain* amount of engineering knowledge and skill." Surely this is not overstating the case where the use of a safety valve and the control of a pressure gauge are involved.—ED. L.

A HEAVY FŒTUS.

To the Editors of THE LANCET.

SIRS,—A fœtus exceeding in weight even that recorded by Dr. Bennett in THE LANCET of Jan. 11th was observed by me while I attended in the maternity department of the Berlin Charité in 1891. It measured 55 centimetres (nearly 21¾ in.) in length and weighed about 7 kilogrammes (15½ lb.). The mother was considered to be at the full term of pregnancy about six weeks before her actual delivery, and the diagnosis of twins had been made by all the physicians who had seen the case. It was the fifteenth child of a strongly-built woman a little over the average height. The labour proceeded rapidly and without any complication, and within three hours from the first appearance of the pains the child was born without instrumental help and the placenta expelled. I am, Sirs, yours truly,

HEINRICH OPPENHEIMER.

Crossfield-road, Belsize-park, N.W.

"THE CHURCH OF TO-DAY."

To the Editors of THE LANCET.

SIRS,—Our attention having been called to the article in your issue of the 18th inst. associating *The Church of To-day* with the publication of improper advertisements, we must ask you to give equal publicity to the fact that the paper on which your remarks were founded was issued without our authority and without our knowledge, and that we decline to be held responsible for its contents.

Faithfully yours,

THE EDITORS OF "THE CHURCH OF TO-DAY."

The Church of To-day. Offices: 144, Fleet-street, London, E.C., Jan. 22nd, 1896.

*** We have received the above letter from the editors of *The Church of To-day* in reference to an annotation that appeared in our last issue, entitled "The Religious Newspapers and Immoral Advertisements." Our comments were founded upon a copy of a newspaper bearing the title *The Church of To-day;* the date was Jan. 3rd, 1896, and the imprint of the publisher was as follows: "Printed and Published for the Proprietors at the offices, 144, Fleet-street, London, E.C." As the offensive paper emanated, or purported to emanate, from the same address as that from which the editors of *The Church of To-day* now address us we may be allowed to express mild wonder at their ignorance of the circumstances under which it was issued.—ED. L.

THE BATTLE OF THE CLUBS.—XVIII.[1]

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 200.)

CLUB PRACTICES IN RURAL AND MINING DISTRICTS.

IN the course of this investigation it has been necessary to exercise considerable discretion so as to avoid compromising the medical officers of clubs, &c., who very courteously gave me the information required. The dependent position of some of these medical officers made it impossible for them to face the risks of publicity. They would have been dismissed from their employment had it been known that they had complained. Though under-paid and often rudely treated, yet they were not in a position to sacrifice their club practice. Nor was there any reason to incur such a risk. No good purpose would have been served. Other medical men, unfortunately, could readily be found to take their places. Thus, when describing the state of affairs in various towns I have mentioned but few names, and as these towns were large and the clubs and medical aid societies numerous, it has not, I trust, been easy to trace the precise sources whence I derived my information. But in the present instance such concealment would be absolutely impossible; as this time I have to deal, not with a town, but with a village of from 4000 to 5000 inhabitants. In this village there is but one single practitioner, and therefore but one medical man from whom I could have obtained the greater part of my information. Under these circumstances I am obliged to refrain from mentioning the name of the village in question; and when I have fully explained the position of its medical practitioner the need of such reserve will be still more apparent. Therefore, I will speak of, let us say, Dr. Dash, the sole medical practitioner in the village or little town of—we will call it—Woolwick. Dr. Dash has to attend, not only the inhabitants of the village where he dwells, but those of the outlying districts, making in all a population of about 6000 persons situated within a radius of three miles. This necessitates a drive of six miles to cross from one end to the other of the locality. In this rural district there are lodges of the Oddfellows' and the Foresters' Friendly Societies. There is a local friendly society which admits both men and women members and a family club which is purely a medical aid society, for it gives no financial benefits. The subscription to this family club is 9*d.* per quarter. Out of this sum the medical officer has to pay 5 per cent. to the collector, and the members also pay the collector an additional ½*d.* per quarter. There are in this village no less than eight medical aid clubs or societies, and Dr. Dash insisted that if he did not have all these clubs he could not earn a sufficient livelihood. There is also the Refuge Life Insurance Company, which has organised medical aid for its members, and the National Medical Aid Company, which does not scruple to put sick children on its books for ½*d.* per week. Dr. Dash described to me the case of a child who was put on the books on a Monday and died before the week was out, so that for visiting this child at its own house two or three times, and giving a death certificate, he received the munificent sum of ½*d.*, the amount of the one week's subscription.

The club practice is so extensive that, apart from the numerous patients who came to his surgery, Dr. Dash has frequently to make fifty visits in the course of a single day, and barely a quarter of these are to private patients. To get through the work it is necessary to keep three horses and an assistant. During the influenza epidemic the pressure was so great that he had to see patients when his own temperature was at 102° F., and was only allowed to leave off work when he became delirious. As a result of this epidemic his health was shattered and he found himself out of pocket. For such a practice it was necessary to have the constitution of a horse and a very thick skin so as to support the insults and rude messages constantly received. Yet it would be impossible to refuse to do the club work, for three-quarters of the entire population are members of the clubs, and the remaining quarter would not provide sufficient private practice. Most of the club members pay their medical officer three shillings a year. They are entered as members without any medical examination; the medical officer's advice is never sought. Thus persons suffering from tuberculosis are placed on the books and become patients from the very first week of membership. Nor are any stringent measures taken to see that they pay their subscriptions regularly. If the subscription has lapsed the member simply secures another card, presents himself as a new member, and thus avoids paying anything at all when in good health. Dr. Dash has no control over the lists given to him. Some of the members have paid regularly all the time, and some have only paid for a week or two when they call him in. The addresses of the members entered on the medical officer's list are not given. It is impossible to verify such lists. Dr. Dash must accept everything on trust and is entirely at the mercy of the collectors, for it would be suicidal to complain.

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham.

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Club influence is supreme in the village, for the most notable inhabitants of Woolwick are members of friendly societies or medical aid associations. The tradesmen who are of sufficient importance to have their addresses given in the local directory are nearly all members of medical aid societies. The principal manufacturer of the district, who pays some £600 to £700 a week in wages and about £50 a year in rates and taxes, is a member of the Oddfellows' Friendly Society, and Dr. Dash must attend him for 4s. a year. Nor is this a slight matter, for this manufacturer is suffering from hæmoptysis. This patient is rich enough to keep hunters. During the winter he goes for a few months to the seaside, and in passing through London sees a consulting physician to whom he pays a two guinea fee. Yet in his own village he is content to accept medical advice on workmen's terms as a member of the Oddfellows' Friendly Society. His brother, who is not a member of any club, actually called on Dr. Dash some time ago and proposed to contract with him for medicine and advice for a fee of 1s. 6d. Three other members of the same family who have died from phthisis were all members of clubs, yet this family have been in prosperous circumstances for many years. Another club patient cultivates a farm of some 300 acres and two of his sons have a farm of 200 acres, yet they never pay a medical fee. The local brewer, who is the owner of a public-house and several private houses, together with his wife are members of a medical aid society. Nearly all the publicans belong to medical clubs, as also the local druggists and a large contracting builder who owns several bay-windowed houses. Another manufacturer, a wealthy retired factory owner, a master bricklayer who employs many men, the local printer and photographer, the principal tailor and his two sons, together with the wives of most of these men, are all members of the clubs or medical aid societies, and only pay at most 4s., but more generally only 3s., a year for their medical attendance. Nor is it only the tradesmen and business men who thus avoid paying medical fees; the stewards of both the political clubs, the minister of a chapel, one of the churchwardens, the organist, and the Sunday-school teacher attached to the Church of England are all members of clubs, and in most cases the wives of these persons also subscribe to medical aid organisations. What, then, remains for private practice? In the surrounding and smaller villages the grievance is just as great. It is all club practice, and it all tends to the degradation of the profession.

Out of the twelve notable inhabitants who have been elected to constitute the urban district council five are members of medical clubs. A great portion of the Poor-law guardians are likewise members of the medical clubs and were so thoroughly imbued with the idea that medical service could be obtained for next to nothing that when they came into power they at once proceeded to reduce the salary of the Poor-law medical officer from £70 to £40. Other districts of the same importance would pay about £100 a year for the work that has to be done. The Poor-law district extends to over 13,000 acres and comprises a population of about 6000 people, but the Poor-law guardians estimate the salary of the Poor-law medical man on the club patients' scale, with which, as members of friendly societies, they are best acquainted. The same thing applies to the district board. They have fixed the salary for the medical officer of health at only £25 per annum, yet in this district of shallow wells it is often necessary to analyse water by the albuminoid process. Of course, it was natural to suggest that Dr. Dash should refuse to accept such conditions. In that case, Dr. Dash explained, another medical man would at once be brought into the village, who, as he put it, "would rent a house for 7s. 6d. a week, live on a red herring, and give his patients brown sugar and water till he had got a good footing." At Woolwick there is just enough to do to tempt some young medical man who has not yet obtained a practice. At the present rate of payment there is not enough for two practitioners to live comfortably. Dr. Dash feels that if any of the clubs were dissatisfied with him they would at once call in a new man. The practice, divided with the newcomer, would then be insufficient for both parties. To prevent this Dr. Dash must submit himself to every possible exigency and never make any protest. He must allow the clubs to be abused by the wealthy. His club patients govern the vote of the Poor-law guardians and of the Urban District Council. If he complained in any way they would at once appoint a stranger as medical officer of health and Poor-law medical officer. Dr. Dash would then not only lose these two appointments, which are barely worth having, for the pay is only about a third of what it should be, but he would have a competing medical man brought into his village. With this dread of competition ever before him Dr. Dash must satisfy every exigency, however unjustifiable, and accept responsible public office at any salary the club men who govern the district may think sufficient. To the poor people who crowd his surgery he must be equally subservient. They must not be allowed to grumble about the club medical man; and to ensure their goodwill it is best to treat them more in accordance with their palates than with their symptoms. To satisfy these patients it is necessary to give them a lot of medicine. It must be a dark medicine with a strong taste, preferably of peppermint. Something warming and comforting is required, so that when any friends call at the patient's house he can offer them a glass of his medicine. When a little hospitality can thus be shown at the medical man's expense it greatly enhances his popularity; besides, the patients will have a high opinion of the treatment if all the neighbours find some pleasure in tasting his medicine and declare that it is "very good stuff." But, as Dr. Dash remarked, "this sort of thing wears my soul out, and I cannot get an assistant to remain with me for long, for they naturally object to such poor and degrading work."

Dr. Dash felt convinced that no local effort of his could mend matters. He described himself as absolutely and helplessly at the mercy of the clubs. They could at any moment call in some other practitioner and so reduce his income as to compel him to leave the place. He felt, however, convinced that those who were actually paying 3s. a year for medical aid could well afford to pay 5s., and it should be rendered "infamous" for any medical man to accept less. If at the same time a wage limit was enforced, so that well-to-do people could not join medical aid societies but had to pay the usual private practice fees, a second medical man could come to Woolwick. There would then be work enough for both to earn a sufficient income, particularly if the salaries of the Poor-law medical officer and the medical officer of health were raised to what is generally given in other similar districts. The establishment of such conditions would not only be a great advantage to the medical profession, but would tend to reduce the death-rate and improve the health of all the inhabitants. The club patients would be better and more conscientiously treated. Their fancy for peppermint-water coloured with burnt sugar might not be so extensively indulged, but they would get medicaments better suited to their complaints and ailments.

From Woolwick I went to a village some miles away where nearly all the inhabitants are colliers. Here, also, most of the work is contract work. There are branches of the Foresters, the Oddfellows (Manchester Unity and Nottingham Order), the Hearts of Oak, &c. The subscription used to be 4s. a year, but it has been reduced to 3s. 6d. There is, however, only one female club in the neighbourhood which gives medical aid. It belongs to the Nottingham Order, and the women pay at the same rate as the men—namely, 3s. 6d. per annum. Most of the men in the neighbourhood, being miners, are engaged in a hazardous work; consequently, 2d. per week is deducted from their wages, which provides for medical attendance and sick pay when accidents occur. The largest colliery in the neighbourhood pays the local practitioner £50 a year as a retaining fee in case of accidents. But from the same men the same medical practitioner also very frequently receives 3s. 6d. a year because they are members of a friendly society. Sometimes they belong to more than one club or friendly society, so that when they are ill they get more money as sick allowance than the amount of wages they are able to earn when well. Altogether, the club practice brings in about £400 a year, out of which drugs, &c., have to be provided. Then there are the midwifery fees, which at 10s. 6d. represent another £70 per annum. Of course, there are very few private patients; still, for a rural practice a fair livelihood might be made here but for the action of the speculating insurance companies who have appeared on the field. The National Medical Aid, the British Workman, and the Refuge companies had asked the local practitioner on whom I called to work for them. He, however, refused to serve under these lay and commercial companies. Consequently they introduced into the village a new medical man. Thus this district, which for many years had been in the hands of one single practitioner, has now two practitioners. The new

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medical man has written letters to the friendly societies asking them to appoint him as their medical officer, though, of course, he knew that the post was already filled. In the face of such competition how is it possible to ask that the 3*s.* 6*d.* now paid should be increased? The pay, whatever it is, must be accepted, otherwise it will go to the newcomer; and in such districts there is very little else to be done but club work. Indeed, it is better that the miners should belong to clubs, otherwise their medical attendant will get no pay at all. A penny, twopence, and even sixpence a week can be obtained without difficulty, but shilling fees or eighteen-penny fees with medicine included are never paid. On these terms my informant had outstanding bills due to him to the amount of about £200, and he looked upon this money as lost. Therefore, it was preferable that this class of patients should belong to a club; but there ought to be better means of controlling the members who are in clubs, so that the medical man might know whether he really obtained all the money that was collected, and there should be a wage limit. With a wage limit there would be some chance of a little private practice in these neighbourhoods. Any attempt, however, to bring about improvements on these lines is foredoomed to failure so long as speculating companies introduce new men ready to accept work on any terms.

(To be continued.)

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Hospital Sunday.

SUNDAY, the 12th, was the twenty-sixth anniversary of Hospital Sunday in Liverpool, and was duly observed in almost all the churches and chapels in and around Liverpool. The weather was much less inclement than in recent years, people not being prevented by this cause from attending their usual places of worship. The full results are not known yet, but it is hoped that they will not be less than those of last year.

The Liverpool Northern Hospital.

At the annual meeting of the Northern Hospital last week a donation of £5000 towards the erection of the new hospital was announced. The donor was Mr. Henry Tate, whose munificence has shown itself on many previous occasions. The new hospital will occupy its present site with a greatly enlarged area, and every effort will be made to secure a hospital which shall in all respects be fully up to date. Liverpool will then possess four general hospitals with accommodation for 700 in-patients—not too large a number for so vast a city.

The Alleged Murder by a Dentist.

Herbert Westworth, dentist, was yesterday fully committed for trial at the next assizes for the wilful murder of his wife on the night of the 12th ult. Death was shown to have been caused by severe internal injuries.

Jan. 21st.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Meeting of Contributors to the Edinburgh Royal Infirmary.

AT an adjourned meeting of contributors to the Edinburgh Royal Infirmary, held on Jan. 20th in the council chambers, the report of the contributors' committee appointed to consider the annual report of the managers was presented by Mr. James Haldane, C.A., convener of the committee. During the year ending Oct. 1st, 1895, the total number of patients treated had been between 35,000 and 36,000. As regards the ordinary receipts, the accounts showed an increase of £1400, the total amounting to £31,086, as against £29,686 in 1894. The larger part of the difference was due to the fact that the miners, having made no contribution during 1894, the year of the coal strike, had in the past year sent two years' contributions. The expenditure for the year, which amounted to £39,395, showed, after making allowance for fewer patients daily in the wards, a reduction of £2135, a reduction which arose to a large extent on medical expenditure, and for which the thanks of the contributors were due to Surgeon-Major-General Lithgow for his careful supervision in that connexion. The extension scheme which had been in abeyance was now to be proceeded with under a modified form. They would receive on May 15th a bequest by the Earl of Moray of £60,000 and one of £25,000 by Mr. Peter Waddell of Leith. Special donations for the extension fund had been received to the amount of about £14,000, and had been applied towards the purchase of property costing £30,350, on which the new buildings were to be erected. The infirmary was in debt altogether about £43,000, which debt they proposed to clear out of the above-mentioned bequests, leaving a surplus of about £32,000. The new buildings were estimated to cost from £50,000 to £60,000. The modified scheme included the erection of a new pavilion containing eighty-four beds, and a new laundry. There was also under consideration special provision for the use of electricity, improvement of the operating theatres, a bathing department, isolation wards, and arrangements for the teaching and use of massage. The committee expressed their satisfaction with the management of the affairs of the infirmary during the past year.

Edinburgh University Lectureship.

At a meeting of the University Court last week approval was expressed of the manner in which Dr. Argyll Robertson had performed the duties of the Lectureship on Ophthalmology during his tenure of office, and Mr. George A. Berry, M.B., F.R.C.S. Edin., senior ordinary ophthalmic surgeon to the Royal Infirmary, was elected to the vacant post.

Disease among Cattle near Edinburgh.

A species of so-called cow itch or scabies has appeared among cattle in the neighbourhood of Edinburgh, and has been communicated in some cases to persons working about the cattle. Orders have been issued under the Edinburgh Municipal and Police (Amendment) Act, 1891, to stop the supply of milk from premises where this disease exists, but whether this is true scabies as it occurs in the human subject is very gravely doubted by competent authorities.

Microscopical Society of Glasgow.

At an exhibition of specimens of interest on the 17th inst. a number of Microphotographs showing the Different Stages of Nuclear Division in Epithelial Cells from the Conjunctiva, and prepared by Dr. Thomas Reid, were exhibited by Dr. Bell Todd.

Legal Action for Medical Fees.

An action recently raised in the Ayr Sheriff Court by Dr. Charles Stewart against the Garnock Shipping Company is of some importance. Dr. Stewart had been called in to attend one of the firemen who had been injured whilst on board a vessel lying at Glasgow, and claimed for this a fee of a guinea. The defenders denied liability on the ground that the ship lying in a home port the master was not liable to pledge the shipowner's credit for such surgical attendance. The sheriff, however, decided that the Merchant Shipping Act, which enacts that "the expense of all medicines and medical and surgical advice and attendance given to any master, seaman, or apprentice whilst on board his ship" applied to the present case, and accordingly he gave decree for the medical man's fee with expenses against the shipping company.

Glasgow Royal Asylum for Lunatics.

The annual meeting of contributors to this institution was held on Jan. 17th. The report stated that at the commencement of the year the asylum contained 495 patients. The directors are continuing their policy of gradually excluding all pauper patients, of whom the asylum now only contains sixty-five. At the same time they have increased the accommodation for private patients who are only able to pay a limited sum for board. In this way the asylum will, it is hoped, be of special value to a class whose position demands consideration.

Aberdeen Water-supply—Purification of the River Dee.

Up to Dec. 31st, 1895, the Aberdeen town council had expended the sum of £4089 8*s.* 2*d.* on wages, materials, &c., in connexion with the sewage irrigation works at Kincardine O'Neil, Aboyne, Ballater, and Braemar, above the intake of Aberdeen waterworks. During last quarter Mr. Thomas Jamieson, F.I.C., city analyst, examined seventeen samples of the water-supply from the Dee. He reports as follows: "All good quality. Free ammonia ·001 to ·021, albuminoid ammonia ·058 to ·088 parts per 100,000."

Public Health Matters in Aberdeen during 1895.

During 1895 the sanitary inspector seized 30,949 lb. beef,

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583 lb. mutton, 997 lb. pork, 232 lb. veal, 28 lb. of rabbits, 4617 lb. of "offal," 1242 lb. tinned meat, 146 lb. fruit, and 26,618 lb. of fish, amounting to 29 tons 4 cwt. in all; 5424 nuisances were registered and 4362 abated; 583 patients were removed to hospitals, and 4932 patients were supervised by the sanitary staff at home. There were 2818 deaths from all causes during the year, being a death-rate of 21·07 per 1000 inhabitants.

Jan. 22nd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Coming Examination at the Army Medical Board.

THE announcement of seventeen vacancies in the Army Medical Service to be competed for next month has naturally attracted some attention among young and recently qualified medical men. There used to be a regular Army class of men preparing at the Dublin schools for competition at the Army and Naval Medical Boards, but it has ceased to exist within the last few years, and the reason is not far to seek. Irish candidates have, for some reason, begun to suspect (doubtless without sufficient cause) that the phrase "No Irish need apply" holds good in their case. This idea owes its origin, probably, to some remarks which have occasionally appeared in some of the service journals. For example, in the *Broad Arrow*, a leading article appeared some months ago calling attention to the fact that competition for entry into the Naval Medical Service was not as keen as it should be, and that the number of candidates from Ireland had notably fallen off. The writer went on to remark:—"Formerly a considerable portion of candidates were men who qualified at Irish centres, but Hibernian degrees are no longer regarded favourably by the examiners." Imagine the feelings of men holding the qualifications of the University of Dublin or the Royal University of Ireland when they find themselves thus spoken of.

Death of Dr. Clugston of Ballyclare.

I regret to have to announce the death of Dr. Clugston, which took place at his residence, Ballyclare, county Antrim, on January 15th, at the age of sixty-eight years, after a very short illness. Dr. Clugston studied in Edinburgh, where he graduated M.D. in 1853; he was also L.R.C.S. Edin. He was much respected in his district, where he had resided for more than forty years, and enjoyed an extensive practice.

Visit of the Lord-Lieutenant to Queen's College, Belfast.

His Excellency the Lord-Lieutenant (Earl Cadogan), who has been staying in the North of Ireland, paid a state visit to Queen's College, Belfast, on January 18th, and received a most enthusiastic reception. On arriving at the College he was received by the President and professors, who conducted him to the examination hall (which was crowded with students and invited guests). Here he received two addresses, one from the President and council of the College, and the other from the students. In the former the interesting fact was brought out that the College has on its books the names of 5563 students who have received their education within its walls. His Excellency made a most courteous reply to both, and then proceeded to the site of the new Students' Union buildings, where he laid the foundation stone and was presented with a handsome trowel and mallet. This new building will occupy a site in the College grounds at the junction of University-square and Botanic-avenue. In the basement there will be apartments for caretaker, kitchen, offices, and heating chamber. There will be a two-table billiard-room (40 ft. by 30 ft.), and adjoining lavatories, baths, &c. On the principal floor will be the "McMordie" Hall (40 ft. by 30 ft.), with accommodation for 400 persons on floor and gallery. It is to be used as a reading-room and debating hall. There will be a refreshment-room (30 ft. by 24 ft.), and it is served by lifts from the kitchen, over which it is placed. The upper floor will contain a smoking-room and a chess-room, and there is also a committee-room. The building will be of brickwork, and sandstone for groins and window joints, &c. The architectural style chosen is a somewhat free treatment of the Tudor Gothic, in harmony with the existing College building.

Irish University Education.

Renewed interest has been aroused in this question owing to remarks made by his Excellency the Lord-Lieutenant of Ireland during his visit to Belfast last week. At the Lord Mayor's luncheon he said that the question of education is one which the Government were bound to consider, and they would have to deal with it in its various aspects of primary education, university education, and technical education. Again, at his visit to Queen's College, Belfast, in reply to a sentence in the address presented to him hoping that in any arrangements which the Government may find desirable to make in university education in Ireland the interests of the College would be looked after, he said the College merits the highest eulogium which can be pronounced upon it, and he had no doubt that, in the event of any new legislative arrangements being made with regard to university education in Ireland, the interests of this great College would be safeguarded. These utterances of Earl Cadogan may be interpreted variously, but in Belfast a good many think they indicate very probably a Catholic university being founded in Dublin and a northern university in Belfast, with the consequent extinction of the present Royal University of Ireland. This would be, considering everything, the best settlement of the question.

Jan. 21st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Protective Measures at the Paris Faculty.

I HAVE already informed your readers of the new regulation Acts excluding foreigners unprovided with the French degree of *Bachelier* from the Paris Faculty of Medicine and of the relegation of these aspirants to provincial Faculties. The motive alleged for this extreme measure is the overcrowding of the dissecting-rooms, laboratories, and wards. The real motive would appear to be jealousy of foreign medical men, who after graduation settle in France and so deprive indigenous practitioners of practice that would, they imagine, otherwise be theirs. That this latter is the real reason is apparent from articles written in this sense by writers in various medical journals. I have before me such an article published in the *Presse Médicale* of the 18th inst. Here the writer advocates in unmistakable terms the absolute exclusion of foreign graduates of a French Faculty unless they have passed subsequently to their graduation an examination equivalent to the German *Staats-examen* and serve three years in the French army. For this writer the choice is plain—naturalisation or exclusion from practice. And this is by no means an isolated view of the case; the same solution of the problem has been proposed by other medical journalists. This is protection with a vengeance. But do these reformers (!) really imagine that the average travelling Briton, for example, not to mention the invalid, would deliberately pay periodical visits to French health resorts were he aware that, in case of necessity, he had to have recourse to the services of a French medical man whose knowledge of British modes of living, nursing, &c., must needs, in such an untravelled community, be quite conjectural? The average French practitioner still regards tea more as a medicine than as an ordinary beverage, and his notions regarding that very British product, whisky, are the most hazy. For instance, in a case of peripheral neuritis of alcoholic origin occurring in an English lady I had occasion to consult a Paris hospital physician who is an acknowledged authority on alcoholism. He immediately suggested to the patient that she had been in the habit of consuming vermout, amer Picon, or absinthe, and when I informed him that the poison was whisky he asked what that beverage was made of. It is useless to expect the Englishman to forego his nationality, and I am confident that were such an illiberal regulation suggested by these writers adopted French health stations would suffer from such a degree of inanition that the law would soon have to be revoked. It is only right to say that the writer of the article alluded to is strongly in favour of opening the doors of the Paris Faculty to all comers on the condition that the degree granted be purely honorary. He also makes some sensible suggestions as to reforms in the teaching, which he would like to see assimilated to that provided at Vienna, where, unlike Paris, the staff earns a large income derived from students' fees. The cumbrous system of *concours*, with its attendant favouritism and loss of valuable years and energy, should be abolished;

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the unrivalled material for teaching existing in Paris would then be properly utilised, and this Faculty would once more take its place, as in the time of Velpeau, Trousseau, and Malgaigne, in the front rank of medical schools. Routine is the curse of the Faculty. What can be thought of such an arrangement as the following? The late Professor Ball (Professor of Mental Medicine) had, besides his wards at the Clinique of the Asile Sainte-Anne, others for general cases at Laennec, where once a week he used to examine his female patients with the speculum and apply dressings to the os uteri! A distinguished dermatologist, now at St. Louis, wasted years of his life as a neurologist and general physician simply because he had to await his turn before he could pursue his natural bent.

The Provisioning of the French Army.

The *Médecine Moderne* of the 18th inst. informs us that after Jan. 1st, 1897, the stock of preserved meat for consumption in the French Army can only be replenished with meat preserved in France or the colonies, or in countries under her protection, such meat to be furnished by native cattle, and the preserving to take place under the supervision of the State or in a State establishment.

The Double Uterus in Pregnancy.

Dr. Eustache relates the case in the *Journal des Sciences Médicales de Lille*, No. 40, of a woman pregnant for the second time and affected with leucorrhœa since her first confinement. An examination with the speculum revealed a double os, one closed and the other dilated, a flow of muco-pus escaping from the latter. The abdomen was very prominent on the left side, and double uterus with pregnancy of the left segment was diagnosed. This diagnosis was verified after the labour. Three days after labour pain experienced in the right half of the abdomen resulted in the expulsion of a triangular membrane 4 centimetres in diameter, this being evidently the caduca formed in the right uterine cavity. Three successive pregnancies have since occurred, alternately in the right and left segments. Each accouchement was followed on the third or fourth day by the expulsion of membranes from the non-gestating cavity.

Successful Treatment of Cirsoid Aneurysm by the Sclerogenic Method.

Professor Lannelongue related at the Académie des Sciences on Jan. 6th a striking example of the useful application of his sclerogenic method of treatment. The patient was a woman aged twenty-eight years, who was affected with a congenital tumour which occupied the right submaxillary region, crossed the median line in front, and invaded the left side, involving also the right cheek, following in its development the right jaw, in front of and below which bone it formed a prominence of a horse-shoe shape. The floor of the mouth on the right side and the right half of the tongue were also invaded by the growth, the nature of which corresponded with that peculiar to cirsoid aneurysm. Sclerogenesis was had recourse to, three or four minims of a 10 per cent. solution of chloride of zinc being injected into the immediately adjacent tissues. Four *séances* of such injections in the surrounding parts and in the tumour itself induced no further complication than two sphaceli in the neck. The treatment, begun at the end of May, 1892, lasted until the end of July of the same year, the woman leaving Paris in August with the growth transformed in nearly its entirety into a dense mass, and the general condition being much improved, feeding being easy. Professor Lannelongue has seen the patient twice subsequently to the treatment, and he remarked that nearly the whole of the growth had been undergoing a slow atrophic sclerotic process. He is of opinion that the cure is permanent.

Jan. 22nd.

ROME.

(FROM OUR OWN CORRESPONDENT.)

"A Homicide every Two Hours."

ON Thursday last, in the Aula Magna of the Collegio Romano, before a brilliant audience graced by the presence of Her Majesty Queen Margherite, the distinguished criminologist, Baron Garofalo, delivered a lecture on "Criminalità in Italia in Rapporto all' Educazione del Popolo." His statistics were certainly startling. In Italy the annual loss of life by homicide (usually by lethal weapons) numbers about 4000 souls. Compared with France, for instance, she has 10 homicides a year for France's one; and 35 for Denmark's one. The Latin populations, indeed, in both hemispheres have a bad pre-eminence over the Teutonic in crimes of violence, if not in crime generally, and of these Latin populations the Italian is the worst. "La statistica prova che ogni due ore in Italia si spegne una vita umana per ferro omicida" (statistics prove that every two hours in Italy a human life is extinguished by the assassin's knife), and Baron Garofalo proceeded to give the reasons why. In the first place, vendetta, which in Greece was heroism and in mediæval Europe a laudable custom, has lingered longer in Italy than in any other country; duelling, also, is more frequent in Italy than elsewhere. What do these two facts imply? A profound, apparently ineradicable distrust of the law-courts to vouchsafe redress and the consequent "taking the law into one's own hand." The reform of these in the direction of even-handed justice promptly and summarily carried out, with the minimising of the plea of "attenuating circumstances" and the abolition of "verdicts of the heart," is an obvious innovation, to say nothing of a return to capital punishment. In the next place education has to be thoroughly recast in Italy, if not exclusively on the lines advocated by Lombroso and his school, at least with reference to the physical organisation of the child and the purification of his moral environment. Thirdly, the ennobling of the sentiments as part of the educational programme is certainly a desideratum in Italian schools, and this, in Baron Garofalo's view, is to be compassed not so much by moral as by religious inculcation. To the religious instruction given in Great Britain and the United States of America he attributes the fact that these countries have in forty years diminished by one-half the annual proportion of their delinquents and mendicants, while in Italy the want of similar instruction has resulted in the positive increase of delinquency and mendicancy since 1862. When to these considerations we add the increased hardness of living in the young kingdom, the strain put upon the moral resisting power by a crushing poverty, the squalid dwellings, the defective alimentation, by which the brain is starved, when it is not actually poisoned, by the stimulants in which relief from misery is sought, and the depreciation of life as it exists under such conditions, we arrive at an *ensemble* of causes which quite accounts for Baron Garofalo's sad statistics and strengthens his plea for educational reform in its widest sense, physical, moral, and religious. His lecture, I need scarcely add, was loudly applauded and earned him the cordial congratulations of Queen Margherite.

Infected Passenger Ships: a Warning.

The haste with which the War Office had to send troops to the front after the reverse at Amba Alagi found the transport service quite unprepared, and so passenger steamers had to be utilised for the purpose. One of these, which usually plies between Naples and Palermo, the fine commodious steamer *Marco Minghetti*, after disembarking its contingent of troops at Massowah, returned with patients on board suffering from typhoid fever. *En route* a quantity of bedding had to be thrown into the sea under medical orders, and the vessel is now resuming its old line between the Neapolitan and Palermitan ports. Italian steamboat service has not the highest reputation for tidiness or even common cleanliness, and the companies whose vessels have been engaged for transport duty between Italy and Abyssinia would do well to relieve the travelling public of a not unreasonable misgiving by issuing medically signed certificates of the seaworthiness of their floating stock. Unless this is done they must not be surprised if they number fewer passengers of the English-speaking world, till such time, at least, as sanitation has set its seal on their vessels as free from infective maladies.

Jan. 18th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Photography by the Light of Vacuum Tubes.

THE discovery of Professor Roentgen of Würzburg has not failed to cause a great sensation among the medical profession of Vienna, and at the meeting of the Medical Society on Jan. 17th Professor Exner gave an account of it. On passing an electric current through Crookes' vacuum tube beams of light issuing from the cathode cause a fluorescence on the sides of the tube, and are accompanied by rays which,

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though invisible to our eyes, are able to penetrate wood, paper, and metals. He exhibited the photograph of Siemens' unit enclosed in a wooden case, and one of a hand in which the outline of the bones was distinctly seen. On the photograph of a living hand with an old and already healed gunshot wound it was obvious that the deformity was caused by the oblique union of the fractured parts of a phalanx. Professor Exner supposes these rays to be longitudinal vibrations. Further experiments performed by Professor Puluj of Prague show that they penetrate the plumage of birds, but not their skeleton. On the other hand, Professor Zenger stated that in 1883 he succeeded in producing a photograph of the summit of Mont Blanc from Geneva at night, which, as he believed, was due to the cathode light emanating from the summit. These rays are invisible to our eyes and can only be recognised by their acting on surfaces sensitised for photographic purposes.

The Reform of Medical Study.

The Committee on Medical Study met at the end of 1895, Baron Gautsch, the Minister of Public Instruction, being in the chair. There were present Professor Exner, the reporter on medical affairs in the Ministry for the Home Department; Dr. Kusy, the President of the Sanitary Council; Professor Hofmann, the President of the Lower Austrian Sanitary Commission; Dr. Karajan, Professor Albert (Vienna), Professor Chiari (Prague), Professor Rydigier (Cracow), Professor Rollet (Gratz), Professor Puschmann (Vienna), Professor Poniklo (Lemberg), Dr. Heine, Dr. Brenner, Dr. Ostrcil, Dr. Waldner, Dr. Lazarsky, and Dr. Smoly, the representatives of the Medical Chambers. The committee proposed that the examination in zoology, mineralogy, and botany should be abolished, and that these subjects should be replaced by obligatory lectures on biology. This new departure, which has been unavailingly recommended for many years, will inaugurate an entire change in medical study, for hitherto the student was admitted to the so-called "First Rigorosum" only after having completed a two-years' course and passed the examinations in the above branches. Obviously he could not direct his attention to either anatomy or physiology, and consequently entered the clinics without the necessary preparation. According to a further proposition of the committee, the student should devote a minimum of twenty hours a week to class attendance, the present number amounting to ten hours. As regards the other examinations, only those in forensic medicine, pathological anatomy, and public health should be oral. The most important innovation is the obligatory practical year which follows the obtaining of a diploma. Though it may be true that Austrian students do not receive a sufficient amount of practical training in surgery and medicine, this new scheme does not meet with the approval of the whole profession. As I have already stated in an article in THE LANCET of Sept. 28th, 1895, this deficiency is due to the system of centralisation which prevails in this country. It appears unnecessary to prolong the time of medical study, seeing that the same object may be obtained by other measures. Vienna has no lack of hospitals, but only a few are used for teaching purposes, and the students are obliged to attend exclusively the clinics of the general hospitals. An effective practical training would be easily obtained if the extraordinary professors and the chief physicians were empowered to deliver lectures forming part of the statutory curriculum. It is by no means certain that the proposals above mentioned will be adopted in the new regulations.

Subphrenic Abscess.

At a recent meeting of the Medical Club Dr. Schlesinger read a paper on Subphrenic Abscess, a condition which was first recognised by Barlow in 1845, and was eventually described by Leyden as pyopneumothorax. Dr. Schlesinger distinguishes between abscesses which are due to the thoracic organs (the lungs, pleuræ, heart, and pericardium) and those which have their starting-point in the abdominal organs (the liver, stomach, pancreas, kidneys, and retro-peritoneal lymphatic glands). The abscess may also arise from remote organs, such as the vermiform process or the female genitals, and may also be caused by perforating and subcutaneous tumours. According to the position there are different symptoms. Extra-peritoneal abscesses of the vermiform process or of the female genitals perforate the urinary bladder and extend to the crura of the diaphragm, whereas intra-peritoneal abscesses originating below the diaphragm pass through the lymph passage to the pleura. The liver and spleen are then displaced downwards and the heart upwards. The formation of gas is an important symptom in connexion with these abscesses. In order to localise the abscess a puncture has to be made in two intercostal spaces; if the pus is above the diaphragm the rapidity of the outflow is diminished during inspiration, but if it is below the rapidity is increased.

Suicide in Vienna.

During 1894 there were 389 suicides and in 1895 there were 404, including those of 314 males and 90 females at ages varying from twelve to eighty-seven years. Their prevalence according to the season of the year was as follows: in January 24, in February 24, in March 33, in April 30, in May 35, in June 40, in July 46, in August 28, in September 28, in October 30, in November 42, and in December 44. Of the various modes of accomplishing their purpose 149 persons resorted to hanging, 92 to pistol shots, 58 to drowning, 45 to poison, 55 to cutting instruments, and 5 to burns. From 1889 to 1893 the number of suicides amounted to 1254, equivalent to a rate of 3·2 per 10,000 of the population, the corresponding figures in some other Continental towns being—in Brussels 3·29, in Munich 1·98, in Paris 3·6, in Berlin 2·96, and in Breslau 3·91 per 10,000 of the population.

Cholera in Galicia.

During last week four cases with one death have been reported from the districts of Husiatyn and Trembowla, making a total of 438 cases with 286 deaths since the commencement of the outbreak.

Jan. 19th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Proposed Electoral Reform at the Melbourne Hospital.

LAST month the three medical societies in Melbourne appointed delegates to a conference to consider the present method of electing medical officers at the Melbourne Hospital and to suggest reforms. The following resolutions were passed by the conference and submitted to the societies for criticism. "1. That the present system of election of honorary medical officers of the Melbourne Hospital is unsatisfactory. 2. Suggested reforms: (*a*) That an age tenure is desirable, and that the retiring age be sixty years. It is submitted for the consideration of the societies whether it is, or is not, desirable to fix a time tenure of twenty-five years for members of the in-patient staff. (*b*) That the candidates for vacancies on the senior staff be selected from the junior staff. 3. That all vacancies in the honorary medical offices be filled by election at the hands of life governors and subscribers who have subscribed a total sum of £3 at any time or times during the four years preceding an election." At the Medical Society of Victoria the proposals of the conference were carried by a narrow majority and after some discussion, several members objecting to a scheme which did not practically alter the present mode of election, but still left it in the hands of the subscribers. The Victorian Branch of the British Medical Association passed the first and second resolutions, but rejected the third. The proposals have not yet been considered by the Melbourne Medical Association. Even supposing that they should be unanimously adopted by the societies it is extremely doubtful whether the powers that be would carry them into effect or if they would really mitigate the evils complained of—evils inherent in the system of election which is untouched by these quasi-reforms.

The Meat and Milk supplies of Melbourne.

Attention has long been drawn to the imperfect supervision exercised by the health authorities in Victoria over the meat and milk supplies. In 1885 a board was appointed to inquire into the prevalence of tuberculosis in cattle, and it found that probably 7 per cent. of all cattle slaughtered for the meat supply of Melbourne were tuberculous to some degree. The board recommended that all the slaughtering should be concentrated in one central abattoir and a full and competent staff of inspectors appointed. Again, in 1889 a Royal Commission was appointed to inquire into the sanitary condition of Melbourne, and especially into the condition of the abattoirs. Its report showed that these were in a very unsatisfactory state, and it recommended the abolition of all but the Melbourne abattoir, which was also to be abolished unless reconstructed in accordance with the requirements laid down by the commission. Nothing, however, has been done, and this year agitation on the

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matter has again been active in the press, and the metropolitan municipalities appointed a committee to report on the state of the metropolitan meat and milk supplies. This committee has recently presented its report, It will be satisfactory for British readers of THE LANCET to learn that the committee found that the arrangements for the export trade in meat are highly satisfactory; only prime animals are selected, and when slaughtered they are carefully inspected and any unsound or bruised meat is rejected. With regard to stock slaughtered for home consumption, the committee found there was practically no supervision except at the city of Melbourne abattoir, and at most of its inspections its experts found cases of disease in both live and dead stock, and it had no doubt that a considerable quantity of diseased meat is passed into human consumption. Many of the slaughtering premises were found to be totally unfit for the business and in a disgraceful condition—to be, in fact, in a worse condition than when the sanitary commission reported in 1889. With regard to the milk-supply, both cattle and premises were unfit for dairy purposes in many instances, and the same want of effective supervision obtains as in the case of the meat-supply. Several of the dairy cattle were found to be badly affected with tuberculosis.

Proposed Registration of Midwives in New South Wales.

A Bill was lately introduced in the Legislative Assembly of New South Wales to "promote the better training of women as midwifery nurses and for their registration as such." Any woman who at the passing of the Act has been in actual practice in New South Wales as a midwife for not less than one year may be registered if she obtains a certificate of midwifery from some hospital, dispensary, or obstetrical society approved by the Board of Health, or if she produces evidence from two legally qualified medical practitioners registered in New South Wales that she is a person of good character and qualified to act as a midwife. From and after twelve months from the date of the establishment of the midwives' register no woman shall be entitled to recover any charge for services rendered as midwife unless registered. The Board of Health may frame rules regulating the method and subjects of the qualifying examination.

The Native Mydriatic Plants of Queensland.

The mydriatic properties of Duboisia myoporoides were discovered by the late Dr. Joseph Bancroft of Brisbane in 1877, and by him the drug was introduced into medical use. Dr. Joseph Lauterer of Brisbane has been recently investigating the active principles of this and other mydriatic plants. He finds that the Duboisia myoporoides contains hyoscyamine in the old leaves and twigs, and scopolamine in the fresh young leaves. At the time when the flowers start to bud the leaves are richest in alkaloids, containing 65 per cent. of water and 0·30 per cent. of alkaloids. In the winter time a much smaller quantity, as low as 0·03 per cent., is present. Dry leaves contain 0·97 per cent. of alkaloids, being much stronger than belladonna leaves. Duboisia leichardtii contains mostly amorphous scopolomine and is richer in alkaloids. Brugmansia arborea mill and brugmansia knightii, natives of South America acclimatised in Queensland, contain less alkaloids in their leaves than the Duboisia, consisting of two-thirds hyoscyamine, the rest atropine. As an average one part of alkaloids is equal to 650 of radix hyoscyami, 600 of semina daturæ, 550 of radix daturæ and folia hyoscyami, 500 folia daturæ, 300 folia brugmansiæ, 150 folia belladonnæ, 130 folia Duboisiæ.

Anæmia Due to Ankylostomum Duodenale.

In the November number of the *Australasian Medical Gazette* Dr. C. H. Lawes records two cases of anæmia caused by the presence of the ankylostomum duodenale. Both patients presented intense anæmia, with œdema of the feet and eyelids, enlargement of the liver, cardiac murmurs, and no albuminuria. The ova of the ankylostoma were found in the fæces. One patient died, and post mortem the duodenum was found to be very congested and contained a great number of the parasites adherent to the mucous membrane, a few were found in the jejunum, and the lowest eight feet and a half from the pylorus. The second patient was being treated with thymol with, apparently, some improvement.

Dec. 20th, 1895.

Obituary.

BERTRAM HUNT, M.B. OXON., M.R.C.S. ENG.

AFTER a general education at Harrow and University College, Oxford, where he occupied a prominent and representative position, Bertram Hunt entered on the study of medicine at St. Bartholomew's Hospital, and qualified as M.R.C.S. Eng. and M.B. Oxon. in 1884. For a time he settled down in Rosary-gardens, but soon removed to Oxford and devoted himself to general practice. Original research, however, attracted him more strongly than the practical details of his profession, and being fairly well off pecuniarily he in 1892 went abroad and studied pharmacology under Ribbert at Zürich, and later bacteriology at Munich under Buchner and Pappeiner. The outcome of this work was to some extent published in a paper on the Action of Methylene Blue on Löffler's Bacillus with Clinical Suggestions.[1] In the autumn of 1894 he returned to London and was appointed to supervise the manufacture of antitoxin in connexion with the Institute of Preventive Medicine. While holding this office Dr. Hunt opened in a very able address the discussion on the antitoxic treatment at the Pathological Society in March, 1895. His official work was carried out with untiring energy and zeal, but the strain and responsibility proved too much for his health, and eventually necessitated his retirement. Of strikingly handsome appearance and charming manners, he was withal one of the most retiring of men, and had but little of that power of self-assertion which is such an important factor in achieving worldly success. He could hardly have made an enemy, and though somewhat reticent had many friends, to whom the news of his sudden death, on Dec. 27th, came as a terrible shock. He was thirty-nine years of age, and leaves a widow and three children.

JOHN BURGES WELCH, M.B. LOND., M.R.C.S. ENG., L.S.A.

THE death of Dr. Welch at the age of fifty-two has caused a widespread feeling of regret in the locality in which he practised for a number of years. Dr. Welch was born at Taunton and received his education at the Grammar School of that town. He afterwards entered at King's College, where he obtained several distinctions and became house surgeon and assistant physician accoucheur. Subsequently he obtained the post of resident physician to the General Hospital, Birmingham, where his accurate clinical knowledge and genial manners gained him many friends. In 1871 he entered into private practice at Handsworth, one of the suburbs of the town. Here he was appointed by the local board as medical officer of health and discharged the duties with much carefulness and discretion up to the time of his death. He also for many years was acting physician to the Children's Hospital, Birmingham, on his retirement being appointed on the consulting staff of that institution. Dr. Welch was a man of wide knowledge and varied culture. As a practitioner his public work was faithfully performed, and his early death leaves a gap in Birmingham professional circles that will not be readily filled.

[1] THE LANCET, Sept. 29th and Oct. 6th, 1894.

THE Barbados Branch of the British Medical Association have unanimously voted to Mr. R. B. Anderson the sum of £10 "towards his expenses, whether personal or legal, in his present endeavour to obtain justice."

PRESENTATIONS TO MEDICAL MEN.—Mr. M. H. C. Palmer, M.R.C.S., L.R.C.P. Lond., L.S.A., was the recipient on Jan. 14th of a cheque for a substantial amount raised by the residents and cottagers of the parish of Donnington, Newbury, as a testimonial for services rendered in the village during a recent outbreak of typhoid fever.—Dr. W. Owen Evans of Buckley, near Chester, has been the recipient of a heavy massive gold ring, with suitable inscription, from the members of the Buckley branch of the St. John's Ambulance Association in recognition of his valuable services to the class. The presentation was made by Mr. Davies-Cooke of Gwysaney, Flintshire.

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Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen have passed the First Examination of the Board, under the five years regulations, in the subjects indicated, at the January quarterly meeting of the Examiners :—

Chemistry and Physics :—

Addinsell, John Howard, King's College, London.
Allan, Charles Henry, London Hospital.
Anley, Frederick Eustace, Charing-cross Hospital.
Attwood, Richard Denton, Guy's Hospital.
Auchmutty, Compton Henry, Westminster Hospital.
Bagshawe, Herbert Vale, Guy's Hospital.
Bailey, William Arthur, University College, Liverpool.
Bartlett, Charles Eastty, Guy's Hospital.
Birch, Charles, Mason College, Birmingham.
Blathwayt, Arthur de Visme, University College, London.
Bodey, Thomas Munn, St. Bartholomew's Hospital.
Brandon, Arthur John Spiller, St. Paul's School, West Kensington.
Brind, Alfred Michael, Mason College, Birmingham.
Broomhall, Benjamin Charles, London Hospital.
Bryan, Clement Arthur Douglas, Guy's Hospital.
Bulteel, Cecil Edward, King's College, London.
Carter, Robert Markham, St. George's Hospital.
Chapman, Donald Poyntz, Charing-cross Hospital.
Cocke, Robert Sturgeon, King's College, London.
Cruise, Richard Robert, St. Mary's Hospital.
David, David Morgan, St. Mungo's College, Glasgow.
Dodd, Stanley, Westminster Hospital.
Doubble, Meredith Sedgwick, Charing-cross Hospital.
Downer, Clarence Herbert, King's College, London.
Dudding, John Scarbrough, London Hospital.
Eddowes, William Black, St. Paul's School, West Kensington.
Esser, Samuel Jonathan David, London Hospital.
Facey, Reginald Ambrose, St. Mary's Hospital.
Flewitt, Charles York, Mason College, Birmingham.
Flint, Harold Edward, St. Bartholomew's Hospital.
Fowler, Edwin Samuel George, Yorkshire College, Leeds.
Gaitskell, Charles Edward, Guy's Hospital.
Gómez, Francisco José, King's College, London.
Hawes, Colin Sadler, St. Bartholomew's Hospital.
Hawkes, Alfred Ernest Underwood, University College, Liverpool.
Hemsted, Henry, University College, Bristol.
Hingston, Clayton Alexander Francis, Middlesex Hospital.
Hodgson, Harold West, London Hospital.
Hogan, Roger Joseph, London Hospital.
Jefferiss, Frederick Burroughs, King's College, London.
Jefferiss, Jain Mackinnon, King's College, London.
Jones, Bertrand Seymour, St. Thomas's Hospital.
Jones, Ernest Samuel, University College of South Wales, Cardiff.
Jones, Frederick John Felix, Guy's Hospital.
Keigwin, George John William, London Hospital.
Lakeman, Jasper, London Hospital.
Leclézio, George Joseph Alexis, St. Bartholomew's Hospital.
Lister-Kaye, Alan, Guy's Hospital and Birkbeck Institution.
Mayer, Thomas Frederick Gisborne, London Hospital.
Mitchell, Edward Percival, Guy's Hospital.
Moore, Leonard Augustine, University College, Bristol.
Morgan, John David, St. Mary's Hospital.
Muir, Berthold, Guy's Hospital.
Norton, John Chalmers, University College, Bristol.
Oliver, Arthur Cardell, University College of South Wales, Cardiff.
Palmer, Charles Ambrose, St. Thomas's Hospital.
Parkinson, Harold Raby, Owens College, Manchester.
Parrott, John Norman, St. Mary's Hospital.
Peirce, Thomas James, St. George's Hospital.
Price, Clifford, University College of South Wales, Cardiff.
Prichard, John Llewelyn, University College, Liverpool.
Quinby, Frank Gray, University College, Liverpool.
Rashleigh, Hugh George, Guy's Hospital.
Ridge, Edwyn Manners, London Hospital.
Roche, Ivan Joseph, Charing-cross Hospital.
Rudhall, John Reginald, St. Paul's School, West Kensington.
Rutherford, Thomas Corrie, St. Paul's School, West Kensington.
Sanders, Edward Arthur, King's College, London.
Scott, Henry Martin, Charing-cross Hospital.
Shattock, Charles Robert, St. Paul's School, West Kensington.
Smith, Leonard Satchwell, Mason College, Birmingham.
Stephens, Henry Zouch, St. Thomas's Hospital.
Sykes, Walter, Owens College, Manchester.
Thomas, William Murray, Guy's Hospital.
Thompson, Cecil Charles Brandon, St. Bartholomew's Hospital.
Vawdrey, Percy Llewellyn, St. Bartholomew's Hospital.
Walters, Charles Ferrier, University College, Bristol.
Walton, George Francis, St. George's Hospital.
Waters, James, Middlesex Hospital.
Weston, Herbert Ernest, St. George's Hospital.
Whatley, James Lawson, Guy's Hospital.
White, Charles Vaughan, St. Thomas's Hospital.
White, Cyril Charles Coleby Kirke, St. Bartholomew's Hospital.
Wilshaw, Thomas Ratcliffe, Mason College, Birmingham.
Winterbottom, Rayner, University College, London.
York, Thomas, Westminster Hospital.
Yvanovich, Guilherme Antonio, St. Thomas's Hospital.

Practical Pharmacy :—

Bennett, Charles Harold, St. Mary's Hospital,
Beverley, Kenneth Harold, University College, Bristol.
Burgess, Percy Charles, Middlesex Hospital.
Clarke, Arthur Allan Foster, St. Thomas's Hospital.
Daly, Frederick James Purcell, London Hospital.
Flewitt, Charles York, Mason College, Birmingham.
Hannah, Frank, Edinburgh, Manchester, and Liverpool.
Harris, Herbert George, St. Bartholomew's Hospital.
Hulseberg, Emile Costern, Westminster Hospital.
Jones, Lewis, St. Bartholomew's Hospital.
Kerfoot, Stanley James, London Hospital.
Newport, Alex. Charles, Charing-cross Hospital.
Parker, Christian, London Hospital.
Storrs, William Townsend, St. Bartholomew's Hospital.
Tayler, George Padgett, St. Bartholomew's Hospital.
Winterbotham, Rayner, University College, London.

Elementary Biology :—

Addinsell, John Howard, King's College, London.
Argles, Ernest Edward, St. Mary's Hospital.
Bailey, William Arthur, University College, Liverpool.
Baker, Harry Cecil, St. Mary's Hospital.
Bastian, William, University College, London.
Bateman, Herbert Raymond, St. Thomas's Hospital.
Beale, Joseph Richard, St. Thomas's Hospital.
Bell, Robert John, Charing-cross Hospital.
Bettinson, George, St. Mary's Hospital.
Bishop, Frank Russell, Charing-cross Hospital.
Bonney, Ernest Henry, Charing-cross Hospital.
Brinton, Arthur Green, Mason College, Birmingham.
Candler, John Pycock, Charing-cross Hospital.
Clayton, John Cecil, University College, Bristol.
Coombes, Henry Reginald, Westminster Hospital.
Cross, Gerald Coneybeare, Middlesex Hospital.
Cruise, Richard Robert, St. Mary's Hospital.
Davies, Enoch Howell, University College of South Wales, Cardiff.
Dawson, Edwin Norman de Vere, St. Thomas's Hospital.
Deas, Percival Bruce, St. Mary's Hospital.
De Morgan, Augustus, St. Mary's Hospital.
Denniston, William Edward, St. Thomas's Hospital.
Dixon, Godfrey Brookes, Charing-cross Hospital.
Donaldson, Samuel, St. Mary's Hospital.
Downer, Clarence Herbert, King's College, London.
Elliott, James Warner, St. Mary's Hospital.
Faulkner, Erasmus Oakes, St. Mary's Hospital.
Fisher, Charles, St. Bartholomew's Hospital.
Hannay, Maurice Gilbert, Charing-cross Hospital.
Harris, William Trengweath, St. Thomas's Hospital.
Harrison, Reginald Temple, St. George's Hospital.
Harrison, William Rhodes, St. Mary's Hospital.
Hodgson, Harold West, London Hospital.
Hodgson, Robert Edward, St. Mary's Hospital.
Hasken, William Henry Martin, St. Thomas's Hospital.
Jameson, Archibald Douglas, St. Thomas's Hospital.
Jones, Richard Arthur, Charing-cross Hospital.
Last, Cecil Edward, St. George's Hospital.
Manning, Ernest John, St. Mary's Hospital.
Martin, John Lemon, St. Mary's Hospital.
Morgan, John David, St. Mary's Hospital.
Morrison, James Frederick, London Hospital.
Newling, Harry Tudor, St. Mary's Hospital.
Page, Shirley, Mason College, Birmingham.
Pitts, Arthur Gentry, Charing-cross Hospital.
Pooley, John Milnes, St. Mary's Hospital.
Pretty, Harold Cooper, University College, London.
Price, Clifford, University College of South Wales, Cardiff.
Quinly, Frank Gray, University College, Liverpool.
Ramsay, Palmer Devoy, St. Mary's Hospital.
Sall, Ernest Frederick, St. Mary's Hospital.
Sells, Lionel, St. Thomas's Hospital.
Staines, Tom Fenn, King's College, London.
Stanley, John Brentnall, Mason College, Birmingham.
Stevenson, Francis Daniel, St. George's Hospital.
Thompson, Joseph Bernard, University College, London.
Tytheridge, Ainslie Burton, St. Mary's Hospital.
Vores, Cyril Preston, Westminster Hospital.
Wynne, Graham Shaw Arnold Smith, St. Bartholomew's Hospital.

The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the examiners on Thursday, the 16th :—

Anatomy and Physiology.—Roland Harrison Allport, John Lionel Taylor, and Hugh Leigh Norris, students of St. Thomas's Hospital; Allan George Reid, James Adrian McComb, and Albert Edwin Cardwell, of London Hospital; Frederick Cecil Forster and Frederick Joseph Wilfred Sass, of St. Mary's Hospital; Percy Cornelius Barham, Alexander George Higgins, and James Gerald Fayrer Hasken, of St. Bartholomew's Hospital; Henry Durbridge and Harry Carlile Sturdy, of Guy's Hospital; Donald John Armour, of Toronto University, Canada; Charles Daniel Parfitt, of Trinity College, Toronto, and St. Bartholomew's Hospital; and Augustine Patrick Douglas Cleary, of Bellevue Medical College and the University of Virginia, U.S.A.

Anatomy only.—Lee Danby Buxton Cogan, of Guy's Hospital, and Charles Thomas McClure, of London Hospital.

Eighteen gentlemen were referred in both subjects and two in Physiology only.

The following gentlemen passed the First Examination of the Board in the subjects indicated under the four years Regulations :—

Chemistry, including Chemical Physics :—

Clemens, James Ross, Cambridge University.
Nicol, Burton Alexander, Charing-cross Hospital.
Simms, Clifford Greville, Middlesex Hospital.
Walmisley, Nicholas, St. Bartholomew's Hospital.
Weldon, Walter Ivan, St. George's Hospital.
Widegren, Mathias Wilhelm Everhead, St. Thomas's Hospital.

Materia Medica :—

Allen, Lancelot Lloyd, St. Bartholomew's Hospital.
Andrews, Cecil Edward, London Hospital.
Bartlett, Lionel Jasper, St. George's Hospital.
Blakiston, Frederick Cairns, St. Thomas's Hospital.
Dudgeon, Herbert William, Guy's Hospital.
Ereaut, Harold John, Westminster Hospital.

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Hancock, Edward Dawbney, Guy's Hospital.
Harvey, Frederic, St. Bartholomew's Hospital.
Higgins, Charles Patrick, Guy's Hospital.
Holden, Hugh Caleb, Guy's Hospital.
Humphrys, Arthur Armitage, St. Bartholomew's Hospital.
Hyde, Reginald Henry, University College, London.
Jackson, Hadley Charles, University College, London.
Jackson, Wilfrid Anthony Legh, Mason College, Birmingham.
Kell, Edmund Delacourt, University College, London.
Lloyd, William, London Hospital.
Meacock, Henry Charles, St. Thomas's Hospital.
Nicol, Burton Alexander, Charing-cross Hospital.
Nuttall, Henry Davenport, Edinburgh University.
Pegg, John Henry, St. Thomas's Hospital.
Penrose, Arthur Wellesley, Guy's Hospital.
Rice, Hubert Richard, London Hospital.
Smith, Charles Vincent, University College, London.
Thompson, Francis Barrallier, St. George's Hospital.
Todd, Arthur Rochefort, University College, London.

Elementary Physiology:—

Goode, George Ernest, London Hospital.
Holman, Augustus Frederick, St. George's Hospital.
Hort, Frederick Aylmer, Middlesex Hospital and Cambridge University.
Howlett, John Kitton, Cambridge University.
Jones, Alfred, London Hospital.
Lewis, Lewis Evan, University College of South Wales, Cardiff.
Martin, Louis Charles, Guy's Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates passed in the under-mentioned subjects:

Surgery.—W. Benton, Charing-cross Hospital; W. Thompson, St. Bartholomew's Hospital; E. W. Herrington, St. Mary's Hospital; and H. E. Wise, Middlesex Hospital.
Medicine, Forensic Medicine, and Midwifery.—E. E. Cornaby, Cambridge; J. H. Crawshaw, London and Leeds; W. Hampson, St. Bartholomew's Hospital; M. M. Townsend, King's College Hospital; and H. E. Wise, Middlesex Hospital.
Medicine and Midwifery.—F. C. Collinson, Leeds.
Forensic Medicine and Midwifery.—T. G. King, London Hospital; W. McCall, Charing-cross Hospital; C. H. Maskew, Birmingham; add H. C. Wimble, St. Bartholomew's Hospital.
Midwifery.—F. R. M. Heggs, Birmingham; and G. S. Taylor, Manchester.
Medicine.—E. G. Adams, Royal Free Hospital; H. W. Silver, Charing-cross Hospital; and W. S. Webb, London Hospital.
Forensic Medicine.—M. Orange, Royal Free Hospital.

To Messrs. Benton, Cornaby, Hampson, Silver, Townsend, Webb, Wise, and Miss Adams were granted the diploma of the society entitling them to practice Medicine, Surgery, and Midwifery.

ROYAL MICROSCOPICAL SOCIETY.—On Jan. 15th the annual meeting of this society took place, the president, Mr. A. D. Michael, F.L.S., in the chair. After the annual report and the treasurer's statement of accounts had been read and adopted, the following were elected as officers and council for the ensuing year:—President: Mr. Albert D. Michael, F.L.S. Vice-presidents: Rev. Edmund Carr, M.A., F.R.Met.S.; Mr. Frank Crisp, LL.B., B.A., V.P. and Treas. L.S; Mr. Richard G. Hebb, M.A., M.D., F.R.C.P.; and Mr. Edward Milles Nelson. Treasurer: Mr. William Thomas Suffolk. Secretaries: Professor F. Jeffrey Bell, M.A., and Rev. W. H. Dallinger, LL.D., F.R.S. Members of Council: Mr. Conrad Beck; Mr. Alfred W. Bennett, M.A., B.Sc., F.L.S.; Mr. Robert Braithwaite, M.D., M.R.C.S., F.L.S.; Mr. Thomas Comber, F.L.S.; Mr. Edward Dadswell; Mr. George C. Karop, M.R.C.S.; the Hon. Sir Ford North; Mr. Thomas H. Powell; Mr. Charles F. Rousselet; Professor Charles Stewart, F.L.S.; Mr. John Jewell Vezey; and Mr. Thomas Charters White, M.R.C.S., L.D.S. The President then delivered his annual address. The subject taken was the Anatomy of the Acari. It was pointed out that the ordinary text-book definition of an acarus, as a creature in which abdomen and cephalo-thorax are completely fused, was not correct, but that still the great characteristic of the anatomy is concentration. This was illustrated by the President's recent researches relative to the brain and nerves of the hydrachnidæ (water-mites) and other families. The address then dealt with the alimentary organs fully, and several remarkable modifications of the different organs to meet the wants of various creatures were explained. It was mentioned that the mandibles of three of the great families of acari were chelate, like a lobster's claw, but that in each family a single genus only had saw-like mandibles, and the remarkable life-histories of some of these acari, including that traced by Yensen of Copenhagen in 1895, were explained. Coroneberg's statement that the mid-gut of certain predatory acari ended blindly and did not communicate with an anus, and the entire failure of several other anatomists, including the lecturer, to find any such communication, were then referred to, and it was considered whether the condition of things now fairly well known to exist in many larval insects such as some hymenoptera, diptera, &c., that the mid-gut was entirely detached from the hind-gut, might possibly persist to a later period in some predatory acari which lived only by sucking the juices of their victims.

FOOTBALL CASUALTY.—On Saturday last, in a match at Brighton between the Silver Star and Royal Irish Rifles (II.) teams, a player fractured his left fibula.

PLYMOUTH MEDICAL SOCIETY.—At a clinical meeting held on Jan. 4th, Dr. Hingston, President, being in the chair, the following cases and specimens were shown:—Mr. Aldous: A girl aged eighteen years, with a Nævus at the Right Base of her Tongue. About seven months ago this was incised without benefit. After injecting six drops of a 4 per cent. solution of cocaine Mr. Aldous used the galvano-cautery. Considerable pain ensued for a week, and the tumour, previously the size of a marble, shrank.—Mr. Webber: (1) Encephaloid Cancer of the Liver and Posterior Wall of the Lesser Curvature of the Stomach. The patient, a woman aged sixty years, was seen for inguinal hernia, and the epigastrium was then found to be occupied by a coarsely nodular tumour moving on inspiration. Vomiting occurred only twice throughout the illness. (2) Scirrhous Cancer of the Stomach removed from a man aged fifty-six years, who died exhausted after four months' epigastric pain and sickness. Heaving pulsation and a marked bruit were present, and the question of abdominal aneurysm was discussed but rejected. The stomach was found to be contracted, with a diffuse, hard growth and walls fully half an inch thick.—Dr. Pethybridge: Slides of Streptococcus Pyogenes, Bacillus Tuberculosis *in situ*, Anthrax Colonies, and Pneumonic Fibrin Network.

DIPHTHERIA IN LONDON.—Diphtheria in London declines slowly, if, indeed, it can be held to be really a declining disease. The death-roll from the malady continues to be heavy, and constantly exceeds the decennial average for the individual weeks as they come round. In the four weeks ending 1895 the notified cases in London reached a total of 1136, as compared with 1269 in the preceding four weeks. In the earlier period 10 and in the later period only 7 districts had upwards of 50 notifications each, the total cases in the 10 districts being 734 and in the seven districts only 532. In the earlier period the weekly average of notified cases was 317, but in the later one it has fallen to 284. Then, again, in the earlier four weeks every sanitary area was invaded, but of the 43 there were 4 free from the malady in the last four weeks of the year. In the matter of death the two compared periods are practically alike in so far as mere numbers are concerned, the 268 deaths in the first giving place to 265 in the second period. The mortality per case in the latter period was, however, the heavier. Last year the notified cases arising in the several four-weekly periods are instructive as showing that there have been markedly epidemic times in London. Thus, up to the middle of May the totals were 677, 500, 488, 562, and 638. Then in the twelve weeks to the middle of August they rose to 718, 1047, and 1097. The ensuing four weeks may be considered as affected by the school holidays, and the cases fell to 811; but only to rise again to 1178, 1305, and 1269. In the last period of the year the number once again fell, this time to 1136, the grand total of notifications for the whole year being 11,426. The 66 registered deaths from diphtheria in London in the first week of the present year gave place to 48 in the second week, ended on Jan. 11th—a number in excess by 16 of the corrected decennial average for the second week of the years 1886-95. The vast majority of the deaths again occurred during the first five years of life. In Islington there were 6 deaths, in Marylebone, Battersea, and Greenwich 4 deaths respectively; and in Paddington and St. Luke's sanitary areas 3 deaths each. The admissions to hospital were 96, as against 104, 93, and 98. There remained in hospital on Saturday, Jan. 11th, 658 patients, as compared with 683 on the Saturday preceding. In the Outer Ring there were, in addition, 12 deaths from diphtheria in the week ended Jan. 11th, and of these 4 belonged to West Ham and 5 to Edmonton Union. This northern suburb of London is seemingly passing through a period of prevalence of diphtheria, judging by the death returns for some time past. Both in the case of London proper and of the Outer Ring the figures of last week ended Jan. 18th were such as to show that diphtheria has still a firm hold on the younger members of the community. The 48 deaths of the previous

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week in the County of London gave place to 59, a total which exceeded the corrected decennial average for the third week of the years 1886–95 by 30. In other words, we had a number of deaths more than twice that usual in the week in question. The sanitary areas of Islington, Hackney, Greenwich, and Plumstead had 19 deaths credited to them—namely, 6, 5, 4, and 4 respectively. The ages at death were, in the first year of life, 4, in the next four years, 39, and the remaining 16 deaths occurred in the succeeding fifteen years of life. The admissions to hospital in the week were 99 in number, and the patients remaining under treatment last Saturday 661. In the Outer Ring the registered deaths were 4 in the Edmonton Union, 9 in West Ham, and 1 respectively in Croydon, Wimbledon, Bexley, and Willesden.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARBUCKLE, H. W., M.D. Aberd., L.F.P.S. Glasg., L.R.C.P. Edin., D.P.H. Camb., has been reappointed Medical Officer of Health for Thorne.

ATKINSON, J., M.B., C.M. Edin., has been appointed Medical Officer to Felsted School, Essex.

BLUMBERG, H. D'A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been reappointed Honorary Medical Officer to the Hydropathic Hospital, Southport.

BRIDGER, SYDNEY, L.R.C.P. Lond., M.R.C.S., has been appointed Assistant House Surgeon to the Devonshire Hospital, Buxton.

DEANS, WM., M.B., C.M. Aberd., has been appointed Medical Officer for the Ewood Bridge Sanitary District of the Haslingden Union.

DENNE, FRANCIS V., L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Third Honorary Attending Medical Officer to the Pimlico-road Free Dispensary, vice Andrew G. Fausset, retired.

DODSWORTH, F. C., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health by the Chiswick District Council.

FOULERTON, ALEX. G. R., F.R.C.S. Eng., D.P.H. Camb., has been appointed Demonstrator of Biological Chemistry to the British Institute of Preventive Medicine.

GOULD, JOHN E., M.D. Lond., D.P.H. Camb., L.R.C.P., Lond., M.R.C.S., has been appointed Medical Officer of Health and Physician to the Fever Hospital for the County Borough of Bolton, vice F. E. Adams, resigned.

GREENE, THOMAS A., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Assistant Medical Officer to the Ennis District Lunatic Asylum.

GREENWOOD, T. P., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer of Health by the Ketton and Uffington Rural District Councils.

GROVES, H. C., L.R.C.P., L.R.C.S. Irel., has been appointed Deputy Medical Officer of Health for the Borough of Monmouth.

HARVEY, FRANK, M.R.C.S., has been appointed Medical Officer of Health for Padstowe.

HORNER, W. E. L., M.B. Lond., has been appointed House Physician to the Derbyshire Royal Infirmary, vice H. J. Pechell, resigned.

KELLY, T. GORDON, B.A., M.D. Dubl., has been appointed Examiner to the St. John Ambulance Association.

KENWORTHY, A. B., M.B., C.M. Edin., has been reappointed Honorary Physician to the Hydropathic Hospital, Southport.

KEY, A. COOPER, M.D. St. And., M.R.C.P. Edin., and L.S.A. Lond., has been appointed Honorary Physician to the Royal Society of Musicians of Great Britain.

MILES, ALEXANDER, M.D., F.R.C.S. Edin., has been appointed Surgeon to the Leith Hospital, vice W. A. Finlay, resigned.

NORGATE, ROBERT HENRY, L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer to the Fishponds Workhouse of the Bristol Union.

OLVER, R. S., M.R.C.S., has been appointed House Surgeon to the Derbyshire Royal Infirmary, vice C. H. Taylor.

PRINGLE, G. L. R., M.B., C.M. Edin., has been appointed Medical Officer for the Third Sanitary District of the Bridgwater Union.

RICHARDS, G. P. P., M.B., M.S. Edin., has been reappointed Honorary Medical Officer to the Hydropathic Hospital, Southport.

SAVILL, T. D., M.D. Lond., M.R.C.S., D.P.H. Camb., has been appointed Physician to the Hospital for Nervous Diseases, Welbeck-street, London.

STOPFORD, ROBT., L.R.C.P., L.M. Irel., has been reappointed Honorary Physician to the Hydropathic Hospital, Southport.

THOMAS, J. T., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health by the Camborne District Council.

WILKINSON, JOHN, M.B., C.M. Edin., has been appointed Medical Officer of Health for the Boston Rural Sanitary District, vice W. Clegg, resigned.

WILSON, S. WESLEY, L.R.C.P., L.R.C.S. Irel., has been appointed Registrar to the Branch Medical Council, Ireland, vice R. L. Heard, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BOOTLE BOROUGH HOSPITAL.—Senior House Surgeon. Salary £80 per annum, with board, washing, &c.

CHICHESTER INFIRMARY.—House Surgeon. Salary, £80 per annum, with board, lodging, and washing.

DUNDEE ROYAL INFIRMARY.—Resident Clinical Assistant. Board, lodging, and washing provided.

HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.

MIDDLESEX HOSPITAL MEDICAL SCHOOL, Cleveland-street, W.—Lecturer on Anatomy, and a Lecturer on Physiology.

OLDHAM INFIRMARY.—Junior House Surgeon. Salary £50 per annum, with board and residence.

PARISH OF ST. GILES, CAMBERWELL.—First and Second Assistant Medical Officers for the Infirmary at Havil-street, Camberwell, and the Workhouse at Gordon-road, Peckham. The salary of the former £120 per annum, rising £10 annually to £150, with apartments, board, and washing; the salary of the latter (the appointment for one year only) £60, with apartments, board, and washing. Applications to the Clerk to the Guardians Offices, 29, Peckham-road, S.E.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.—Second Assistant Resident House Surgeon. Salary £50 per annum, with board and and lodging.

ST. MARK'S HOSPITAL, City-road, E.C.—Assistant Surgeon.

ST. THOMAS'S HOSPITAL, Westminster-bridge.—Assistant Ophthalmic Surgeon.

SEAMEN'S HOSPITAL SOCIETY.—Honorary Visiting Surgeon for the Branch Hospital, Royal Victoria and Albert Docks. Applications to the Secretary, Greenwich.

THE METROPOLITAN ASYLUMS BOARD.—Dispenser at the Eastern Fever Hospital, The Grove, Homerton, N.E.—Salary 35s. per week, with dinner daily. Applications to the Medical Superintendent at the Hospital.

WEST LONDON HOSPITAL, Hammersmith-road, W.—Assistant Physician.

UNIVERSITY OF GLASGOW.—Four Examiners for Degrees in Medicine, to examine in Anatomy, Midwifery, Medical Jurisprudence, and Botany respectively. Salary for the Examinership in Anatomy is £240 per annum, and for the others £30 per annum.

Births, Marriages, and Deaths.

BIRTHS.

ALEXANDER.—On Jan. 14th, at Mayhurst, Paignton, Devon, the wife of James Alexander, M.D. Dubl., of a daughter.

JONES.—On Jan. 15th, at Ty-Mawr, Aberdare, the wife of R. I. Trevor Jones, M.R.C.S., L.R.C.P. Lond., of a son.

PARR-DUDLEY.—On Jan. 15th, at The Grove, Cossington, Leicester, the wife of Arthur D. Parr-Dudley, M.R.C.S., L.R.C.P. Lond., Barrister-at-law, of a son.

PRIDIE.—On Jan. 10th, at Bellmont, Chingford, Essex, the wife of J. F. Pridie, M.B. Edin., of a son.

ROGERS-TILLSTONE.—On Jan. 19th, at Ditton Holme, near Maidstone, the wife of J. M. Rogers-Tillstone, M.R.C.S., L.R.C.P. Lond., of a daughter.

SAW.—On Jan. 17th, at Walmer, Lake-street, Perth, West Australia, the wife of A. J. Henton Saw, Esq., M.A., M.B., B.C. Cantab., of a son. (By cable.)

THOMPSON.—On Jan. 19th, at Lynton, Chapter-road, Willesden-park, N.W., the wife of G. W. Thompson, M.B. Cantab., of a daughter.

WHITEHEAD REID.—On Jan. 16th, at Canterbury, the wife of Thomas Whitehead Reid, of a son.

WOOLLETT.—On Jan. 16th, at 35, Telford-avenue, Streatham-hill, London, the wife of C. J. Woollett, M.D. Lond., F.R.C.S. Eng., of a daughter.

WYNNE.—On Jan. 16th, at Clonmel, County Tipperary, the wife of J. Darley Wynne, M.B. Dubl., M.R.C.S., of a son.

MARRIAGES.

FROHWEIN—HEFFERNAN.—On Jan. 18th, at St. Bartholomew's, Southsea, Otto Fraser Frohwein, M.R.C.S. L.R.C.P., Lond., of Burton-on-Trent, to Eliza Mary (Trot), elder daughter of John Harold Heffernan, C.B., R.N., of Southsea.

HEATH—BULL.—On Jan. 16th, at St. Leonard's Church, Streatham, Arthur Douglas Heath, M.D. Lond., of Edgbaston, to Ethel Mary, only daughter of Benjamin Bull.

METTAM—SENIOR.—On Jan. 15th, at St. George's Church, Sheffield, Wilford Mettam, Surgeon, of Darnell, to Gertrude, second daughter of George Senior, Elmfield, Sheffield.

ORR—CARLISLE.—On Jan. 15th, at Bowdon Parish Church, Robert Scott, third son of the late Robert Scott Orr, M.D., of Glasgow, to Catherine, youngest daughter of the late John Carlisle, of High Lawn, Bowdon, Cheshire.

PETTER—ROBSON.—On Jan. 16th, at St. Cuthbert's, Darlington, by the Rev. F. W. Mortimer, Vicar of Darlington, assisted by the Rev. W. D. H. Petter, cousin of the bridegroom, Walter Petter, M.B., C.M., of Stanhope-road, Darlington, to Edith Mary, eldest daughter of James Hutchinson Robson, of Darlington.

REVILL—HOWARD.—On Jan. 16th, at Nocton, by the Rev. H. Footman, Vicar, assisted by the Rev. R. G. Howard, Vicar of Hovingham, cousin of the bride, G. Leslie Revill, of Heighington, son of the late G. R. Revill, of Barnes, to Mary, daughter of Edward Howard, of The Rise, Nocton, Lincoln.

DEATHS.

ADSETTS.—On Jan. 18th, at Osmaston-road, Derby, John Adsetts, M.R.C.S., Surgeon-Major (retired), aged 59 years.

GREGSON.—On Jan. 17th, at Harley-street, Cavendish-square, London, George Gregson, M.R.C.S., for many years Surgeon to the Dental Hospital of London.

PRINCE.—On Jan. 13th, at Bexhill, Frederick Prince, M.R.C.S., formerly of Sawston, Cambs., aged 83 years.

WELCH.—On Jan. 13th, at Elm Villa, Soho-hill, Handsworth, Birmingham, J. B. Welch, M.B. Lond., aged 52 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—SOCIETY OF ARTS.—8 P.M. Dr. J. A. Fleming: Alternate Current Transformers. (Cantor Lecture.)

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Lauder Brunton: On Some of the Difficulties of Diagnosis in Hepatic Disease.—Mr. Knowsley Thornton: Additional Cases of Hepatic Surgery.

TUESDAY.—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—Dr. H. A. Lediard: Ecchymoses from Natural Causes. Mr. George Ogilvie: The Exceptions to Colles' Law.

SOCIETY OF ARTS.—8 P.M. Mr. Richard Davey: Stamboul, Old and New.

WEDNESDAY.—SOCIETY OF ARTS.—8 P.M. Mr. W. J. Dibdin: Standards of Light.

THURSDAY.—OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-st., Cavendish-sq., W.).—8 P.M. Card Specimens:—Mr. Simeon Snell: Alveolar Carcinoma of Upper Eyelid.—Mr. J. R. Lunn: Nystagmus following an Injury to the Forehead.—Mr. C. D. Marshall: (1) Result of Removal of Metallic Chip from the Vitreous by the Electro-magnet; (2) Cholesteria in the Anterior Chamber.—Messrs. Holthouse and Batten: Peculiar Condition of Optic Discs in a case of Choroido-retinitis. 8.30 P.M. Papers:—Dr. Geo. J. Bull: The Camera in relation to Refractive Error.—Messrs. Eales and Sinclair: Uveal Cyst of Iris.—Dr. F. M. Ogilvie: Optic Nerve Atrophy in three brothers.—Mr. Holmes Spicer: Recurrent Paralysis of Third Nerve with Migraine.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

TUESDAY.—ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

WEDNESDAY.—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Gowers.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Green: Therapeutics of Pulmonary Tuberculosis.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Syphilis.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Hunter: Pathological Demonstration.

THURSDAY.—ROYAL INSTITUTION.—3 P.M. Mr. Philip H. Wicksteed: Dante.

FRIDAY.—ROYAL INSTITUTION.—9 P.M. Mr. Sidney Lee: National Biography.

SATURDAY.—ROYAL INSTITUTION.—3 P.M. Prof. C. Hubert H. Parry: Realism and Idealism in Musical Art (with Musical Illustrations).

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Tuberculosis of the Skin.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 23rd, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Jan. 17	30·13	W.	47	45	72	54	40	...	Cloudy
,, 18	30·22	S.W.	48	46	54	50	46	...	Cloudy
,, 19	30·27	S.W.	48	46	55	51	47	...	Cloudy
,, 20	30·45	N.E.	36	35	47	44	35	...	Foggy
,, 21	30·41	N.	38	37	41	41	36	...	Foggy
,, 22	30·23	S.W.	36	35	60	46	35	...	Hazy
,, 23	30·32	E.	36	35	44	40	35	...	Foggy

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*.; by post, 2*s*. 3*d*.

To be obtained on application to the Manager, accompanied by remittance.

WILLIAM PITT, EARL OF CHATHAM.

To the Editors of THE LANCET.

SIRS,—In your instructive review of the "Dictionary of National Biography," in THE LANCET of last week, you mentioned William Pitt, Earl of Chatham. As anything connected with the "Great Commoner," whose name will live for ever in the history of England, is sure to have some interest for many of your readers, I will ask you to kindly allow me to say that I have two relics of him and of his wife,

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Hester Grenville, sister of Richard, Earl Temple. The relics are two handsomely emblazoned plates, part of a dessert service of china, which no doubt had been frequently used by the Earl. The centre of each plate is filled with the conjoint shields of the Earl and Lady Hester, who was a baroness in her own right having been created Baroness Chatham in 1761 five years before her husband's elevation to the peerage. On the border of a plate at the top is the Earl's crest—a heron or stork grasping one of the flukes of a cabled anchor—and on the bottom the letter C. On the right side of each plate there is the coronet of Lady Hester, with the letters H. C. below it; and on the left border is the coronet of the Earl, with the letter C. below it. The borders of the plates are freely interspersed with sprays of flowers, and where possible rich gilding is introduced. The supporters of the shields are a stag rampant and a lion rampant gardant, and the motto is, "Benigno Numine"—By God's Blessing. I have another handsome plate with the coat-of-arms of Sir William Pynsent of Burton Pynsent painted on it, which I procured at the same time as the Chatham plates. The Pynsent plate being with the Chatham plates was rather a singular coincidence, when it is remembered that Sir William Pynsent held Lord Chatham in such high estimation that he bequeathed to the Earl his large property of Burton Pynsent in Somerset, although he had never seen him.

I am, Sirs, yours truly,

Lincoln, Jan. 20th, 1896. WILLIAM O'NEILL, M.D., &c.

THE PATHOLOGY OF THE NEW WOMAN.

THE following story is genuine and shows, we think, not only how quickly new terms spread among all classes, but also the decline of a silly craze. For, having sunk to a Clerkenwell slum, the epicene person in question must be on the point of disappearing.

Scene: The out-patient room of a metropolitan hospital. Enter a patient who has been treated for three months or so for myxœdema with thyroid extract.

To her the Physician: "Well, Mrs. ——, I should hardly know you again."

The Patient: "Lor', yes, doctor, down our court they calls me the New Woman."

Fanatic.—We have never heard of the practice. It is so utterly revolting that we hesitate to believe that it has ever been employed; yet the records of the doings of certain Oriental potentates show clearly that no bounds can be set to human cruelty.

Mr. Jno. Packham.—The article was published in THE LANCET of April 21st, 1894, p. 1004.

MEDICAL CARDS.

To the Editors of THE LANCET.

SIRS,—Permit me to call your attention to the enclosed copy of a medical card emanating from a physician. Such side- and bye-ways of practice—and, too, by a University man—are most reprehensible, and deserve the censure of all whose aim is to lead and control public medical opinion. "No man"—as is observed in a leading article in THE LANCET of to-day, quoting from Mr. Dickinson's practical address on Professional Unionism—"is altogether insensitive to the opinion of his followers, and the better his position the more sensitive he is"—or, I would add, ought to be. Such advertisement does, I think, more harm, and lowers the ethics of the profession much more, than the puff direct in the weekly local of the provincial paper, and to a certain section of the profession is more hurtful and is more inexcusable than the medical aid associations, &c., &c.

I am glad to hear from the general practitioner who directed my attention to the card (and who is practising in the neighbourhood of Cavendish-square) that the London and Manchester Assurance Societies have bowed to medical opinion as expressed in THE LANCET and other medical journals and have ceased to circulate handbills with the names of their medical officers. "But," he added, "such cards as this from '——street,' do infinitely more harm, as, by their plainly intimating that 'lower charges will be made' according to circumstances, they directly encroach on the practice of the general practitioner by implying that for small fees the advice of a skilled and learned physician is obtainable. The insertion of this letter would much oblige,

Your obedient servant,

Jan. 18th, 1896. FREDERICK H. ALDERSON, M.D.

[*Copy of Card.*]

"——street,
"Cavendish-square, W.

"First consultation by visit or by letter, with microscopic examination of blood and all excreta, £2 2s.

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"Special (and lower) charges will be made in cases of chronic illness requiring constant and prolonged advice.

"Visiting patients at their residences in London and special journeys outside of London are a matter of special terms."

AN INCIDENT IN THE LIFE OF A PROFESSOR.

WHEN M. Jules Bergeron was pronouncing his eulogy of Prof. Gubler before the Académie de Médecine he narrated an interesting episode in the life of the late Beaujon physician. Gubler as a student was exceedingly poor, and it was only by dint of submission to the greatest privation that he contrived to complete his curriculum. His masters were aware of his poverty, and in order to help him one of them recommended him as attendant to a youth of ancient lineage who was the victim of incipient melancholia. Travel having been recommended with a view to the patient's rehabilitation the pair started for Switzerland, where for a time they enjoyed themselves very much and also became great friends. From Switzerland they crossed the Alps into Italy and halted at Milan, the journey so far having been as prosperous as possible. One evening as patient and physician were about to retire for the night the former was suddenly seized with a paroxysm of furious madness. Levelling a pistol, he discharged it point blank at the unfortunate Gubler, who at once fell fainting to the floor, and then grasping a knife the patient proceeded to hack the insensible physician's head in the most savage manner. Alarmed by the noise, the hotel servants then appeared on the scene, and the lunatic was disarmed. Gubler was immediately carried to the hospital, where, almost by a miracle, he eventually recovered from his wounds. The revolver bullet, which lodged in his thorax, was, however, never extracted and to the day of his death the cicatrices on his head were plainly visible, although he wore his hair unusually long in order to conceal them.

Mr. F. J. Duggan.—Our correspondent has not, we think, read our original report, but only abbreviated notices of it. By the report he would have seen that we not only pointed out defects but suggested practical remedies for them. There is nothing to stop Mr. Duggan, or the corporate body of lampmakers which he suggests should be formed from testing various lamps with the view of finding out defects of construction. That is what we did. The results of such inquiry would be a full confirmation of our remarks on these points.

X. Y. Z. is informed that the story is on the face of it an absolute invention. The thing has never occurred, and never can occur.

SCHOOL BOARDS AND FEES FOR MEDICAL ATTENDANCE.

To the Editors of THE LANCET.

SIRS,—Would you kindly inform me through the medium of your valuable journal whether I am justified in claiming a fee from a school board, having been sent for by officials of that body to see a boy who was injured whilst at play in school.—I am, Sirs, yours truly,

Jan. 16th, 1896. MEDICUS.

*** We have been asked this question before. The medical man *must* be paid by someone, and at first sight it would seem that the persons who sent for him should be responsible for the fee. But, in absence as yet of any legal decision to that effect, we cannot take the responsibility of advising our correspondent to attempt to enforce a claim against the school board.—ED. L.

Justitia.—We are to a certain extent of our correspondent's way of thinking. The General Medical Council have rightly defined the use that may be made of the unqualified assistant.

Nemo is advised to consult his family medical man as to the place where he could obtain more special assistance, if such be necessary.

J. P. D.—Our report is the only complete one that has ever been published.

During the week marked copies of the following newspapers have been received:—*Sussex Daily News, Leicester Daily Post, Birmingham Gazette, Halifax Guardian, West London Observer, Grimsby News, Glasgow Herald, Sheffield Independent, North Star, Newcastle Chronicle, Liverpool Courier, Truth, Levant Herald, Umpire, Boston Independent, Bradford Observer, Brighouse Echo, Eastern Evening News, Manchester Courier, South Wales Daily News, Nottingham Guardian, Brighton Gazette, Times of India, Pioneer Mail, City Press, Scotsman, Builder, Sanitary Record, Architect, Liverpool Daily Post, Leeds Mercury, Beverley Recorder, Yorkshire Post, Citizen, Batley News, Bristol Mercury, Berwick Journal, Goole Times, Somerset County Gazette, Mining Journal, Shrewsbury Chronicle, Local Government Chronicle, West Middlesex Standard, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Huddersfield Examiner, Reading Mercury, Le Courrier de la Presse, Dewsbury News, Indian Mirror, Til-Bits, Christian World, Local Government Journal, Surrey Advertiser, General Advertiser, Gloucestershire Chronicle, Glasgow Herald, Yorkshire Evening Post, Scottish Border Record, Christian News (Glasgow), Grantham Journal, Leamington Spa Courier, Bath Pictorial, Essex Telegraph, Lancashire Express, Suffolk Times, Kent Messenger, Banffshire Advertiser, Wellingboro News, South-Eastern Gazette, &c., &c.*

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Harveian Lectures

ON THE

HEART IN ITS RELATION TO PREGNANCY, PARTURITION, AND THE PUERPERAL STATE.

Delivered before the Harveian Society on Dec. 5th, 12th, and 19th, 1895,

BY MONTAGU HANDFIELD-JONES, M.D. LOND.,

OBSTETRIC PHYSICIAN TO ST. MARY'S HOSPITAL, AND LECTURER ON MIDWIFERY AND DISEASES OF WOMEN TO ST. MARY'S MEDICAL SCHOOL; PHYSICIAN TO THE BRITISH LYING-IN HOSPITAL; EXAMINER IN MIDWIFERY TO THE CONJOINT EXAMINING BOARD FOR ENGLAND.

LECTURE III.[1]

Delivered on Dec. 19th, 1895.

HEART FAILURE AFTER DELIVERY.

MR. PRESIDENT AND GENTLEMEN,—All writers on the subject of heart disease in connexion with the gravid state seem to be unanimous in regarding the condition of the heart *after parturition* as more critical than at any other time, and certainly death from heart failure occurs with the greatest frequency in patients during the lying-in week after labour. Reference has already been made to some of the conditions present after delivery which act with special prejudice on the heart; they may be summed up as follows:—1. The down-bearing pains of the second stage of labour throw an additional pressure upon the vascular system and strain the weakened powers of an already enfeebled or diseased heart (Macdonald). 2. Arterial pressure is suddenly diminished and venous pressure increased. The work for the right heart is increased. These changes of pressure quickly overcome and equalised by a sound heart may act very injuriously upon a weakened organ (Spiegelberg). 3. In many cases there is reason to believe that the muscular tissue of the heart is already weakened at the close of pregnancy by fatty degeneration, and this condition renders the heart still less able to bear any additional strain. Lebert's arguments support this view. 4. During pregnancy the nervous system is in a state of exalted tension; after delivery there is a reactionary depression, and this fall must act injuriously on the nervous mechanism of the heart. Reference has already been made to Fritsch's view—viz., that at the moment of delivery danger is apt to arise from the dilated right heart being left too empty of blood, the large parametric venous plexuses and the other abdominal veins affording an abundance of space to accommodate a large quantity of blood, especially after delivery and when the abdominal pressure is not so great as it ought to be. According to his views this condition of affairs is apt to lead to a sudden gush of blood from the abdomen into the empty right side of the heart and to exert there a paralysing effect upon the organ, explained as he believes by Panum's experiment, which shows that a sudden gush of blood into the empty heart does paralyse that organ. The right heart begins to contract upon the too small quantity of blood contained in it, its action is weak and irregular, too little blood gets to the pulmonary circulation, and the blood is consequently imperfectly aerated. This again leads to imperfect cerebral nutrition, and so a vicious circle is established which ends in death.

On this view we need not lay much stress; indeed, I know of very little evidence that can be brought forward in support of it. The only clinical evidence which seems favourable to it is afforded by the case of a multipara who came under my notice some years ago and who, after a normal labour and within a few minutes after the expression of the placenta, suddenly became faint and lost consciousness; the lips were blanched, the pulse could scarcely be felt at the wrist, and the heart's action was irregular and feeble. Remembering the assertion that owing to the immense decrease of the intra-abdominal pressure after delivery the blood might accumulate to a dangerous amount in the mother's abdominal veins, the medical attendant caught up a hard sofa-cushion, placed it on the abdomen, and then with the help of a binder proceeded to restore the abdominal pressure on the veins. In this case the result of the experiment was most happy; as in a few minutes colour came back to the face, the radial pulse became fuller and stronger, and the patient quickly regained consciousness. Until more conclusive proofs for the correctness of Fritsch's view can be brought forward we must consider his conclusions to be at least "not proven."

Having thus briefly reviewed the influences adverse to the heart after delivery it will be interesting to study some instances of cardiac failure after labour.

CASE 1.—A delicate-looking married woman passed through her first pregnancy without any complication worthy of note. At her confinement she was attended by one of the midwives of the British Lying-in Hospital, and I was informed that with the exception of a little faintness during the latter part of the labour there was nothing abnormal. About twenty-four hours, however, after the conclusion of labour her state began to cause anxiety; she complained of palpitation and breathlessness, wanted to be propped up in the bed in a sitting posture, felt very faint, and had much præcordial pain. When I saw the patient on the evening of the second day after delivery she was sitting up in bed supported by pillows, her face and lips were very markedly pale, beads of cold perspiration were on the forehead, and the breathing was hurried and shallow, the respiration being about 40 per minute. The voice was gasping and feeble. The pulse was 120, very weak and irregular, and the temperature was 100° F. The area of the heart's dulness was markedly increased, and the apex beat, which was feeble and diffuse, was felt with difficulty outside the vertical nipple line, and was lower than normal. On auscultation a well-marked systolic murmur could be heard at the apex. The patient was too feeble to bear much examination, but the lung sounds seemed to be healthy. A history was elicited of an attack of rheumatic fever in childhood and of symptoms which suggested that the cardiac trouble was of long standing. Brandy was given freely in milk, and a mixture of ammonia and ether was prescribed. Next day the condition was practically unchanged. The urine was scanty and contained about one-third albumin; the legs had become œdematous, and sleeplessness was bitterly complained of. Digitalis was added to the ether mixture, and strychnia was ordered. For some days it seemed to be almost impossible that the heart could recover; then, at the end of a week from the time of delivery, the condition of this organ began to improve, the dropsy of the legs cleared up, the albumin disappeared from the urine, and convalescence was established. The systolic murmur remained unchanged and enlargement of the heart was very marked six weeks after labour. In this case, as far as could be determined, the failure affected principally the left side of the heart, and dilatation of the left ventricle was distinctly marked. The after-history of this case is of interest. The patient slowly regained her strength and was able to resume her household duties. About a year later she again became pregnant, but passed through her pregnancy and parturition without any sign of cardiac failure, and indeed without any complication save that of an adherent placenta and rather free post-partum hæmorrhage. I have heard that she is pregnant for the third time and so far is doing well.

CASE 2.[2]—A married woman aged thirty-two years was for about two years previously to her marriage noticed to be breathless on going up steep inclines and on ascending stairs, on which occasions she would place her hand over the region of her heart. There was nothing further observable about her condition to indicate that there was disease of any kind except a slight occasional dry cough, which was always increased by exposure to night air. She menstruated once after marriage. When about two months pregnant the cough and breathlessness increased considerably, and I was accordingly consulted regarding her health. I found her to be suffering from slight bronchitis, and also from mitral disease of the heart (systolic). I ordered a stimulant expectorant, which gave her great relief, and enjoined her to keep to the house. The cough abated considerably, but the breathing became steadily worse. On going out during the month of January (being the second time for a month or two) and walking quietly for about 500 yards, the patient became so breathless that she had almost to

[1] Lectures I. and II. were published in THE LANCET of Jan. 18th and 25th, 1896, respectively.

[2] Quoted by Dr. Angus Macdonald.

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be carried home, and managed with the greatest difficulty to ascend two flights of steps which led from the street to her house. About a month afterwards she was seized with labour pains and gave birth with comparative ease to a living seven months' child. For three days she continued well, her breathing being quite easy. About 10 A.M. on the third day the nurse's attention was attracted to the fact that she was getting much worse by observing great coldness of the patient's extremities. Simultaneously with this she complained of weakness and the breathlessness became much increased; she was at the same time tormented by a severe cough, and her lips became cyanotic, so that she could not lie down, but had to sit upright, in which condition she died at 7 P.M. on the same evening.

CASE 3.[3]—A married woman aged thirty-eight years, who was pregnant for the first time, had suffered for many years from well-marked mitral disease. She was never able to walk without experiencing palpitation and dyspnœa; for three winters she had had asthmatic attacks with increasing emphysema. She remained fairly well until the fifth month of her pregnancy, when her cough increased and she had periodic attacks of hæmoptysis, the blood being bright-red in colour. Her face was dusky and her lips blue, but the pulse, though irregular, remained below 100. Labour commenced on March 23rd, 1893. The sitting posture was necessary throughout owing to the dyspnœa. With full dilatation of the cervix the pulse had risen to 130, and, an anæsthetic having been given, the forceps were applied; delivery was quite easy. A tight binder was applied as the child was extracted. The placenta was expressed, no ergot was given, and there was no post-partum hæmorrhage. The patient's condition was quite satisfactory until the third day except for the distressing cough and inability to lie down. She was then suddenly attacked with syncope without any apparent reason. On reaching her there was no pulse to be felt at the wrist; she was ashy white in colour, with cold, clammy sweat over the face, and gasping for breath; the respiration was 42 per minute. Ether was injected subcutaneously with liquor strychniæ (1/30 gr.) every two hours. These attacks continued, but with lessening severity, for three days. A mixture, composed of half a drachm of tincture of digitalis and twenty minims of liquor strychniæ, was given by the mouth every four hours with the best effect; but, as physiological symptoms of the latter drug occurred after the sixteenth dose, the amount of liquor strychniæ was reduced to five minims. Recovery was slow, but a year after the labour the patient's condition appeared to be about the same as it was previously to her pregnancy.

CASE 4.—A married woman, a multipara, was confined in the St. Mary's Hospital maternity department on May 9th, 1890. It is recorded that the patient had at that time severe double mitral disease, but that in spite of the cardiac disease both mother and child did well. On May 14th, 1894, labour commenced, and the clerk, noticing the deep red of the lips and the flushed face, examined the heart and noted the presence of mitral stenosis (second stage). He returned to the hospital to seek help, and in his absence the child was born. Some flooding occurred, but it was not excessive, and the placenta was easily expressed. Next day the patient was feeling quite comfortable, and seemed to be progressing very well. The pulse and temperature were quite normal and some after-pains were present. On May 16th—that is to say, on the third day—the resident obstetric officer was hurriedly summoned with the news that the patient was dying. When he arrived she was found to be lying on her back with the eyes turned upwards. She could not answer when she was spoken to, she did not put out her tongue when she was told to do so, and the lower jaw was held rigidly so that the mouth could not be opened. The pulse was 96, regular, and the wave was not very easily compressible. The heart was not enlarged; on auscultation there was heard at the apex a long presystolic murmur, with a short, sharp first sound, but no second sound. The pulmonic second sound was not much accentuated. At other areas the sounds were normal. There was no enlargement or pulsation of the veins of the neck. No pulsation of the liver was observed. There was no œdema of the feet. The respiration was 24 per minute; she suffered from some cough, but there was no expectoration. The chest moved freely on both sides. There was no dulness, but much coarse crepitation. No facial paralysis was noticed. All the limbs were flaccid, but one side not more so than the other. On pricking either limb on either side the patient moved it away. The temperature was 98·6° F. On May 16th at 6.30 P.M. facial paralysis on the right side was evident, the furrows of the forehead on that side being obliterated. The temperature was 100° and the pulse was slightly irregular in force, the condition being unchanged otherwise. On May 17th the general condition was unaltered. The nurse unwittingly directed attention to the presence of right hemiplegia by saying that the patient seemed to be in pain all down the left side, for whilst the right side was always still she kept moving the left continuously. This was so; she did not move the right side voluntarily, though she still moved all the limbs on the stimulus of a pinch. The bronchitis had increased, the crepitations in the lungs completely obscuring the heart sounds. She had lost flesh considerably during the previous thirty-six hours, though the nurse had done her best to feed her with liquid food; she had passed everything under her for the same time. She was moved into St. Mary's Hospital the same afternoon. In spite of the free use of strychnia, digitalis, and ammonia the heart gradually failed; she was unable to expectorate and became cyanotic; she gradually sank and died next day without convulsion, but became quite blue. She never showed any sign of being conscious of her surroundings. A post-mortem examination was unfortunately refused by the friends. (I am indebted for notes of this case to my house-physician, Mr. Lane.)

CASE 5.—Mr. Salisbury-Sharpe has kindly supplied me with notes of the following case:—"A married woman had passed successfully through four pregnancies which followed each other in rather rapid succession, being in all respects normal. The last labour took place on Dec. 25th, 1894. She was expecting to be confined again at the end of January, 1896, but sent for me on Nov. 13th last owing to the onset of hæmorrhage. On arriving I found that the os was dilated to the size of a shilling and the placenta presenting. The patient had evidently lost blood freely. The heart on examination was found to be dilated; the pulse was small, soft, and rapid; and the breathing was hurried. With the help of Barnes's bags and version the uterus was successfully emptied without the recurrence of hæmorrhage. After delivery the patient rallied well and, except that the pulse was rapid (110 to 120) and the breathing rather laboured, there was no cause for anxiety. On both the second and third days all was going on well and the temperature was keeping normal; but on the fourth day the pulse-rate rose to 150 and the breathing became more embarrassed. In spite of the administration of digitalis, ether, and ammonia every two hours the patient slowly sank and died at 5 A.M. on the fifth day after delivery."

The above cases are of interest as they illustrate one mode of heart failure after delivery. In all these cases there was an interval after labour in which the heart's action was fairly well maintained, and during which there was fair reason to believe that the period of danger was past, and yet in each case failure of the heart began to make itself manifest during what might reasonably have been considered as the stage of convalescence. The group of cases serves to illustrate the fact that dangerous symptoms may be very slow in declaring themselves after labour, and that safety cannot be assured for some time after the strain of labour is past. I have already quoted Lébert as arguing that pregnancy and parturition are apt to operate very injuriously, not only upon the valves of the heart, but also upon its muscular tissue, and this point seems to be well illustrated by the foregoing cases. Spiegelberg's explanation, that the danger to the heart after delivery arises from variations in the arterial and venous pressures, certainly would not apply here, for in each case abundant time had elapsed after delivery for these pressures to equalise themselves, and it was in several instances the third or fourth day before serious symptoms developed themselves. It is equally clear that failure did not depend on any special valvular lesion, for the form of mischief varied in the several cases, and in one case there was no disease of the valves. The true explanation would seem to be that during labour the heart muscle is considerably strained and the way paved for the dilatation of exhaustion; then, owing to the reactionary enfeeblement of the nervous system after parturition and the possible weakening of the cardiac muscle by commencing fatty degeneration, the chances of recuperation are effectually barred. From the point of view of treatment the subject is of immense importance, for clearly with such a possibility

[3] Narrated by Dr. John Phillips: Practitioner, June, 1896.

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before us it would be folly to postpone stimulant treatment until signs of cardiac failure had commenced. In all cases in which there is evidence of the presence of conditions likely to act injuriously on the heart it is our duty from the time of labour onwards to spare the heart every possible muscular exertion or fatigue, and to maintain its powers at the highest possible level by the liberal use of stimulants and cardiac tonics such as strychnia, ammonia, and digitalis. A very important question arises here—viz., as to how far venesection may sometimes be of service in lessening the strain upon a heart. Knowing as we do that the heart is called upon during pregnancy to move a column of blood above the normal, and that in many instances such excess of blood is not carried off by the loss which occurs in a normal third stage of labour, it becomes an important question whether a free blood-letting may not be the best mode of giving relief to an overburdened and failing heart after delivery. Dr. Phillips[4] gives an excellent illustration of this treatment in his third case. It is quoted as follows :—

"CASE 3. *Mitral stenosis and regurgitation.*—Mrs. ———, aged thirty, is pregnant for the second time ; her first labour five years ago was to all appearances normal. She was attacked by acute rheumatism two years afterwards, and since this has had well-marked physical signs of mitral disease. During her present pregnancy she has suffered from cough, hæmoptysis, and swollen legs. She was taken in labour on May 3rd, 1892 ; the child was delivered by forceps ; a sand bag was carefully applied over the abdomen as the child was withdrawn ; the placenta came away naturally. There was no hæmorrhage, and no ergot was administered. She remained fairly well till the end of forty-eight hours, when severe dyspnœa and palpitation set in. Ether, digitalis, and strychnia were given, but without avail. Three leeches were then applied over the cardiac region with almost immediate relief. There was no return of the untoward symptoms, and her convalescence was normal. The physical signs eight months afterwards were unchanged."

I have illustrated, then, one mode in which heart failure may manifest itself after labour ; there are two other methods which call for careful study and notice. In the first of these the suddenness of the collapse is the principal feature. The following cases illustrate this variety.

CASE 1.—(For the notes of this case I am indebted to my house physician, Mr. Thorne.) On March 1st, 1895, I was called by one of the extern clerks to a case of labour occurring in the St. Mary's Hospital Maternity Department. On arriving at the house I found a small stout woman in a somewhat exhausted condition ; her pulse-rate was 140 per minute. The patient had been in labour for twenty-four hours, and for two hours the pains had been strong and frequent, yet there had been no advance in the presenting part during this latter period. The woman had previously passed through sixteen or seventeen quite normal confinements, only four children, however, being now alive. The last confinement had taken place three years before. On examination I found that the membranes were ruptured and that the head was presenting with the occiput lying posteriorly to the left. Having given chloroform, and having failed to secure forward rotation of the head by digital pressure, forceps were applied, and the child was delivered without any great difficulty. The after-birth was found to be adherent at one part and had to be removed by the hand. Chloroform was administered altogether for about twenty minutes, and during this time three or four drachms were used. After removal of the placenta the uterus retracted down fairly well, and all appeared to be going on satisfactorily. About fifteen minutes after the termination of labour, while the patient seemed to be recovering rapidly, she took three or four deep inspirations and became cyanosed, with the tongue protruding ; respiration then ceased. Artificial respiration was tried, and the heart continued to beat feebly for about ten minutes, but without success.

Necropsy.—An inquest was ordered, and a post-mortem examination was made by Dr. Charles Gross some ninety hours after death. His report was to the following effect. The body was found to be that of a well-nourished woman with advanced decomposition of the face ; all the superficial parts were more or less decomposed with the exception of the legs. On the back the skin was peeling. The heart weighed eleven ounces ; its substance was pale and soft, and a microscopical examination showed that the heart muscle had undergone marked fatty degeneration. The cavities of the organ were empty ; there were no valvular lesions. The lungs were small and congested. No thrombosis or embolism was to be found in the pulmonary arteries. The brain, kidneys, and other large organs were congested, but were otherwise normal. The thickness of the wall of the left ventricle varied from five-eighths to seven-eighths of an inch.

CASE 2.—Of this case I have unfortunately very imperfect notes, but the history of the patient is briefly as follows. A married woman was confined on Sept. 3rd, 1888, and had made favourable progress up to the 12th. While the husband was away for a short time on this date she attempted to get up and be about, and was found lying dead in a chair when her husband returned. A post-mortem examination was made, but no cause of death could be discovered.

In both these cases the suddenness of the fatal issue is the principal point, and in each instance a diseased condition of the cardiac muscle was probably the real cause of the heart failure. In the first case there is a high degree of probability that the disturbance of the venous pressure following delivery led to embarrassment of the right ventricle, and thus brought about a fatal ending.

While thus we have briefly reviewed two methods in which failure of cardiac action is shown, we have to recognise that in the majority of cases in which cardiac imcompetency after labour is exhibited there has been evidence of heart weakness during pregnancy, and the strain of labour is the determining factor which finally damages the heart and leads to an arrest of its function either in the latter part of labour or more often within a more or less brief period after parturition has been accomplished. The following cases are examples of this method of failure :—

CASE 1.—Porak narrates the case of a woman aged thirty-eight years who had passed through two severe attacks of rheumatism. In August, 1879, she became pregnant for the second time. By the end of September debility, palpitation, and swelling of the legs had manifested themselves ; throughout pregnancy these symptoms persisted, and by the end of the term she was very exhausted and breathless. Her confinement took place at full term and was finished satisfactorily, but from that date her condition became steadily worse. Strength was markedly lost and attacks of suffocation grew increasingly frequent and severe. The arms and legs became somewhat œdematous. Mitral and aortic insufficiency were found to exist, and death ensued eighteen days after delivery.

CASE 2.—Macdonald narrates a case of a woman who became pregnant for the second time while suffering from mitral stenosis. At the onset of this pregnancy her health was fairly good, but towards the middle of it she became markedly anæmic ; breathlessness, palpitation, and general discomfort set in, and her legs became enormously œdematous. About the end of the seventh month there was present general œdema with cough and orthopnœa. He continues : "I intended about this time to arrange for a consultation, with the view of deciding upon the propriety or otherwise of inducing premature labour, as the patient was now unable either to lie down or move herself in bed, to such a degree were pulmonary œdema and anasarca present. But on May 18th, 1872, when the patient was near the end of the eighth month, she fell in labour. The delivery was easy. I gave chloroform with some hesitation at first, but it was well borne, though the pulse was exceedingly weak and very irregular. She did not improve much after the termination of the labour, the anasarca and the dyspnœic symptoms continued, and she was scarcely able to take any food. Her condition remained much at a standstill, however, till the morning of the sixth day after her delivery, when she suddenly fell back in bed dead. There was no post-mortem examination."

CASE 3.—Berthiot quotes a case which occurred in the practice of Dr. Icard, with the following history. The patient, who was six months advanced in her second pregnancy, consulted Berthiot in June, 1871, on account of swelling of the legs and breathlessness on exertion. Her first pregnancy had been quite normal and she had enjoyed good health until a short time previously. Examination of the heart showed the existence of mitral stenosis. In the early part of August the patient suffered from some slight eclamptic seizures, and eight days later she was delivered of a healthy male child. A few weeks after this all the cardiac troubles had become aggravated, the patient suffering from much breathlessness, constant malaise, and faintings. Œdema of

[4] Loc. cit.

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the legs and ascites soon afterwards developed, and she slowly sank and died.

Hardy and Behier[5] state that pulmonary congestion may end in death; in its active form sudden and acute congestion may produce instantaneous death, and Devergie regards this malady as a frequent cause of sudden death, since of forty cases which had a rapidly fatal ending he found twenty-four in which death seemed to be due to a pulmonary congestion alone or combined with cerebral congestion. Lebert adopts a similar view. It is quite possible that congestion and œdema of the lungs play an important part in bringing about a fatal termination in many cases in which the gravid condition is complicated by the presence of a weak or diseased heart; but as the pulmonary mischief depends mainly on a defective circulation in the lungs, secondary to the failure of the heart's action, it would be more scientific and accurate to attribute the cause of death primarily to the unhealthy state of the heart and not to some secondary lesion brought about by the weakness of the principal organ. Regarding then the three groups of cases already demonstrated, we see that failure of the heart, occurring during the puerperium, may manifest itself in three principal forms or methods. In the first group evidence of heart disease is either absent during pregnancy, or if manifested the symptoms are so slight that attention is hardly directed to them; even during the labour the heart proves fairly equal to its work, and even for some days afterwards shows no signs of failing. Morbid changes are, however, occurring in the muscular tissue, and maybe in the nervous supply of the organ, and after a deceptive lull of one, two, three, or more days the storm declares itself. In the second group of cases "sudden failure" is the principal feature, and it is in this group that Spiegelberg's theory finds perhaps its best exposition. I am inclined, however, to think that the variations in pressure suggested by this writer are really of less importance than a condition of fatty degeneration of the heart muscle dependent on the gravid condition, as already explained. A variation in the venous and arterial pressure may take its place with emotion, straining, or other muscular effort as a final cause, but I take it that the *fons et origo mali* lie in a weakened condition of the heart muscle, which renders it unequal to any sudden call upon its energy. The third group is by far the largest and most important, and it is with this group that we shall always be most concerned. It is clear, of course, that when symptoms of heart failure manifest themselves early in pregnancy it is almost certain that serious complications will arise after the heart has been subjected to the extra strain of delivery. Regarding this point Tarnier says:[6] "In heart disease all great and sudden efforts put the patient in peril, and labour is no exception to the rule. Running upstairs, racing to catch an omnibus or train, and sexual intercourse may all cause fatal syncope. The danger of labour is not special in this sense; it is dangerous in heart disease simply because it involves much effort." Moreover, there is the additional danger to which reference has already been made—viz., that in all probability retrograde changes do take place in the cardiac muscle after the close of pregnancy. If this theory be accepted—and there seems to be considerable argument in favour of it—then it is certain that though the extra strain of pregnancy and labour be past, still the already weakened heart has to deal with a fresh cause of exhaustion, and is quite unfitted to meet any mechanical difficulties of the circulation or any shock due to fear, fright, or sudden excitement.

We may now proceed to sum up the conclusions to which we have been led. They are as follow:—1. Both by clinical evidence and by logical deduction we are justified in accepting the fact of hypertrophy of the left ventricle occurring in normal pregnancy as proven. In delicate and feebly developed subjects it may sometimes be absent, and in these cases signs and symptoms of cardiac insufficiency are likely to occur. 2. A certain amount of dilatation of all the chambers of the heart does normally occur in pregnancy. 3. Failure of the ventricle has a distinct effect upon the course of pregnancy. In the early months it leads to abortion and in the later months to premature delivery. Porak confirms this point, and says that "heart troubles have an evident influence on pregnancy, by provoking metrorrhagias, by determining very often abortions or premature delivery, by producing, maybe, placental lesions, and by acting harmfully on the infant, who sometimes dies before its birth, or is born under conditions not favourable to development and disposing towards premature death." 4. The heart during pregnancy and the puerperium is specially liable to undergo fatty degeneration. This may be due to retrograde changes taking place after delivery, or may depend on the premature setting in of these changes together with an insufficiently oxygenated state of the blood, dependent partly on anæmia and partly on lung disease. 5. The condition of the muscular heart wall is of more importance during pregnancy than the valvular lesion; many women with valvular lesions pass through their early pregnancies without any sign of heart failure, but as the heart muscle becomes deteriorated by the strain of repeated pregnancies they show increasing evidence of cardiac insufficiency. 6. Of all the forms of valvular lesion mitral stenosis of a marked degree is the most disastrous; this is largely due to the extra strain thrown in these cases on the pulmonary circulation and the right heart. The increased arterial tension, the increased volume of blood, and the increased development of the left ventricle all tend to produce dilatation of the left auricle and the right ventricle. The pulmonary circulation is thus kept continually congested, unless pronounced hypertrophy of the right ventricle takes place. At the close of delivery, when more blood collects in the right side of the heart, the risk is increased and the danger reaches its maximum.

Treatment.—The question is often brought before us, Is marriage to be permitted when the woman is the subject of chronic heart disease? Regarding this Macdonald says: "Chronic heart disease ought to be looked upon as a grave contra-indication of marriage, more especially if it assumes the form of anything approaching to severe stenosis of the mitral or to serious aortic incompetence. In such cases we ought, if consulted, to dissuade from marriage." On this point I do not feel inclined to adopt Macdonald's opinion. If we read carefully over the long lists of cases of heart mischief published from time to time we shall notice (as has been already said) that many of the women had borne several children without any complication though undoubted cardiac mischief had existed from the time of their first conception. Provided a valvular lesion is well compensated and the muscular tissue of the heart can be judged to be sound, and provided also that the patient is a young woman in whom processes of repair may reasonably be expected to go on at a healthy rate, there would be no just reason for forbidding her to marry. In every case it would be well, if the patient has not been under medical observation previously, to advise her to remain under medical supervision for the space of six months, or even a year, that an opinion might be formed whether the disease was quiescent and vascular equilibrium well established, or whether, on the other hand, yielding of the ventricular walls and dilatation of the cavities were slowly advancing. I quite agree with Macdonald that we ought not to give our sanction to marriage if, in connexion with chronic heart disease, there are any serious symptoms of cardiac disturbance present, such as attacks of dyspnœa, breathlessness, palpitation on exertion, hæmoptysis, &c.; and this injunction ought to be the more imperative the younger the patient is and the more recent the acute disorder which has given rise to the lesion.

Induction of abortion and premature labour.—We have already seen that abortion and premature labour often occur spontaneously in cases of failing heart; but the question is frequently asked whether it is good treatment to induce delivery in patients suffering from active heart mischief during pregnancy. The question should rather be put in another form — viz., Do cases ever exist in which it is justifiable to bring about abortion or premature delivery? To the first form of question we must certainly answer "No," but to the second we can reply "Yes." It is true that in a certain number of cases delivery by nature's efforts alone has led to an immediate improvement in the heart symptoms, but it is none the less true that when physicians have induced labour during the latter months because of a condition of cardiac insufficiency the result has been generally disastrous. It has been well said that the condition of any patient in whom it is thought a necessary operation is one of extreme gravity, and the mere fact of interrupting the pregnancy will not stay the cardiac degeneration which is going on. Although the patient may survive the labour she will probably succumb during the early days of the puerperium. In practice it would seem that artificially induced labour throws more

[5] Traité de Pathologie Interne.
[6] Journal des Sages-Femmes, Jan. 16th, 1894.

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strain on the heart than when the process is originated by nature. Clearly when the heart has already been exposed to the toil of seven or eight months of utero-gestation and is showing signs of rapid failure it is not prudent to suddenly throw upon it the effort of labour. The cases in which we should resort to the induction of premature labour are those in which it seems desirable at any cost to relieve the diaphragm from the upward pressure of a large abdominal tumour such as the pregnant uterus. With regard to abortion in the early months I think that the case is different. In many recorded instances of serious cardiac complications rendering the latter part of pregnancy, labour, and the puerperium a period of continued danger, and resulting too often in death, it is clear that symptoms of commencing failure such as palpitation, breathlessness on exertion, and malaise had been noted as early as the third or fourth month. In such a case I fail to see the justification for exposing a failing heart to the strain of pregnancy during the remaining months of utero-gestation and would advise immediate abortion. The emptying of the pregnant uterus at the fourth month cannot be compared with the strain of labour in the last two months of utero-gestation. I should be disposed to recommend the same course in a patient who had heart disease and who had passed through three or four confinements safely, for should she become pregnant again clinical experience demonstrates that the risk she encounters is vastly increased. No physician would lightly interfere with the course of pregnancy, but it is folly to allow things to take their course when science has taught us that the course is almost certainly laid on the downhill track. In conducting the labour at full term the point may be considered as established that the second stage should be made as short as possible and that forceps or version are most valuable aids.

Post-partum hæmorrhage.—Regarding the action of free bleeding during the third stage of labour I would earnestly bear testimony to its useful effect. A free loss tends to relieve the right heart from undue engorgement and considerably lessens the risks of sudden stoppage of the heart. Equally useful is the application of leeches over the liver or heart during the puerperium when blueness of the lips and face, with dyspnœa and pulmonary troubles, tell a tale of an over-distended and failing right ventricle.

Drugs.—Of all drugs strychnia and nitrite of amyl have seemed to me to be the most useful. The latter drug, by dilating the arterioles and keeping the blood in the peripheral circulation, gives temporary relief to the failing right ventricle and lessens the work of the overburdened heart. The action of strychnia as a cardiac tonic is too well known to need notice here.

THE NATURE OF ANÆSTHESIA: AN APPENDED NOTE.[1]

BY DUDLEY W. BUXTON, M.D., B.S., M.R.C.P. LOND.,
ANÆSTHETIST AND LECTURER ON ANÆSTHETICS IN UNIVERSITY COLLEGE HOSPITAL.

Introductory.

To understand the true name of anæsthesia has proved a difficult problem to many. To explain it is no mere academic exercise, for given such an explanation, it must influence us alike in the methods we adopt in handling the various anæsthetics and the means we pursue to prevent inherent dangers or to avert accidental perils. For example, in days when nitrous oxide was deemed to be an asphyxiant it was the practice to give it rigidly excluding all air. Now we recognise it has a true anæsthetic action, and so administer it, as we exhibit other general anæsthetics, with air or oxygen to avoid the occurrence of asphyxial symptoms as unnecessary as they are undesirable. Nor should we be justified in employing substances as powerful as are anæsthetics unless we could accurately appreciate their physiological behaviour. It is to inquire what we know about anæsthesia that this note is written.

Paths of Anæsthesia.—(a) *Nerve endings;* (b) *sensory nerves;* (c) *ganglionic centres; and* (d) *perceptive mechanism.*

Anæsthesia occurs under various conditions. All are familiar with the disorders of sensation which occur in various forms of nervous disease, and give rise to hyperæsthesia on the one hand and anæsthesia upon the other: (*a*) Variations in the inter-relations of the end organs of the skin or mucous membrane; (*b*) of the sensory nerve or nerve of conveyance; (*c*) of the ganglionic nerve centres which translate the sensory stimulus into a feeling; and (*d*) the consciousness which perceives the feeling as pain or pleasure may under morbid conditions of the organism give rise to true anæsthesia. Artificially we are able to bring about the same state of things, producing a transient anæsthesia. Thus, by the use of cocaine we act upon the nerve ends in skin and mucous membranes, and prevent conveyance of sensory stimuli passing along the nerves. In the same manner carbolic acid or chloroform when applied to mucous membrane or even skin will, by coagulating the albuminous materials with which they are brought in contact, cause anæsthesia. General anæsthetics even in a very early stage of narcosis will act upon (*c*) the ganglionic nerve tissues and prevent painful sensations being recognised. A few inspirations of ether or chloroform can, without paralysing motion or dulling the conductivity of the nerves, remove sense of pain even though the patient may struggle, fight, or express in no measured terms his views on what is passing through his mind. He is in the land of dreams, his talk and his action have relation with phantom forms and illusory communications peopling that teeming waste. The curtain has dropped betwixt him and earth. In hypnotism we possess an example of a state in which pain is felt, but perceived as pleasure, or at least not recognised as suffering. It is, after all, life is not; only what it seems. The curious in such matters will find in Moll's book many examples of unquestionable instances of absolute anæsthesia, although there was every reason to believe that both the end organs in the skin, the sensory tracts, and the ganglionic nerve tissue were intact and capable of producing and conveying sense stimuli; nevertheless the perception arrived at was not that of pain. The perceptive mechanism was blocked. In the days of Moore, anæsthesia was attempted by compression of the nerve trunks, and nerve sensations were in this way blocked at the point of pressure. Thus every link in the chain between skin, which initiates the sense stimulus, and the nerve centre, which initiates the perception of pain, has been tested in the endeavour to achieve surgical anæsthesia.

Peripheral Sense Organ Anæsthesia.

Local anæsthesia, the blocking of the sense stimulus at the skin or mucous membrane, is of course of little value in any save the most trivial operations. The agents employed and the elaborate plans suggested to produce it have not proved themselves safe or sufficient. Bichât, whose ever delightful book dealing with the phenomena of Life and Death deserves more study than it gets nowadays, taught the duality of life, a life of mere functional existence and one of relativity. In anæsthesia produced by agents such as nitrous oxide, ether, or chloroform the life of relativity falls into abeyance, while the functional life or existence persists. But just as it is found impossible to limit the activity of a local anæsthetic to a regional area, so is it impossible to draw a hard and fast line between the influence of a general anæsthetic upon the cerebral centres and its overflow to the vital centres.

Aim in the Production of Anæsthesia.

The problem before us is to discover how best to produce anæsthesia without allowing the ordinary processes of life to be trenched upon. We have advanced some distance along the road leading to this discovery, but we still have very much to learn, and what is more, very much more to unlearn. Whatever personal satisfaction may be the result of a frame of mind which leads its owner to believe he knows all there is to be known about anæsthetics and anæsthesia, it is one which, sooner or later, will not be shared by the friends of some of his patients.

Study of the Action of Anæsthetics.[2]

In the course of a very able paper on Anæsthesia Laude Brunton suggests alcohol as one of the best substances to study to arrive at an idea of the way in which the general anæsthetics act. He adds that carbonic anhydride is the most widely distributed body having claims to the title of anæsthetic.

Definition of Anæsthesia.

It may be useful in this place to ask what definition of

[1] A paper read before the Odontological Society of Great Britain on Jan. 13th, 1896.

[2] THE LANCET, 1895, pp. 49, 80, and 143. See also Stimulants and Narcotics, by Dr. Anstie.

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"anæsthetic" is to be adopted. Of course, I use the word in its colloquial acceptation, the one first suggested by Dr. Oliver Wendell Holmes. It seems to be now generally admitted that although many things may produce loss of sensation through abeyance of the faculty whereby we feel pain, yet none should be regarded as anæsthetics unless they exert some definite influence upon the tissues of the body rendering them indifferent to pain, and that quite irrespective of their preventing due access to the tissues of some vital constituent. An ox pole-axed is rendered anæsthetic; a man poisoned by a charcoal stove grows anæsthetic after inhaling the fumes of carbonic oxide gas until he is practically at the verge of death; an indifferent gas, such as nitrogen, can by excluding oxygen produce asphyxia, in the advanced stage of which perception to pain grows deadened or lost. In these cases the stunning, the carbonic oxide poisoning, and the oxygen starvation due to the indifferent gas act by virtue of interference with necessary vital processes but possess in themselves no anæsthetic properties and are not anæsthetics. It is true that carbonic anhydride has been employed both as a general and a local anæsthetic, nitrogen has also had its vogue; but as yet pole-axing has met with but scant favour save for the lower animals.

True and False Anæsthesia.

Brown-Séquard[3] has pointed out that carbonic anhydride, chloroform, and other vapours, when allowed to impinge upon the mucous membrane of the larynx, trachea, or even upon certain skin areas, while they are prevented from entering the lungs, produce unconsciousness of pain although the animal is awake and alert. Brown-Séquard's theory that stimulation of the area supplied by the superior laryngeal branch of the vagus produced a sort of reflex inhibition of the brain's power of perception does not concern us at present. Carbonic anhydride has been also used as a general anæsthetic. Ozanam[4] employed a mixture of 75 carbonic anhydride to 25 of air. He rendered a young man unconscious while an abscess was opened. It has also been suggested that ether is rendered more effectual by combining its use with that of carbonic anhydride, and even nitrous oxide has been used in combination with the inspired air of patients, thus producing a mixed anæsthesia due to these two agents. Waller[5] has further shown that carbonic anhydride produced a brief abolition or diminution followed by prolonged augmentation of electrical excitability in the isolated nerve of frogs. This, however, is influenced by the amount of carbonic anhydride used. Expired air produces augmentation of excitability, while a large quantity of carbonic anhydride gives the result stated above—viz., primary abolition and secondary augmentation. The use of carbonic anhydride as a local anæsthetic takes us back to the days of Pliny. Experiments have been undertaken which prove that carbonic anhydride possesses the power of producing unconsciousness only so long as the oxygen tension in the blood remains below a certain level. Gréhant[6] employed mixtures of common air and carbonic anhydride, and found that when the animals experimented upon were completely narcotised the gas of the blood contained 95·4 per cent. of carbonic anhydride as against the normal 34·3 per cent. (Pflüger)[7]. Gréhant's results had been obtained by Lallemand and Perrin as early as in 1860 ("Rôle de l'Alcohol et des Anesthétiques dans l'Organisme," p. 405). This state of unconsciousness, however, is not one of anæsthesia and is only obtained at the expense of grave peril to the individual. The bodies commonly employed as anæsthetics—nitrous oxide, ether, and chloroform—must, then, differ in their action from carbonic anhydride. That this is so our present knowledge permits us to say, but compels us to admit that, so far as many of our methods are concerned, anæsthesia is, as Dastre[8] has said, "the first step in a general poisoning of the organism." It is the realisation of the truth of this dictum which compels us at once to recognise the necessity of understanding the precise range of safety limiting artificial toxæmia, and to appreciate the responsibility falling upon those who undertake the control of producing and limiting it.

Theories of Anæsthesia.

In the early days of chloroform two very careful observers, Flourens[9] and Longet[10] were led by their researches to advance a theory reasonable enough at that time. They asserted that the anæsthetics possessed a selective action upon the nervous tissues. Thus, if an anæsthetic was taken it at once found its way to the nerve cells and produced unconsciousness. Other observers have believed that because post-mortem examination of the tissues of those dead after taking anæsthetics revealed the fact that the nerve tissues contained a somewhat larger proportion of the anæsthetic employed than other tissues, therefore this selective power was a reality. We now know the theory to be false and the reasoning fallacious, as the nervous tissues do not actually take up more of the anæsthetic, but retain more of it.

Mode of Action of Anæsthetics.

It then becomes a matter of very serious moment to ascertain in what way the anæsthetic enters the organism, what paths it takes, and by what means it is thrown off. Knowledge upon these points will enable us to ascertain how far anæsthesia trenches upon the vital processes of the organism. The lungs, the heart, and the brain have been called the tripod of life. Death, we know, must occur when the lungs or the heart cease to perform their function; but of the cerebro-spinal axis only the lower ganglionic centres are, even in mammals, essential to the existence of the animal. Hughlings Jackson[11] in his lectures on the evolution and dissolution of the nervous system, after pointing out that the evolution of the nervous centres is the "putting together of the nervous system," and involves a correlation of the most automatic with the most voluntary—the automatic being, through the necessity of the existence of the creature, the most stable and hence most highly organised; the most voluntary being open to constant change to meet environing necessities, and hence most unstable and less organised—goes on to show how dissolution is the reverse of this evolution—is, in point of fact, unpicking the lock of life. He adds: "In uniform dissolution the whole nervous system is under the same conditions or evil influence—the evolution of the whole nervous system is comparatively evenly reversed. In these cases the whole nervous system is 'reduced,' but the different centres are not equally affected. An injurious agency—say, alcohol—taken into the system flows to all parts of it; but the highest centres, being the least organised, give out first and most. The middle centres, being more organised, resist longer, and the lowest centres, being most organised, resist longest. Did not the lowest centres for respiration and circulation resist more than the highest do, death by alcohol would be a very common thing." If we replace the word "alcohol" by "alcoholic anæsthetic" in Dr. Jackson's remarks we arrive at the pith of our subject. It is, then, the sum and aim of the scientific use of anæsthetics to act upon the higher and more unstable centres of the nervous system without affecting the lower or automatic centres. But the problem cannot be narrowed down to this easily appreciated theorem. The inter-relations of the higher with the lower centres in highly differentiated animals are many and intimate. Dangers appear in every zone of narcosis, lest impulses become initiated which involve the stable centres through the unstable ones.

Under normal conditions the purely vital functions of life are controlled by the lower centres, and, indeed, in more humble animals are incapable of being influenced by higher centres. In man the cerebro-spinal axis can, and does, influence the processes of life in obedience to impulses from without which require some modification of the routine of life. The diver, for example, can control the automatism of his breathing; while under the influence of pain, of shock, or of subjective fear of pain the heart's action may be inhibited. Such interference, however, is seldom excited without voluntary connivance. The simple reflexes of life are controlled when the higher centres are working in health. As soon, however, as any disturbance of these centres occurs through, it may be, an "injurious agent," as Dr. Jackson calls it, there is a danger, and a very real danger, lest simple stimuli from without cause the most widespread reflex actions. Even those protective of the vital processes become, when unrestrained by limiting nervous control, incoördinated and make for the destruction of those very processes of life which it is their function to preserve. And, further, the due performance of the vital processes depends

[3] Comptes Rendus, June, 1885.
[4] Lyman's Artificial Anæsthesia, p. 327.
[5] Proceedings of the Physiological Society, November, 1895, and published in the Journal of Physiology, vol. xviii.: Action of Anæsthetics on Isolated Nerve.
[6] Comptes Rendus de la Société de Biologie, 1887.
[7] Archiv, i., 285.
[8] Les Anesthétiques, Physiologie et Applications Chirurgicales, p. 34.
[9] Comptes Rendus de l'Académie des Sciences, vol. xxiv., 1847.
[10] Archives Générales de Médecine, 1847.
[11] Croonian Lectures, THE LANCET, March 29th, 1884, p. 556. See also Dr. Lauder Brunton, who quotes Dr. Jackson, and applies his reasoning to the question of anæsthesia (THE LANCET, July 13th, 1895, p. 84).

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upon not only nerve impulses and viscera and muscles—it requires that these shall be in such a condition of vitality that they can perform their physiological duties. It presupposes also that these shall be able to meet unusual calls made upon them; if, for example, the "injurious agent" at work be an anæsthetic which produces a sudden fall of blood pressure, for safety the controlling centres of the organism must be equal to some readjustment by which this vascular depression may be counterbalanced. It also necessitates that throughout the whole time of the action of the injurious agent the tissues of the body shall receive their due quota of nourishment. This last essential implies that the blood stream shall be maintained pure in sufficient circulation and capable of removing the products of tissue metabolism. A circulation capable of at once feeding and depurating tissues can only be one which passes through the lungs and there becomes subject to those gaseous exchanges which occur in physiological life. Nor is the problem as yet clearly before us. Elimination of the injurious agent is at least as essential as the due control of those safeguarding vital processes against which it militates. Take chloroform, for example. In persons whose chests are, through pulmonary emphysema, in a state of constant inspiration, the expiratory efforts are so ineffectual that the heavy vapour readily drops into the ever-patent air cells, and there accumulates until it reaches a tension which interferes with and threatens the mechanism of life. In the same way heart failure may occur in spite of a normally acting system of safeguards in the nervous system. If, in response to demands made upon the heart by impulses from the nerve centres that organ through disease is unable to execute the work required of it, fatal syncope arises.

Effects produced by Anæsthetics.

All anæsthetics in common use enter the blood stream through the lungs. The inhaled vapour in passing over the pulmonary mucous membrane produces changes in its epithelium which, according to McKendrick, Newman, and Coats,[12] are inflammatory in character: "The capillaries are contracted, their walls become less distinct, and the blood corpuscles in them become partially dissolved." These changes are, however, rendered less and less as the vapour employed is diluted more and more. It is probable that these effects are the result of an irritant as far as the epithelial cells and capillaries are concerned. The influence upon the corpuscles is, however, different, and, furthermore, varies in the case of different anæsthetics. In every case blood removed from the body and shaken with an anæsthetic shows destruction of the corpuscles and reduction with pouring out of the hæmoglobin. It would appear, also, that a similar if a less marked phenomenon occurs in the body. Da Costa[13] has demonstrated that "etherisation produces a marked diminution in the hæmoglobin of the blood." He finds, also, that with destruction of the red discs a change in the character of the leucocytes becomes apparent. I am at present investigating this point, and have up to the present time found that a decided diminution in the corpuscles takes place under nitrous oxide, ether, and chloroform. It is, however, not improbable that factors other than the anæsthetics may be found at work in bringing about the result. The combination or association between the gaseous anæsthetics or vapours and the constituents of the blood must be a loose one, since in their presence oxygen is displaced. Were they to form combinations as stable as that which carbonic oxide establishes, not only would the anæsthetic displace, but would render it impossible for the re-formation of, oxyhæmoglobin. Hence death must result. Whether or not in certain conditions the corpuscles have less power of again taking oxygen after prolonged anæsthetisation it is impossible to say. It seems that probably such is the case. Deoxidation of the tissues[14] at one time was thought to be the explanation of anæsthesia; we now recognise that this is not so, for among other reasons we can produce profound anæsthesia with hyper-oxygenation, and many deoxidating bodies have no anæsthetic properties. When it is remembered that the tissues are dependent upon the red corpuscles for their nutrition this question of their destruction by anæsthetics assumes a position of great importance. Hayem[15] has demonstrated that in anæmia and diseased states of the kidneys and liver the corpuscles are manifestly deficient in quantity and quality; and Haldane, working with Lorrain Smith,[16] has asserted that the corpuscles possess a different oxygen capacity. If, for example, one layer of these bodies can acquire and convey a certain amount of oxygen to the tissues, another will carry more or less, as the case may be. We have yet to learn how far pathological conditions affect this oxygen capacity of blood corpuscles. It is not impossible that the behaviour of anæsthetics towards the corpuscles, which it has been shown they affect so profoundly, may be such as to modify in a material degree their capacity for conveying oxygen to the tissues. The behaviour of anæsthetics towards corpuscles also illustrates a further and important point in our present consideration. There is a common tendency to accredit the central nervous system with absolute control over the vagaries of anæsthetics, to believe that if the ganglionic centres are keeping pace with the requirements of the organism no fear of danger need be entertained. Certainly in the case of chloroform this belief is delusive. That body is a virulent protoplasm poison. Ether and nitrous oxide also act upon undifferentiated protoplasm, and all anæsthetic agents are able to influence living tissue even when devoid of nervous connexions.[17] Pickering, working with the embryonic heart, has demonstrated that not only does chloroform act directly upon tissues when they are freed from nervous control, but so far differentiates between them as to affect them in various degrees, for while chloroform depresses the rhythm, causing diastolic stoppages of the auricle and ventricle, it proves itself much more toxic to the auricle than to the ventricle. Ether stimulates the embryonic heart, although very large doses will eventually stop it in diastole. The frog's heart, again, can be removed out of the control of the central nervous system, and can be again and again stopped with chloroform or ether when one or other of these is allowed to circulate through it in an adequate fluid; and while it is often impossible to restore it in the former case, it is difficult to kill it when ether is perfused. It must be, then, that these anæsthetics are able, quite independently of the central nervous system, to act upon corpuscular and muscular tissue. Thiem and Fischer's research indicates that chloroform can produce a change in the heart muscle which appears identical with fatty degeneration; while McWilliam[18] has proved that dilatation changes in the capacity of the heart as a whole follow immediately on the inhalation of chloroform. These changes are also influenced largely by the actual quantity of chloroform contained in the blood as well as the length of time it has access to the tissues. It is further probable that the changes which we know take place as a result of alcohol possess analogues in those brought about by anæsthetics, and so that the nervous tissue is also structurally affected by them. It appears, then, not improbable that the effects produced by anæsthetics upon the corpuscular elements of the blood may sooner or later be shown to produce those destructive changes in the muscle of the heart and other tissues which are found to undergo fatty changes as a result of inhaling chloroform &c. The lessened oxygen supply to these tissues may, it is hypothecated, produce such structural changes. Waller and others have demonstrated the changes in isolated nervous tissue, but as yet no full research has been conducted upon the nervous elements as they occur in the body. An attempt was made in this direction by me in working out the physiological action of nitrous oxide gas,[19] with results which, I think, proved the anæsthetic properties of that gas. It must then appear probable that the changes brought about in the blood elements react upon the more stable tissues by lessening their supply of oxygen while the tissues themselves are brought under the influence of the anæsthetic which the blood stream conveys to them. The next changes which are brought about by the anæsthetic are those connected with respiration, circulation, and nerve regulation.

In obedience to stimuli conveyed from the lungs, diminution of the amount of oxygen or its excess leads to corresponding respiratory efforts. In association with these are the somewhat complicated series of changes in the blood pressure, the cardiac rhythm, the dilatation and constriction of the capillary areas which go to form the

[12] Glasgow Commission on Chloroform, quoted by Dr. Lauder Brunton, op. cit., p. 85.
[13] The Blood Alterations of Ether Anæsthesia, by Dr. J. C. Da Costa, Medical News, Philadelphia, March 2nd, 1895.
[14] Practice of Artificial Anæsthesia, Brit. Med. Jour., Sept. 19th, 1885.
[15] Du Sang, 1885.
[16] Journal of Physiology, vol. xvi., p. 468.
[17] Ibid., vol. xiv., p. 446.
[18] Ibid., vol. xiii., p. 859.
[19] Transactions of the Odontological Society, 1887.

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blood circulation. Not only may these be thrown out of gear by impediment to the pulmonary circulation arising from asphyxia, the commonest danger of anæsthetics, but they may be profoundly affected from without through skin or visceral stimuli, leading to disaster. Oliver,[20] by means of his ingenious instrument the arteriometer, is able to record changes in the size of the bloodvessels under various circumstances. He very kindly assisted me in some observations made at University College Hospital, and we found that during various stages of anæsthesia the pulling upon the intestines, the spermatic cord, &c., incidental to various operations upon viscera produced the most startling changes in the diameter of the radial artery. And these changes varied under different anæsthetics. This must indicate a profound series of impressions upon the control system. To my mind many disasters under anæsthesia are explicable by these observations. Under chloroform especially the shock conveyed by the removal of a tooth would, if the anæsthesia were not deep, in a certain number of cases produce reflex inhibition of the heart. That this reflex inhibition does occur has been proved by many observers, but the results of Amrus and Gärtner[21] are conclusive. Even where the animal is deeply anæsthetised they found weak faradaic currents applied to the vagus produced a very prolonged heart stoppage. When the heart pause had persisted for a certain time respiration also failed; slight spasms succeeded.

In the paper to which I have referred above Lauder Brunton insists upon a form of death under anæsthetics which is certainly a common one, and which, when recognised, must relieve anæsthetics of the responsibility in very many fatalities. Adopting Caspar's views, he attributes these deaths to neuroparesis.[22] Not only do circulation and respiration fail simultaneously, but all the nervous centres are instantly annihilated. The death is one from shock. It may follow shock from fear or injury; it may, and does, result from pain felt during imperfect anæsthesia, or even before any appreciable amount of the anæsthetic has been taken. I think a study of the cases of fatalities published will convince you that a large number of examples of death result from neuroparesis.[23]

Anæsthetics are, however, not simply dangerous *per se*. They too frequently have to be given to those whose tissues are already in a diseased condition. Take anæmia, fatty degeneration, "renal inadequacy," various functional and organic diseases of the ganglionic centres—of the heart—and cyanosis the result of obstructive pulmonary or cardiac diseases, as examples of the many pathological states which place a patient, even before taking an anæsthetic, in a condition which renders him especially liable to suffer from such phenomena caused by anæsthetics as destruction of corpuscles, irritative inflammatory changes in the epithelium of the lungs and kidneys, fatty changes in the heart, irregular and uncontrolled nerve storms. All such people are sometimes compelled to take an anæsthetic. In their cases not only must the rules be adopted in giving the anæsthetic which in the normal human being permit of the production of narcosis without interference with the vital processes of life, but full allowance must further be made for the crippled condition of their organs and tissues, so that they may, in spite of their disabilities, carry on life during and throughout the anæsthesia. This is the great problem, and this it is which taxes the knowledge, skill, and resource of the anæsthetist.

What, then, are the practical lessons our present knowledge teaches us? In general we must conclude that the action of the anæsthetic should be restricted within those clearly defined limits which involve only the higher ganglionic centres—that under no circumstances should incomplete anæsthesia be deemed sufficient for even the most trivial operation.

Of methods our present knowledge allows us to say much, but it is impossible for me to do more than indicate in the briefest way what rules should guide us. All methods involving asphyxial symptoms are open to grave censure. In the case of all anæsthetics it is possible to produce unconsciousness and yet to avoid cyanosis. Nitrous oxide gas, once thought to be an asphyxiant, is now known to be a true anæsthetic, and to be capable of being given with oxygen or air, and to produce peaceful anæsthesia without any asphyxial phenomena. Of ether the same is true. Of chloroform it must be said that any association between it and asphyxia must lead in the healthy subject to grave peril and in the diseased to fatal results.

A word further. Close study of the behaviour of anæsthetics makes me certain that all methods which employ a large quantity of anæsthetic substances are faulty. The pneumonia, the renal catarrh, the cardiac asthenia following anæsthesia are due, in most cases, not so much to the anæsthetic as to the unwary way in which it is employed. When anæsthesia is better understood, and those who employ anæsthetics recognise more the responsibility they incur, when the examining boards demand of their candidates at least a nodding acquaintance with anæsthetics and their uses, then will there be fewer fatalities and more common-sense practice of this branch of the healing art.

Mortimer-street, W.

[20] Pulse Gauging, 1895.
[21] Wiener Medicinischen Blätter, No. 20.
[22] Dr. Lauder Brunton: THE LANCET, July 6th, 1895, p. 23.
[23] On Nitrous Oxide Anæsthesia, British Journal of Dental Science, Oct. 11th and 15th, 1895; also Clinical Report on Deaths under Chloroform, THE LANCET, 1893.

ON

SOME POINTS IN PERNICIOUS ANÆMIA, WITH SPECIAL REFERENCE TO TREATMENT WITH BONE MARROW.

BY GEORGE BERTRAM HUNT, M.B., B.S. LOND.,
LATE HOUSE PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL.

As house physician to Dr. Ringer in University College Hospital I have had the opportunity of examining the following cases. They seem to be worth recording, both because cases of pernicious anæmia, especially accompanied by the result of the necropsy, are interesting in themselves, and also because in these cases the blood was regularly examined in order to compare the results obtained by treatment with red bone marrow with those obtained by treatment with arsenic. The corpuscles were measured by means of Thoma-Zeiss's hæmo-cytometer, the percentage being calculated by comparing the number of corpuscles in a cubic millimetre with a normal of five millions in the two male cases and of four and a half millions in the case of the woman. The hæmoglobin was estimated by Gowers's hæmoglobinometer. The extract of red bone marrow which was given was prepared by splitting ox ribs along the middle and scooping out the soft cancellous bone in the centre, the meshes of which contained the red marrow. This was freed from bone spicules by pounding in a mortar with a little water and passing the watery extract through fine muslin. The extract obtained from two ounces of the bone marrow was given in the twenty-four hours.

CASE 1.—The patient, a man aged forty-five, was admitted with a history of feeling faint and giddy for the last five weeks. During this period he had also suffered from numbness and swelling of the feet, and from severe headache and shortness of breath. The digestion was bad, and on several occasions he had had slight attacks of hæmatemesis. For the last few weeks he had entirely lost the sense of taste. On his admission the mucous membranes were found to be extremely pale, the skin of the body, especially of the face, being of a lemon-yellow tint. There was slight wasting of the muscles and subcutaneous fat; there was no hyperæsthesia of the sternum and long bones; well-marked œdema of the ankles was present; the arteries were rather fibroid and pulsated visibly; there was a well-marked systolic murmur at the pulmonary cartilage, and a separate fainter systolic murmur at the apex; and well-marked retinal hæmorrhages were observed in both eyes. Examination of the blood showed that the red corpuscles were reduced to 12 per cent. and the hæmoglobin to 32 per cent.; the red corpuscles did not form *rouleaux* and exhibited a variety of shapes and sizes. The urine was of specific gravity 1012 and rather darker than usual; it contained no albumin; the total amount of urea in the twenty-four hours averaged 25 grammes; a well-marked band of urobilin was present. The patient was kept in just over a month; he had no medicine but arsenic, which was gradually increased from 9 to 42 minims a day. Under this treatment the blood rapidly improved, the corpuscles rising from 12 per cent. to 60 per cent. and the hæmoglobin from 32 per cent. to 60 per cent., as shown in the first chart, and at the same time the face and mucous

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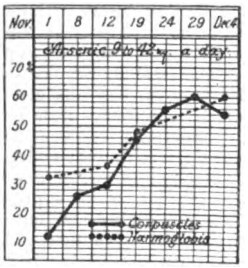
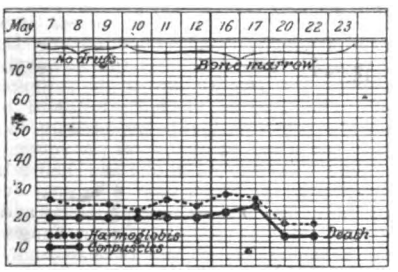
membranes became of a much better colour, while the digestion and shortness of breath improved. He then went back to work, taking twenty drops of liquor arsenicalis a day. Five months later the patient was readmitted, complaining that all his old symptoms had returned during

FIG. 1.



the previous month. His condition was then much as before. There were fresh retinal hæmorrhages in both eyes, and the remains of the old ones could be seen. There was also a large number of submucous hæmorrhages about the size of a pin's head on the under surface of the tongue. The corpuscles varied very much in shape and size, and a large number of small rather deeply coloured ones were seen. After four days the treatment with red marrow was begun, and this was continued up to the end. As shown in the second chart the blood condition remained nearly stationary until a few days before death, when there was a distinct fall. For the first few days he felt slightly stronger, but during the last week he relapsed somewhat, and had a good deal of vomiting, but no diarrhœa. The temperature, which at first never rose

FIG. 2.



above 100° F., touched 101° on most days during the last week. Death was quite unexpected, and occurred apparently from cardiac failure.

Necropsy.—There was a fair amount of bright yellow subcutaneous fat; the muscles were of good colour. There was some excess of fat round the pericardium and on the surface of the heart. The blood was paler than usual, watery, and did not clot. There were a few subserous hæmorrhages over the ventricles, more in the auriculo-ventricular groove, and a great many over the surface of the right auricle. There were a great many hæmorrhages under the endocardium of the right auricle, and on the section they were seen in muscular tissue of the right auricle. There were a few hæmorrhages about the size of a pea scattered through the lung tissue, and two or three under both layers of the pleura as well as under the parietal peritoneum. No hæmorrhages were found in the muscles or solid organs, so that the loss of blood caused by the few visceral hæmorrhages, both in this and in the next case, would not account for the anæmia, as was recently suggested by Dr. Stockman.[1] The heart muscle was pale and evidently extremely fatty, and much softer than natural; the cavities of the heart were not dilated; the mitral orifice admitted three fingers; there was some deposit of fat in the edge of the valve. There was no excess of fluid in the pleura; the lungs were œdematous. The liver and kidneys were very fatty; both gave marked reaction for iron on staining with ferrocyanide of potassium and dilute hydrochloric acid, the iron granules being chiefly in the periphery of the lobules of the liver and in the convoluted tubules of the kidney. The stomach was normal. Microscopical sections showed the glands to be also normal. The intestines were likewise normal and contained no worms. On dividing the middle third of the shaft of the femur the marrow was seen to be pink and gelatinous, and in some parts of a deep crimson colour. The bony trabeculæ, which normally occur in the medulla of the bone, were almost entirely absent. The marrow was examined microscopically. Instead of consisting entirely of fat globules bound together by connective tissue containing a few marrow cells, as is usual in the marrow of the shafts of healthy bone, it was seen to be made up mostly of a large number of colourless marrow cells such as normally occur in the red marrow. There were some scattered fat globules and also a large number of nucleated red corpuscles, most of which were of the same size as a normal red corpuscle, but some of them were two or three times as large. Many of them were undergoing division, but the formation of new red corpuscles by a process of gemmation from a large nucleated red cell, as described by Dr. Mott in the marrow of a case of pernicious anæmia,[2] was not seen. In the deep crimson areas was a large number of irregularly-shaped, non-nucleated red corpuscles, such as were seen in the blood during life, these darker areas being probably due to hæmorrhage into the marrow substance. These results agree with the changes found in moderately severe anæmias in the few recorded cases. Rindfleisch, in a very severe case, found the colourless marrow cells to be few in number, their place being taken by an enormous number of nucleated red corpuscles, some of which were of very great size, exceeding a normal corpuscle by as much as six diameters. The same results were obtained by Muir in five cases of pernicious anæmia.[3] He also found that in the most severe cases there was a more marked increase in the red corpuscles, both nucleated and non-nucleated, in the marrow, the increase being at the expense of the fat cells and the colourless marrow cells. It was also in these severe cases that the great number of the large nucleated red corpuscles was found. Many observers, especially Neumann, Litten, and Orth, have found similar changes in animals after bleeding, so that the most recent authorities consider that the change in the marrow is not the cause of the anæmia, but is rather an attempt to produce new corpuscles to compensate for the deficiency.

CASE 2.—The patient, a man aged sixty-seven, was first admitted in November, 1891. The history was that he was quite well until fifteen months previously, when he had a severe attack of diarrhœa. Since that time he had been getting weaker, and had also suffered from occasional attacks of excessive diarrhœa. For the last three months his legs had been swollen and he had been very short of breath on exertion. He was kept in the hospital for a month and treated with arsenic, during which time the corpuscles rose from 29 per cent. to 40 per cent., and the hæmoglobin from 39 per cent. to 42 per cent.; at the same time the patient's strength and general condition improved. For the next three months he continued to work, but then the debility, œdema of legs, and shortness of breath began to return, and he was readmitted in May, 1892. He was treated with arsenic, but, owing to the frequency of severe vomiting and diarrhœa, it was only given in small doses and had frequently to be discontinued. During the month he was an in-patient there was no improvement, the corpuscles remaining about 25 per cent. and the hæmoglobin about 35 per cent. He was then sent to a convalescent home, where he improved greatly and was able to return to work. He remained at work for two months, when the old symptoms returned, and he was readmitted in February, 1893. He was an in-patient for slightly over a month, during which time he was taking twelve minims of liquor arsenicalis a day without any gastro-intestinal symptoms. The corpuscles rose from 15 per cent. to 40 per cent., and the hæmoglobin from 35 per cent. to 42 per cent. He then kept fairly well for eighteen months, when he relapsed, the vomiting and diarrhœa being especially severe. He also stated that whenever the bad symptoms appeared the yellow colour of the skin became marked. On his admission in May, 1895, the patient was found to be considerably wasted; the skin

[1] Brit. Med. Jour., May 11th, 1895.

[2] Practitioner, August, 1890. [3] Journal of Pathology, 1894.

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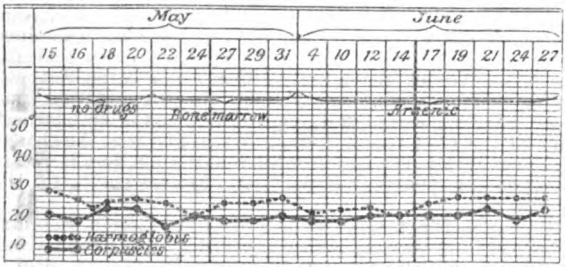
had a yellow earthy tint, and in many parts, especially at the flexures and over the abdomen, was deeply pigmented; there were also many round pigmented patches on the trunk. There were about fifteen small subcutaneous hæmorrhages over the chest and abdomen; some œdema of the feet existed; the mucous membranes of the lips and tongue were of a faded yellow colour, and there were a large number of submucous hæmorrhages on the under surface of the tongue. He was dull and apathetic, and often wandered in his speech. The blood looked pale when drawn; the corpuscles did not form *rouleaux*, and there were many poikilocytes. The corpuscles averaged 20 per cent. and the hæmoglobin 28 per cent. The urine was distinctly darker than usual, of specific gravity 1008, contained no albumin, and gave a well-marked band of urobilin. A faint systolic murmur was heard at the second left cartilage, and none at the apex. Systolic murmur was easily produced in the carotids and femorals by slight pressure. There was no venous hum. The temperature was normal except on one day, when it rose to 102° F. The discs were pale; there were no hæmorrhages. The patient was kept for a week without drugs, and the blood was estimated on alternate days and found to remain fairly constant. He was then put on the red marrow for a fortnight, during which time he became more depressed and seemed to be losing strength. As there was no improvement in the blood condition, as shown in Fig. 3, it was not thought safe to continue with the marrow as long as was intended. He was then put on arsenic, which he had been taking for four weeks, except for a few days when it was omitted on account of diarrhœa and vomiting. The amount taken had varied from eighteen to thirty drops a day. There was no improvement in the blood-condition and the patient's strength and mental condition were no better. As he was evidently getting worse under

FIG. 3.

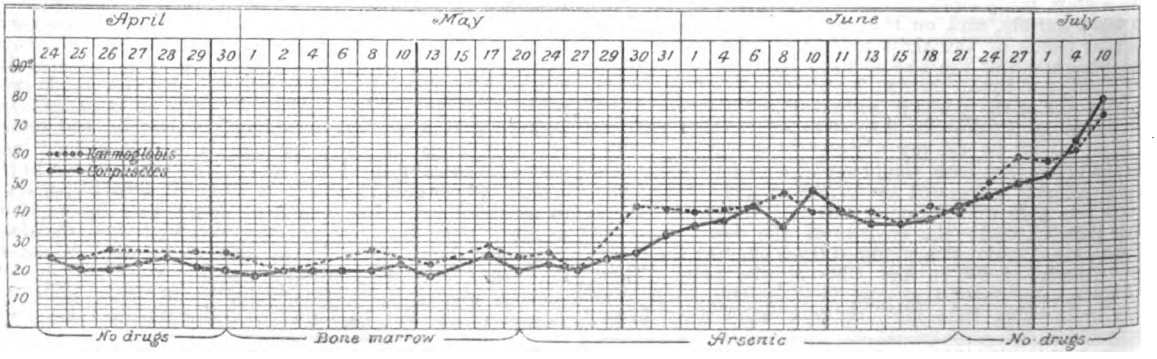


both red marrow and arsenic it was thought advisable to try the yellow marrow as this had been apparently beneficial in some of the recorded cases. When this was first used the patient was quite prostrated with weakness and the heart was evidently getting weaker; it was given for four days without affecting in any way the gradually increasing prostration and cardiac failure, from which the patient died. During the time he was taking the yellow marrow the blood was not examined as the slightest prick seemed to be very distressing to him.

Necropsy.—There was marked absence of subcutaneous fat; the muscles were much wasted, but were of good colour. The blood was pale and watery; no hæmorrhages were found under the pleura, pericardium, endocardium, and peritoneum, and none were seen in the solid organs or muscles. Two layers of pericardium were adherent. The cavities of the heart were not dilated; the heart-muscle was extremely fatty; well-marked "tabby-cat" striation was seen, especially in the left ventricle. The lower lobes of both lungs were extremely œdematous, breaking down readily under pressure, and were apparently in an early stage of pneumonia, probably caused by the difficulty of expectoration and the cardiac failure. Slices of the liver, spleen, and kidneys became deep-black in colour when placed in a solution of ammonium sulphide; this was especially marked on comparing the staining in this case with that in the organs of a case of pneumonia which had been examined in the same way. Sections of the liver stained with ferrocyanide of potassium and hydrochloric acid, examined microscopically, showed a number of deep-blue granules in the periphery of the lobules. The supra-renal bodies were normal. The stomach was contracted, but otherwise normal; the intestines were normal. No hæmorrhages were found under the membranes of the brain, but a few pin-point hæmorrhages were seen in the white substance. The backs of both eyes were removed; there was no retinal hæmorrhage. The bone marrow from the middle of the shaft of the femur was deep-red in colour and gelatinous. Microscopical examination showed marked diminution in the fat globules with great excess of the marrow cells, with the presence of many nucleated red corpuscles.

CASE 3.—A woman aged forty-nine was brought to the hospital in a fainting condition. The history was that she had been getting weaker for the last six months; during this time she had had several fainting fits, to which she had not previously been subject. Lately she had been suffering from shortness of breath, swelling of the legs, and pain in the forearms and over the shins. She also stated that she had been losing flesh. On examination the mucous membranes of the lips and eyelids were found to be almost colourless. The skin was of a yellow saffron colour. The conjunctivæ were quite white. The muscles were flabby, but not wasted. The blood was pale; the corpuscles did not form *rouleaux*, but ran into groups; many were irregular in shape, and some had one or more processes. There was a large number of small, deeply coloured corpuscles. The corpuscles averaged 22 per cent. and the hæmoglobin 24 per cent. The heart's impulse was diffuse and slapping. At the apex there was a systolic murmur, followed by a faint diastolic murmur, the latter being strictly localised to a small area just inside the nipple. A separate systolic murmur could be heard at the base, being louder on the left side. The urine was alkaline, even when first passed, with no excess of pigment and a faint cloud of albumin. It was examined by Dr. Vaughan Harley, who found no pathological urobilin of MacMunn, but when using Garrod's caustic soda method there was a marked increase in the hæmatoporphyrin; the urea averaged twenty grammes per diem. There were no submucous or retinal hæmorrhages. There was well-marked hyperæsthesia over the sternum and tibia on light percussion. She had occasional vomiting, but no diarrhœa. The temperature often rose over 100° F., and on several occasions had been over 101°. She was kept for a week without drugs, and was then put on extract of red bone marrow. This was continued for three weeks without any improvement in the blood state or

FIG. 4.



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in the general condition. She was then put on arsenic, beginning with nine minims of the liquor and rapidly rising to seventy minims a day. One week after the commencement of the treatment a faint pink flush was noticed on the cheek, and she was able to sit up in a chair for the first time. The slow, but almost continuous, improvement in the blood is shown in Fig. 4, the corpuscles rising from 20 per cent. to 48 per cent. and the hæmoglobin from 26 per cent. to 48 per cent. in three weeks. On June 10th she first noticed a slight cough; this grew very troublesome during the next week, keeping her awake at night; it became much better about the 19th. It is interesting to note that the blood chart shows that the rise stopped during this period and there was even a distinct fall at the commencement, the blood beginning to improve again as the bronchitis passed off. The patient continued to take the arsenic for four weeks without any vomiting, diarrhœa, or other toxic symptoms. She then began to have a feeling of numbness and tenderness in her hands, with some weakness and loss of sensation. The arsenic was immediately stopped, but two days later she had the tingling and numbness in her legs, with some loss of sensation; at the same time the knee-jerk was lost and there were distinct wrist-drop and ankle-drop. In a week the tingling sensation had almost entirely disappeared, and she had regained sufficient power in her legs to be able to walk; the paralysis, which was evidently due to a peripheral neuritis, had gradually passed off. Her general condition was very good, and she felt much stronger. Examination of the blood showed the corpuscles to be almost normal in shape, only one or two pear-shaped forms being seen in a field. It was noticeable that the improvement in the blood which was started by the arsenic continued after this had been omitted, the corpuscles in fourteen days rising from 42 per cent. to 80 per cent., and the hæmoglobin from 40 per cent. to 75 per cent., when the observations were discontinued.

Remarks.—There does not seem to be much doubt that these were three cases of genuine pernicious anæmia. In none of them was there any history of previous loss of blood, and careful examination failed to reveal any other diseases, so that they would not come into the category of secondary anæmias. The blood in each case was fairly typical; it exhibited in all the relative excess of the hæmoglobin compared with the corpuscles, which according to Hunter is the only characteristic feature of the disease; poikilocytosis was also so marked as to point to the anæmia being probably pernicious. No nucleated red corpuscles were seen in the blood, but it is apparently not common to find these unless films of the blood are dried and stained. In none of them was there any excess of the white corpuscles. In two of the cases the urine was distinctly darker than usual, and in the case in which it was light excess of hæmatoporphyrin was found. In one case there was very marked reduction of the urea; in none was there a noticeable deposit of uric acid crystals. In two of the cases gastro-intestinal disturbances were marked features. The cardiac condition is of interest. All the cases were carefully examined for increase of cardiac dulness, as described by Dr. A. Foxwell [4] in cases of debility; but in none of them was any dilatation of the heart detected. All three cases presented a well-marked systolic murmur at the base on the left side, and in two of them there was a systolic murmur at the apex, all these murmurs being evidently due to the anæmia. In the third case there was an early diastolic murmur accurately limited to a small area just inside the apex, which is hard to account for. It evidently was not due to mitral obstruction, as it disappeared as the anæmia became less. Eichorst describes three cases of pernicious anæmia in which diastolic murmurs were heard, but all of these were at the base, and Dr. Sansom explains these cases as being due to a continuous venous hum produced in the vessels of the neck, the hum being overpowered during the systolic period by the murmur, but audible during the diastole. This could not have been the case here, because the murmur was only heard in the first part of the diastole, and, further, because it was not heard at the base of the heart. In all the cases it is noted that the veins at the base of the neck were full and pulsated, but that this pulsation was not due to any cardiac change is shown by the fact that they collapsed with the systole of the heart. In none of the cases were there any ataxic or spastic symptoms such as have lately been described as due to sclerosis in the posterior or lateral columns of the spinal cord in cases of pernicious anæmia. In only one of the cases were there retinal hæmorrhages to be detected, but in two of them there were very well-marked hæmorrhages under the mucous membrane of the under surface of the tongue, nothing resembling which was seen in a large number of patients suffering from other diseases, so that it might be useful to look beneath the tongue as an aid to diagnosis in those cases in which an examination of the eyes is not convenient. As regards the result of the treatment it will be seen that the red marrow did not have the slightest effect in any one of the three cases, one of which began rapidly to improve as soon as the patient was treated by arsenic. Goldscheider of Berlin was apparently the first to use the extract of bone marrow. He gave it by hypodermic injections to a patient suffering from pernicious anæmia; there was no improvement, and the patient died. Dr. Dixon Mann [5] published four cases of chlorosis and secondary anæmia which he successfully treated with extract of red bone marrow, given by the mouth. Dr. Fraser [6] first published a case of pernicious anæmia which had greatly improved under a prolonged course of bone marrow, which was given continuously, arsenic, iron, and salol being given with it at different periods. Dr. Barrs [7] has described a case in which arsenic was given without affecting the anæmia till paralysis was produced; bone marrow was then given with extremely good effects. In the same paper, however, another case of pernicious anæmia was mentioned in which there had been no improvement under bone marrow. Dr. Stockman [8] reported a case treated with bone-marrow, the percentage of corpuscles and hæmoglobin sinking under the treatment. In the same number another case was reported by Dr. W. B. Drummond in which there was some improvement under bone marrow, but a greater effect when arsenic was given in addition. Dr. Daneforth [9] reported a case cured by the administration of bone marrow and arsenic together. Dr. Billings [10] fully reported two cases treated with red bone marrow and arsenic successively. In one case there was no improvement with either, and the patient died; in the other there was no improvement with bone marrow, but the patient got better readily under arsenic. These cases only include those of pernicious anæmia which have been treated with bone marrow; cases of chlorosis and leucocythæmia are also reported which have done well under the same treatment. Of these twelve cases of pernicious anæmia, including the three reported above, treated with bone marrow, two may be excluded, as arsenic was administered at the same time; of the remaining ten cases, eight did not improve under marrow, two of them afterwards doing well under arsenic, while two, the cases of Dr. Fraser and Dr. Barrs, were greatly benefited by the bone marrow. The conclusion to be drawn seems to be that bone marrow should not be given unless a thorough course of arsenic has been given and has failed. One reason for the different results obtained in different cases may be the well-known difficulty in diagnosis in this disease, as a case may be universally supposed to be one of pernicious anæmia till death occurs, when some deep-seated disease, especially affecting the stomach or intestines, may be discovered which has caused the anæmia. Another may arise from the differences in the bone marrow. If it is obtained direct from the butcher it is almost certain to be white marrow from the shafts of the long bones, consisting of little else than fat, the red marrow, which is a blood-producing organ, occurring only in the ribs and cancellous ends of the bones, and requiring to be extracted from the bony meshwork in which it lies, so that in all reported cases the source from which the marrow has been obtained should be particularly stated.

It is difficult to explain in what way any good effect could be produced by the administration of bone marrow in pernicious anæmia. Two suggestions might be made, corresponding to the two theories that the changes in the bone marrow found post mortem are either the result or the cause of the disease. If the first view is taken, that the change in the marrow is due to its over-action in its endeavour to manufacture new red corpuscles, it might be supposed that the marrow which is administered either might help to form new corpuscles or else might contain some substance which

[4] THE LANCET, Nov. 14th, 1891.

[5] THE LANCET, March 10th, 1894.
[6] Brit. Med. Jour., June 2nd, 1894.
[7] Ibid., Feb. 16th, 1895. [8] Ibid., May 17th, 1895.
[9] Chicago Clinical Review, 1894.
[10] Johns Hopkins University Gazette, March, 1895.

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would act as a stimulant to the blood-forming organs. It would, however, be very difficult to believe that the marrow of an animal taken into the stomach and digested could form new corpuscles, and, as the only tissue which is supposed to form new red corpuscles in the adult—i.e., the red marrow—is already greatly increased, any substance greatly stimulating this tissue to increased action would be useless. If the other view is taken, that the changes in the bone marrow are in some way the cause of the disease, it might be thought that the administration of marrow extract might supply some deficiency, in the same way as the administration of thyroid gland extract supplies some deficiency in myxœdema. But it is contrary to the general opinion to suppose that the changes in the marrow are the cause of the disease, in the same way that the atrophy of the thyroid gland is the supposed cause of the myxœdema. Supposing it is the cause, the red marrow in these cases is hypertrophied, not atrophied, so that there is no deficiency which can be compensated by giving the extract.

University College Hospital.

A CASE OF HÆMORRHAGE INTO THE GREAT OMENTUM.

BY PAUL BUSH, M.R.C.S. ENG., L.S.A.,
SURGEON TO THE BRISTOL ROYAL INFIRMARY.

THE following case is of some interest as an example of peritoneal hæmorrhage.

A young man aged twenty-five years was admitted to the Bristol Royal Infirmary, under the care of Dr. Henry Waldo, on May 16th, 1894, complaining of pain in the left side of the chest, which had commenced four days previously. The temperature was raised, and there was dulness at the base of the left side of the chest. He suffered from varicose veins of the legs, and an ulcer was present above each outer ankle. For six or seven days he remained in much the same condition. The temperature ranged between 100° and 102° F., the respirations were 40 to the minute, and the pulse 120. At the end of that time he commenced to complain of abdominal pain and tenderness. Peritonitis was thought probable, and the question of its being suppurative was considered. Twelve days after admission he was transferred to my care. The following day an incision was made in the middle line of the abdomen about midway between the pubes and the umbilicus. The veins cut by the incision were varicose and there was profuse hæmorrhage. All bleeding having been stopped with artery forceps and the incision slightly enlarged it was found that there was a large dark mass occupying the position of the omentum. It consisted of omentum caked with blood. It was attached to the colon. The veins in the omentum were much dilated, some being as large as the patient's thumb and evidently filled with fluid blood, looking at first sight like gangrenous empty small intestine. On the hand being introduced into the abdominal cavity a quantity of dark-coloured purulent blood escaped. No ruptured vein could be found, and as the hæmorrhage had evidently ceased the omentum was returned into the abdomen. The peritoneal cavity was flushed out with warm boracic lotion by an irrigator; a glass drainage-tube was inserted at the lower end of the wound, and the parietes brought together with silkworm gut. After the operation the patient complained of much less pain, and his general condition improved a good deal for the first twenty-four hours, but after this his pulse gradually failed, and he died of syncope two days after the operation.

Necropsy.—A post-mortem examination was made by Mr. H F. Mole, house physician to the infirmary, who was acting as pathologist at the time of the patient's death. The great omentum and the surrounding organs were removed and kept. The specimen showed a mass of blood-clot about the size of the closed fist, situated below the great curvature of the stomach and above the transverse colon. This mass was intimately connected with the great omentum, but it was not easy to say between which layers it was confined. Whether situated in some small secondary cavity between the ascending and descending divisions, or whether between the layers of peritoneum that form one of those divisions, was not clear. One point, however, was evident: that the mass of blood-clot was much more closely connected with the transverse colon than with the stomach, and it seemed probable that the hæmorrhage started between the layers of peritoneum attached to this portion of the large intestine. One feature that was at once obvious was of interest. A large hæmorrhage was situated between the stomach and the transverse colon, and yet did not occupy the lesser peritoneal cavity, to which cavity it now seems the custom to ascribe collections of fluid that present anteriorly between the stomach and the colon. This hæmorrhage was not the only one, others about the size of hazel nuts were situated lower down between the layers of the great omentum, and one much more extensive behind the peritoneum. Mr. Mole thus described this last blood effusion: "A thick mass of firm clot was found overlying the left kidney and surrounding the spleen; the mass was firm and heavy, and a clean section of it could be made." The mesentery was unaffected. No ruptured vessels from which the blood could have escaped were found. Other points of interest were the size of the spleen, which weighed 14½ oz., and the presence of 30 oz. of fluid in the left pleural cavity with adhesion of the lung to the diaphragm and pericardium. The specimen showed no effusion of blood into the coats of the colon, and the post-mortem notes made no mention of the existence of such a feature in other parts of the intestines. This fact seems to exclude thrombosis of the mesenteric vessels as a probable explanation of the hæmorrhage, since in cases of thrombosis of these vessels the hæmorrhage is almost entirely limited to the walls of the intestines. The presence of large veins in the omentum suggest that the hæmorrhage may have arisen in rupture of one of them, but against such a view is the fact that there were other hæmorrhages which had no connexion with the one we have been considering. The obscure illness, with rise of temperature, which existed some days before symptoms of abdominal disease developed seem to point to some pathological series of events less simple than would be occasioned by a primary rupture of an abdominal vein. In our ignorance of its precise nature we may place the case in the category of the ill-understood instances of hæmorrhage into the peritoneum that occur from time to time.

Bristol.

RECOVERY IN HÆMORRHAGIC SMALL-POX.

BY T. F. RICKETTS, M.D., B.S. LOND.,
MEDICAL SUPERINTENDENT OF THE HOSPITAL SHIPS;
AND
W. S. FRITH, M.B., B.C. CANTAB.,
LATE SENIOR ASSISTANT MEDICAL OFFICER OF THE HOSPITAL SHIPS.

IN THE LANCET of Jan. 4th there appeared an interesting communication from Dr. Frank Robinson on a case of small-pox in which hæmorrhagic symptoms developed. The patient was extremely ill, but after a short illness rapidly recovered. The question was raised whether the unusual course of the illness could be explained on the hypothesis that the case was an example of hæmorrhagic small-pox modified by vaccination. From time to time cases of small-pox occur in which the primary illness is unusually severe, and certain symptoms suggestive of the hæmorrhagic variety of the disease are present, yet not infrequently they have a favourable issue. In such cases as we refer to there are no definite signs of hæmorrhage, or if hæmorrhage occurs it is merely in the form of diapedesis in the inflammatory areolæ of the pocks, of a staining of the bases of some of the vesicles, of a few scattered petechiæ in the skin, of some hæmorrhage into the conjunctiva, or of an unusually well-marked petechial prodromal rash over the flexor surface of the trunk. The existence of any of these symptoms does not *per se* imply that a case is of the hæmorrhagic variety, or even necessarily indicate an unfavourable prognosis. Although in such cases the papular rash may be extremely profuse and there may be a fatal issue, on the other hand, the rash may be scanty and convalescence rapid. Between cases presenting such slight signs of hæmorrhage and cases of undoubted and rapidly fatal hæmorrhagic small-pox, according to our experience, no hard-and-fast line can be drawn. This being so, as might be expected, cases occur as to which it is extremely difficult to say whether they would

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be more accurately described as cases of hæmorrhagic small-pox or not. Such cases as these usually prove fatal, and then the question is purely an academic one. Sometimes they recover, and one is inclined to look on any slight evidence of hæmorrhage as accidental; but in rare cases the signs of hæmorrhage are very well marked, and yet recovery takes place.

Such a case was that of a man who came under the care of one of us on the fourth day after he was taken ill. He was twenty-one years of age, had been vaccinated in infancy, and had six large vaccination scars. There was present when he came under observation a fairly plentiful, discrete, papular small-pox rash. He had profuse hæmaturia, vomited some slightly blood-stained material, and there was oozing of blood from the gums. He was greatly prostrated and his mental faculties were in partial abeyance. The lower part of the abdomen was covered by a profuse erythematous and petechial rash, which also extended across the back. Although the condition of the patient appeared to be so grave, the facies and general appearance of the patient differed from that usually present in cases of hæmorrhagic small-pox, and a cautious prognosis was given. In the course of two or three days all signs of hæmorrhage disappeared, and the man rapidly recovered, there being no secondary fever. No albumin was afterwards found in the urine. There was never any other sign of nephritis, and there was no history of the patient having previously suffered from hæmaturia. An attack of nephritis occurring in the course of a case of small-pox is extremely rare, and we have never known it to occur at such an early stage of the disease.

It will be seen that this case is very similar to that described by Dr. Robinson. It is suggestive that both patients were vaccinated, and that in neither case was the papular rash abundant. Although it would not be accurate to say that in all cases of hæmorrhagic small-pox the papular rash when it occurs is abundant, such is undoubtedly the case in general. We doubt, however, whether the explanation Dr. Robinson offers is the true one, but we are not prepared to discuss the difficult question whether or to what extent vaccination has the effect of altering the course of events in cases of hæmorrhagic small-pox.

Hospital Ships, near Dartford.

CASE OF CHRONIC TETANUS TREATED BY TIZZONI'S ANTITOXIN; RECOVERY.

BY H. EUGENE TRACEY, M.B., L.R.C.P. LOND., M.R.C.S. ENG.

ON Nov. 16th, 1894, I was summoned to see a girl aged seven years who was supposed to have "something wrong with her face." I ascertained that a fortnight previously she had sustained two slight burns, one on the forehead and the other on the left leg, the scars of which were still visible. On Nov. 14th it had been noticed that the child could not fully open the left eye and that she appeared to be smiling continually. On examination I found tonic spasm of the orbicular muscle of the left eye, which was marked enough almost to bring the eyelids together; well-developed risus sardonicus, more marked on the left side of the face; rigidity of the muscles of the neck, back, legs, and abdomen, producing extension of the head, and moderate opisthotonos. The patient could separate her teeth for almost half an inch, could swallow small quantities of liquid, and speak indistinctly. The temperature was normal. I prescribed bromide of potassium (ten grains every four hours) and absolute rest and quiet. On Nov. 17th the patient had a severe spasm in which the chest was fixed and the face black, the temperature rising to 99·8°F. On the 18th another convulsion had occurred during the night, and one also occurred in the afternoon. The temperature was 99°. In the evening I administered hypodermically one-eighth of a grain of sulphate of morphia as she refused to take medicine by the mouth. On the 19th she had been taking very little nourishment. This induced me to try to pass a soft red rubber tube by the nose for feeding purposes, but as this attempt immediately produced a convulsion I had to desist. In this convulsion the body was held rigid, the face was contorted and livid, and the respiration was suspended. I succeeded in giving a nutrient enema of milk treated with Fairchild's powder, which was retained, and during the day I administered hypodermically two tabloids, each containing one-eighth of a grain of sulphate of morphia. On the 20th the patient had been taking more nourishment during the night, but during the day she was not so well, having had two serious convulsions. On the 21st, at 6 A.M., I was summoned, as the patient had had two further convulsions. I administered a quarter of a grain of sulphate of morphia. At 5 P.M. she had another convulsion, and at 8 P.M. yet another, owing to changing the draw-sheet. I then administered the first dose of Professor Tizzoni's antitoxin (obtained from Messrs. Allen and Hanburys), injecting one and one-eighth of a gramme under the skin on the inner side of the thigh, using a syringe kindly lent to me by the British Institute of Preventive Medicine. On the 22nd, at 8 A.M., I was again summoned, and found that the patient had had nine convulsions during the night, recurring (according to the attendant's statement) at almost exact intervals of one hour. I witnessed a fit myself, the pulse being 80 before and 150 afterwards. I injected a second and similar dose of antitoxin. The child was somewhat delirious after this injection, and continued to have fits all day at intervals of from five to ten minutes. I was sent for again at 5 P.M., and the patient had a fit just after my arrival. By holding her hand and speaking soothingly to her when the clonic spasms were beginning to spread over the muscular system I succeeded in so far modifying their severity that there was no recurrence of the lividity of the face, foaming at the mouth, or rigidity of the chest walls. The temperature was 100·8° and the pulse 116. Before leaving I succeeded for the first time in moving the child on to a sofa in order to have the saturated bed linen changed. I again injected one-eighth of a grain of sulphate of morphia, but administered no antitoxin. On the 23rd, at 11 A.M., the pulse was 112 and the temperature 102·5°. No fits had occurred during the night, but frequent clonic spasms. At 5.30 P.M. the pulse was 80 and the temperature 100·5°. No recurrence of fits supervened. I injected five-sixteenths of a gramme of antitoxin. On the 24th the pulse was 68 and the temperature 98·6°. Frequent clonic spasms were occurring. I administered one-eighth of a grain of sulphate of morphia. At 8.30 P.M. I administered five-sixteenths of a gramme of antitoxin. On the 25th, at 10 A.M., the clonic spasms were of frequent occurrence. From 8 to 10 P.M. they recurred every quarter of an hour. I injected the sulphate of morphia as before, and five-sixteenths of a gramme of antitoxin. From the 26th to the 30th, the supply of antitoxin being exhausted, the treatment resolved itself into the daily injection of morphia and atropine, but the child made little or no progress. On Dec. 1st, having obtained another bottle of antitoxin, I recommenced the daily injections, administering five-sixteenths of a gramme every evening for a period of seven days. Meanwhile the condition of the patient improved rapidly, the clonic spasms diminishing both in force and frequency and some relaxation of the tonic contractions of the muscles taking place, specially of those of the neck, jaws, and face generally. At the end of the week the improvement was so marked that I ceased to inject either antitoxin or sulphate of morphia. Recovery was completed without further incident, the rigidity of the muscles disappearing some days after she had ceased to be troubled with clonic contractions.

Apparently in this case the most noteworthy feature of the action of the antitoxin beyond its general beneficial and curative effect was the strong reaction the first large subcutaneous injection caused, the pulse and temperature of the patient rising and the fits being temporarily increased both in virulence and frequency.

Willand, Cullompton, Devon.

MISSION TO THE DEEP SEA FISHERMEN.—Mr. F. W. Willway, M.R.C.S., a Bristolian, who has recently returned from Labrador after spending eighteen months in medical mission work there, gave an interesting lecture in Bristol last week, narrating some of the difficulties and hardships of the work. He described the coast journeys in the mission vessel in these dangerous waters, and his itinerary mission journey of last winter, when with sledge and dogs he covered 1200 miles.

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UNILATERAL ORCHOTOMY FOR ENLARGEMENT OF THE PROSTATE.

BY C. W. MANSELL MOULLIN, M.D. OXON., F.R.C.S. ENG.,
SURGEON TO THE LONDON HOSPITAL, EXAMINER IN SURGERY AT THE UNIVERSITY OF OXFORD, ETC.

I HAVE recently had occasion to remove the median lobe of the prostate from a patient nearly sixty years of age who was to all intents and purposes a monorchid. Shortly after birth the left testis had been subjected to a proceeding similar to bistourage at the hands of an attendant and, as a consequence, it had wasted away. The cord could be traced a short distance down from the external ring, but there was no sign of testis or of epididymis. The symptoms for which the patient consulted me were characteristic of median valvular enlargement of the prostate. The residual urine amounted to ten or twelve ounces in spite of the fact that the bladder retained a fair amount of muscular power. So long as the patient was lying down and made no particular effort micturition was easy. If, however, he stood upright, and especially if any vigour was thrown into the attempt, the stream of urine stopped abruptly. Examination by the rectum showed but little change in the apparent size and relations of the prostate. The prostatic portion of the urethra was, however, more than two inches in length, and a metal catheter could not be passed without depressing the handle to a very considerable extent. A median incision was made into the urethra through the perineum, and the diagnosis confirmed by digital exploration. There was a pedunculated median outgrowth, nearly the size of a pigeon's egg, hanging in the orifice of the bladder and acting like a ball-valve. The lateral lobes were but little enlarged and were practically equal in size.

This case is of much interest in connexion with the question of the treatment of overgrowth of the prostate by unilateral orchotomy. It shows definitely that the removal of one testis, even in early infancy, will not prevent obstructive enlargement of the prostate later in life. It is to be noted, however (and the fact may prove to be of some importance), that the removal was effected subcutaneously by absorption, and that the cord was not divided high up and ligatured as in the operation of castration. The results, so far as the prostate is concerned, of removal of the testis alone and of removal of the testis and a great part of the cord by operation may be identical, but though it is usually done this should not be assumed without further evidence. The improvement that has taken place in some of the cases in which unilateral orchotomy has been performed is probably to be explained by the differences in the development and growth of the prostate in different individuals. In man the prostate is in its inception essentially a double organ, as it is in many of the lower animals. In them it is developed in connexion with the vasa deferentia, and the two sides remain more or less distinct. In man the seat of origin, like that of the ureters, is displaced until the gland tubules appear to be connected with the urethra rather than with the ejaculatory ducts; and the two halves approach each other until, like the uterus in the opposite sex, they fuse together. The degree to which this fusion takes place—and it varies very much in different people—is in all probability a measure of the extent to which each testis controls the whole gland. In patients in whom the enlargement is confined strictly to the lateral lobes the unilateral operation may succeed. In those, on the other hand, in whom there is a median outgrowth it can be of little use. From this it follows: (1) that much more accurate diagnosis of the particular kind of enlargement is required before the unilateral operation can be condemned—unfortunately, in the cases that have been published, successful and unsuccessful alike, only the vaguest details have been given; and (2) that experiments with the view of determining this point, performed upon animals, in which the fusion is less complete than it is in man, are of no use, for the conditions are not the same.

Wimpole-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF "PHONIC SPASM" SUCCESSFULLY TREATED BY ELECTRICITY.

BY RONALD A. D. DANIEL, M.B. DURH.,
LATE ASSISTANT PHYSICIAN TO THE INFIRMARY FOR DISEASES OF THE CHEST AND THROAT, MARGARET-STREET, CAVENDISH-SQUARE, W.

THE above condition being of somewhat rare occurrence, and the treatment most often unsatisfactory, a few notes of a case which has come under my care may be of some interest. The patient was twenty-eight years of age and had suffered from the complaint in question for over a year. It had come on gradually and was at first only apparent when he spoke publicly under exciting or nervous conditions. From this, however, it became more and more common, till at last any duties involving public speaking became most difficult. In ordinary conversation it was only occasionally noticeable, while singing could be performed without inconvenience. The patient described the effort to speak as being most distressing, as, though articulation proceeded, he was unable to produce any sound for an interval varying from one to two minutes. A careful examination with the laryngoscope revealed no abnormality of any kind, and his general condition was all that could be desired. He had been under medical treatment and tried various remedies, without, however, any, or but a little temporary, improvement. Under such circumstances I decided to call in the aid of electricity, and to this end used the constant current for from fifteen to twenty minutes every day for a fortnight, after which time, as progress was favourable, I reduced it to three times weekly. I employed sponge electrodes of such a size and shape as could conveniently be placed on either side of the larynx, and also varied the treatment on each occasion by directing the current antero-posteriorly, placing the anodal electrode over the larynx and the kathodal one on the back of the neck. The strength of the current used varied from two to three milliampères, and the case was treated for nearly six weeks, improvement becoming more and more apparent. It ended happily in the disappearance of the patient's malady, of which two months afterwards there had been no return.

Remarks.—This condition has been mentioned by Prosser James as "stammering of the vocal cords," a term which I think very aptly describes its distinctive features, for one must at once notice the striking analogy existing between it and an ordinary case of "nervous" stammering. In both there is the increased tendency when excitement or emotion comes into play, or where the subject attempts the process of public speaking, whereas in such efforts as singing a similarity exists in the disappearance of the trouble. Again, in the case mentioned above the patient was always for the time relieved by taking alcohol, but seemed worse after much smoking, mental worry, or marital intercourse, a condition of things which I have invariably found to apply in the case of stammerers. Furthermore, both disturbances would have a common effect in making the sufferer intolerant of society and unfit him for certain forms of occupation. With regard to electricity as a remedial agent, I have noticed some correspondence in THE LANCET as to the relative efficacy of different modes of application. It seems to me, however, that it is impossible to lay down any hard-and-fast rule in its employment, for where such points as sex, age, and susceptibility so powerfully obtain cases are best treated on their respective merits. In neuralgic and other appropriate conditions I frequently obtain the best of results from the constant current applied as indicated above, the only drawback, of course, being the tendency to irritation of the skin. This, however, varies very much in different individuals and must be obviated by changing the position of the electrodes or reducing the current. In order to obtain beneficial results the main point is, I should say, for the practitioner to apply the agent himself or see that it is done by a competent

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person, and not relegated, as is too often the case, to the fanciful manipulation of the patient.

St. Charles-square, W.

NOTES ON TWO CASES OF TETANUS; RECOVERY.

By EDGAR SWINDELLS, L.R.C.P. LOND., M.R.C.S. ENG.

RECOVERY from tetanus is so extremely rare—the mortality being, I believe, about 90 per cent.—that I have thought it worth while to record the two following cases. Both demonstrate the value of chloral hydrate in this condition.

CASE 1.—The patient was a lad sixteen years of age. Three months before the date of the attack, whilst engaged in his duty—viz., that of attending to horses—he received an injury from a horse treading on the left foot. No notice was taken of it beyond the administration of domestic remedies. Ever since the accident the patient's mother noticed that he seemed to have difficulty in swallowing. He also complained of a "stiff neck." On the evening of Wednesday, June 12th, 1895, I received an urgent summons to see the patient. I found him lying in bed with strong tetanic contractions affecting all the muscles of the body. There were marked opisthotonos and risus sardonicus. The muscles of the neck were firmly contracted and felt as hard as iron (the patient was a powerfully-built young fellow). The masseters were also firmly contracted. The jaws were completely and firmly closed, and the tongue could not be protruded. The bowels were confined. The patient complained of pain and stiffness of the neck and down the spine. On making a thorough examination to ascertain the cause I found an ecchymosis under the nail of the left big toe. There was no other mark of injury all over the body. I at once ordered the patient to be kept perfectly quiet, the room to be darkened, and liquid nourishment to be given at frequently repeated intervals. I prescribed ten grains of chloral hydrate every two hours. On the 13th I found the patient sitting up in bed. He stated that he could not lie down voluntarily; when he tried to do so he fell back. He said he felt better. There had been no more convulsions of the muscles of the back. There were still the risus sardonicus, trismus, and pain and stiffness of the neck. The head was kept bent forward, the eyes looking straight in front; he was unable to turn his head to either side. On the 14th there had been a return of the tetanic contractions of the muscles of the back since the day preceding. On the 15th the patient said he felt better. There had been no return of the opisthotonos. On July 7th the risus sardonicus had quite disappeared, as also the trismus, though there were still considerable pain and stiffness of the neck. The patient was allowed to sit up a little time. On the 17th the pain and stiffness of the neck had quite disappeared. The patient is now walking about feeling as well as ever.

CASE 2.—About three years ago I attended a little girl aged ten years who was suffering from well-marked tetanic symptoms. The condition in this case was idiopathic in origin. There was no history of injury, and no sign of wound or bruise of any kind. I gave her five grains of chloral hydrate every two hours. On the fourteenth day, as the tetanic symptoms had all disappeared, I stopped the chloral, when the symptoms immediately returned with increased severity. On renewed and continued exhibition of the drug they all disappeared again, and the patient completely recovered in six weeks from the date of the first appearance of the symptoms.

Besides these two successful cases I have also had a fatal one. The patient was a young man aged twenty-two years in whom the symptoms supervened upon an injury to the leg received at football.

Barking, Essex.

ORMSKIRK COTTAGE HOSPITAL.—The newly erected Cottage Hospital at Ormskirk was formally opened by the Countess of Derby on Jan. 22nd. It stands on a piece of land between two and three acres in extent, presented by the Earl of Derby, and consists of three pavilions connected by a corridor 55 ft. long. The central block contains an operating room, bathroom, and a ward for two beds, while at either end of the corridor there is a ward for three beds. The treasurer said that the hospital, including all the internal fittings and arrangements, cost between £1100 and £1150.

A Mirror
OF
HOSPITAL PRACTICE
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

WESTMINSTER HOSPITAL.

CASE OF ADDISON'S DISEASE TREATED UNSUCCESSFULLY WITH SUPRARENAL CAPSULES.

(Under the care of Dr. W. MURRELL.)

THE treatment of Addison's disease by the administration of the suprarenal capsules of some animal, such as the sheep, has not been extensively tried as yet, but the results obtained so far are not at all encouraging. This case was mentioned as an example of unsuccessful treatment by Dr. Parkinson at a recent meeting of the Clinical Society during a discussion on a paper by Dr. Ringer and Dr. Phear. Dr. Ringer gave a summary of recorded cases where similar treatment had been tried; out of nine, five patients had shown improvement, but it could not be said that a sufficient time had elapsed to determine whether the benefit was permanent or not. In two cases no improvement was noted, in one a limited trial of the treatment was given, and in another death followed. Dr. Turney, at the same meeting, referred to another case in which this treatment received a fair trial, but without definite result. Cases of Addison's disease often improve although no treatment is given, so that it is difficult to say that any temporary improvement when the capsules are given is in reality due to them. In this case a most careful trial of the method was carried out, and it is probable that improvement would have resulted had there been any specific action in the capsules which were administered.

A man aged thirty-one years was admitted into Bouverie Ward, Westminster Hospital, on Nov. 15th, 1895, suffering from Addison's disease. Two of the patient's uncles on the mother's side died from phthisis, but apart from this there was no history of that disease. He had always been well fed and had never been much exposed to cold or wet. He fell from a ladder a distance of about fifteen feet, in October, 1894, but was not hurt and experienced no inconvenience from it. He had never been laid up and always led a comfortable and fairly easy life. About the beginning of August he noticed that his skin was beginning to grow yellow, but for some weeks before this he had been feeling unwell and had been depressed in spirits. A week later he had a severe attack of vomiting, which lasted for a couple of days and was followed soon after by another attack of shorter duration. On admission to hospital he was found to be very weak and was distinctly emaciated. He weighed 8 st. 13 lb. and stated that before his illness he had weighed 11 st. He was curiously apathetic and showed but little disposition either for conversation or exertion. The whole body presented an olive or greenish-brown colour, the pigmentation being very marked on the face, hands, abdomen, and in the regions of the axillæ and scrotum. There were two well-marked patches on the mucous membrane of the mouth, one on either side. His appetite was fair, but not so good, he said, as it was formerly. There was no cough, and an examination of the chest showed nothing abnormal with the exception of a little increased resonance over the front of both lungs. The bowels were regular and there was no albumin or sugar in the urine. He was kept under observation and without active treatment for ten days. During that time he had only one attack of vomiting. He lost 4 lb. in weight, and in the evening his temperature varied from 99·6° to 100° F. On the 26th he was ordered tabloids of extract of suprarenal capsule, one three times a day, each tabloid representing five grains of the fresh extract. This treatment was continued for three weeks, and during that time he took sixty tabloids. He suffered a great deal from nausea, and had three bad attacks of vomiting. He lost 3 lb. in weight, and there was a distinct increase in the amount of pigmentation. It was thought that possibly the dose might be insufficient, and four tabloids three times a day were ordered, but they so

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distinctly increased the patient's discomfort that treatment in this form was reluctantly abandoned. On Dec. 17th arrangements were made for giving the patient the fresh suprarenal capsules of sheep. Mr. Copeland, the house physician, obtained the coöperation of a friendly butcher, who placed at his disposal as many animals as were required. The sheep were slaughtered in Mr. Copeland's presence, and the adrenals were immediately removed by him and brought absolutely fresh to the hospital. The initial dose was a drachm, finely minced and administered on bread and butter, a little pepper and salt being added to improve the flavour. The first dose was given on the 18th at 10 A.M., and the patient almost immediately complained of nausea and vomited slightly. This was followed an hour later by a severe attack of vomiting. The pulse had been weak throughout, and no rise of arterial tension was noted. At 4 P.M. a second dose of a drachm was given, and this, too, was followed by vomiting. On the 19th at 4.30 P.M.—that is, after an interval of twenty-four hours—a dose of half a drachm was given, a little brown sugar being substituted for the pepper and salt for flavouring purposes. This was followed in forty-five minutes by a severe attack of vomiting, and the patient complained of nausea, which persisted the greater part of the night. On the 20th the dose was reduced to fifteen grains, and this was given three times a day until Jan. 1st, 1896. As it was thought that possibly there might be some difference in action in the adrenals of different animals a calf was sometimes substituted for the sheep, but with no better result. The patient had several severe attacks of vomiting, rapidly lost weight and strength, and became much more listless. The pigmentation deepened in colour, and as the patient's condition was extremely critical no further attempt was made to push the treatment. He gradually sank and died on Jan. 6th, after having been fifty-three days in the hospital.

Necropsy.—At the post-mortem examination (which was made by Dr. Hebb) it was found that the adrenals were much enlarged and were represented by fibro-caseous masses. The right weighed rather more than ¾ oz. and the left a little under 1 oz. Cover-glass preparations from the juice of the capsules showed a small number of micro-organisms giving the specific colour reaction of tubercle bacilli, and although some had the characteristic shape and appearance, most of them were shorter and thicker than usual. There were some ovoid skein-like collections. The left semilunar ganglion was swollen and twice the size of the right. It was grey in colour and shining. The lungs presented a few caseous masses; the pancreas was atrophied and the kidneys were normal. Nothing was detected in the brain.

TORBAY HOSPITAL, TORQUAY.

NOTES ON THE RADICAL CURE OF VARICOCELE.

(Under the care of Mr. A. E. WATSON.)

FOR the notes of the cases we are indebted to Mr. A. E. Watson, under whose care they were; he states that he was under an obligation to Mr. Thos. Finch, jun., senior surgeon to the hospital, for permission to operate on and record them.

In the following twenty-one cases of radical cure of varicocele the patients were healthy, well-developed youths of an average age of sixteen and a half years, and were operated upon to enable them to join the army or navy, having previously been refused because they were subject to varicocele. The varicocele was in every case on the left side, but in Case 13 (see Table) there was also a small varicocele on the right side, which was likewise operated upon. The detail of the operation is the same in all cases, with slight modifications. The patient is given an aperient the night before the operation, and on the morning of the operation the pubes and scrotum are carefully shaved, and the skin is well washed with soap and water, and afterwards with carbolic lotion (1 in 80) or perchloride of mercury lotion (1 in 2000). The patient is anæsthetised with chloroform, and before operating the parts are again washed with the above lotions. An incision varying from an inch to an inch and a half is made through the skin of the scrotum, about half an inch from the external abdominal ring, this incision is usually made by transfixing a transverse fold of the scrotum and cutting through it. The cord is then drawn out of the wound and the fascia carefully divided until the enlarged veins can be seen through it, the general sheath immediately surrounding the veins not being opened. The cord is then grasped between the index-finger and thumb of the left hand; the vas deferens is felt for and carefully kept out of the way. A long curved needle, threaded with stout carbolised catgut, is now passed (at the lower angle of the wound) between the bundle of veins and the vas deferens, and another ligature is passed in the same manner at the upper angle of the wound. Before tying these ligatures the position of the vas deferens is noticed. The lower ligature is then tied firmly, and then the upper, and the portion of ligatured veins between the two ligatures is cut out with a pair of scissors, so as to leave a short, free portion beyond the ligatures. In the first fifteen cases the cut ends of the veins were left and not sutured together; in the last six the divided ends of the veins were brought together with a ligature, following the plan first advocated by Mr. W. H. Bennett. In Cases 15 and 21 this was done by passing a small ligature through the centre of the divided ends of the stump, which were then brought into accurate apposition. In the other four cases a fresh ligature was not passed through the divided end of each stump, but the original ligatures used to tie the veins were not divided, but left rather long, so that the ends of the upper ligature could be tied to the ends of the lower and the divided ends of the veins be thus brought together. This method does not at first sight seem to be so careful or accurate as the first method of suturing the ends together, but it was found that with care the two ends could be brought together and the results were good, the cord uniting just as readily in these cases as in the others. After ligaturing the ends of the veins the wound is carefully examined, and all bleeding points are carefully secured. In one case, although there was no bleeding before suturing the scrotum, free hæmorrhage from the wound suddenly occurred as the dressings were being applied. The wound was reopened, and the hæmorrhage was found to proceed from a vein which had not been included in the ligatures; this was ligatured and divided, and the patient made a good recovery. After dusting iodoform over the wound a dressing of mercurial wool, white wool, and gauze is applied. The dressing is cut in the form of a square, and one angle of the square cut out; this is fastened round the penis by means of a safety-pin, a T-bandage is applied, and the scrotum is well supported. A small triangular pad is put between the patient's thighs on his getting back to bed, and this helps to support the scrotum. The patients are kept in bed for three weeks from the time of operation, and after that time, if all goes well, are allowed to get up, but are told to wear a suspensory bandage for two or three months. No drainage-tube is used for the wound. The first dressing is usually performed three days after the operation, and if everything is going on well the second dressing is made in another five or six days. In most cases there was œdema of the scrotum for a week or fortnight after the operation; but this was not troublesome and soon passed off. The testicle on the side of operation was generally somewhat enlarged and tender for about the first week, but this soon subsided. In only one case did any trouble occur—viz., in Case 15. The temperature rose to 101·8° F. eight days after the operation, and there was slight suppuration of the wound. The testicle became enlarged, painful, and very tender. This delayed convalescence somewhat, and the patient left the hospital with some enlargement of the testicle, but with no pain or tenderness; he was subsequently refused admission into the navy on this account. In Cases 12 and 13 the tunica vaginalis was opened by accident; the opening was ligatured in Case 12, but not in Case 13. Both cases did well. In all cases Mr. W. H. Bennett's plan was adopted. The general sheath surrounding the veins was not opened, and all the affected veins were included in the ligature. By this means all the affected veins are ligatured, as none of them ever lie outside the fascia. This is contrary to Mr. W. H. A. Jacobson's advice. He states[1] "that, although in practised hands the results may be good, he does not think it advisable to recommend this method," and mentions one case at least where, having operated upon a large varicocele, and although leaving an apparently large number of veins behind, the wound opened and a gangrenous testicle appeared in it. When Mr. Watson first commenced the operation he had not seen any record of Mr. Bennett's or Mr. Jacobson's cases, and the plan he then adopted of tying all the veins without opening the fascia covering them was followed all through with no bad result. In some recorded

[1] Diseases of Male Organs of Generation.

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cases of varicocele the testicle on the operated side is stated to have been wasted; this was noticed in Case 21, where the varicocele was a large one, but the left testicle was only slightly wasted. None of the patients complained of neuralgic pains &c.; in fact, few of them knew there was anything wrong before being told by the medical officer examining them for admission into the navy. The shortening of the cord, by bringing into apposition the two ends of the stumps, must be of great use, but this was unfortunately not performed in the first operations. In the last case operated upon, Mr. C. B. Lockwood's plan of keeping the dressing in position by applying a triangular piece of jaconette over the dressing, with two strips of bandage sewn to the apex and one strip of bandage at each of the other angles, as well as an aperture near the base of the jaconette for the penis to pass through, was adopted. The bands from the apex pass round the thighs and are fastened to the other bands which pass round the pelvis. An engraving (from a photograph) of this outside dressing is to be found in THE LANCET of Oct. 19th, 1895, illustrating Mr. Lockwood's method of dressing such cases. It was found more useful than the ordinary T-bandage mode of dressing used in the other cases and is no doubt more comfortable to the patient and need not be removed when his bowels are opened. The ligature and excision of a short length of the veins seems to be the only reliable method to prevent recurrence, and the slipping or absorption of a ligature may easily lead to renewed varicocele if the veins have not been divided. The disadvantage of the subcutaneous method is at once shown, and if proper antiseptic precautions are taken and the wound is kept sweet antiseptic excision seems to be a safe and reliable method of cure.

List of Operations for Radical Cure of the Varicocele.

No. of case.	Age.	Number of days in hospital.	Side.
1	16	22	Left
2	19	21	,,
3	16	23	,,
4	17	31	,,
5	15	29	,,
	15	27	,,
7	15	24	,,
8	15	34	,,
9	15	26	,,
10	17	23	,,
11	20	38	,,
12	16	25	,,
13	16	21	Left and right.
14	16	22	Left.
15	42	55	,,
16	15	25	,,
17	15	24	,,
18	15	23	,,
19	17	24	,,
20	16	51	,,
21	19	30	,,

REMARKS.—In Case 12 the tunica vaginalis was opened by accident; the opening was ligatured with catgut. In Case 13 there was also a small varicocele on the right side; the tunica vaginalis was opened on the right side; no ligature was passed round opening; the case did well. Case 14 was a small varicocele. Case 15 had slight suppuration of the wound; convalescence was retarded by this and by an attack of epididymitis; the temperature went up to 101° F. eight days after the operation, and the testicle was noticed to be swollen and tender; no cause could be found for this; the patient eventually left the hospital with slight swelling of the testicle, but no pain or tenderness. In Case 16 the veins were tied and divided, and the cut ends sutured together. In Case 17 the cut ends of the veins were tied together with the original ligature with which the veins were tied, so that no suture was passed through the divided portions on the free side of the ligature; this was also done in Cases 18 19, and 20. Case 18 was operated upon on Sept. 4th; the temperature the next night was 100°; the testicle was enlarged, painful, and tender; the temperature gradually fell and was normal on Nov. 9th. In Case 19 there was some hæmorrhage after the wound had been stitched, necessitating reopening and retying the veins in two different places; it was found that the veins had not been properly tied; this was rather a large varicocele. Case 20 was delayed in hospital. First, operation was not performed for some days after admission, and, secondly, there was troublesome suppuration about the stitches; the catgut ligature had to be removed. Case 21 presented a large varicocele about the size of a hen's egg; there was very slight diminution in size of the left testicle as compared to the right; there was slight suppuration about the stitches.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Non-Traumatic Ecchymoses.—The Exceptions to Colles' Law.

AN ordinary meeting of this society took place on Jan. 28th, Mr. HUTCHINSON, President, being in the chair.

Dr. H. A. LEDIARD (Carlisle) read a paper on Ecchymoses from Natural Causes, of which the following is an abstract. The subject embraced those modes of death called "asphyxial"—i.e., where one or other of the causes of interrupted respiration had caused death. Attention was also directed to various other conditions which in the living were also associated with ecchymosis upon or within nearly all the tissues of the body. It was contended that, although most writers alluded to the subject more or less briefly, the occurrence of such ecchymosis had not received the attention it merited, seeing that judicial error might arise from a misinterpretation of the appearances. Particular stress was laid upon ecchymosis of the mucous membrane of the genital organs in the female and its occurrence from natural causes, seeing that such ecchymosis might be mistaken for criminal violence. The conclusions submitted were: That it would be a circumstance calling for particular comment if the mucous membrane of the vagina could be shown to be free from extravasations of blood or punctiform ecchymosis in asphyxial conditions and asphyxial modes of death; that it was in the highest degree improbable that the vaginal mucous membrane did not share with the other tissues and organs of the body the same liability to ecchymosis; and that from its position in the body, delicacy of structure, and vascularity, the mucous membrane of the vagina and vulva would be the more likely to exhibit punctiform ecchymosis in the above-mentioned conditions.—The PRESIDENT complimented Dr. Lediard on his useful summary of opinions, which would prove of help to many engaged in practical medico-legal work. Those officially connected with asylums could probably furnish much information upon this head, for ecchymoses were common in the insane, and many suspicions of violence on the part of asylum attendants, based on the assumption that the ecchymoses were necessarily traumatic, had been no doubt unjustly entertained. He had a drawing of an elderly man who had contracted whooping-cough from his grandchild, and whose face became covered with large ecchymoses. These lesions were common in ophthalmic practice, and it was wise to remember the importance of diathetic conditions as predisposing causes, such as gout and advancing life.—Dr. LUFF said that medical jurists were indebted to Dr. Lediard for drawing attention to this subject, but he differed from him in some of the statements made in the paper. As a jurist he attached little diagnostic importance to sub-pleural ecchymoses *per se*. Tardieu thought that these were due to suffocation, but since then it had been shown that they might be due to many other causes. They occurred especially in connexion with death from poisons, such as the benzine derivatives, or from burns, or in the hæmorrhagic diathesis. He did not think that punctiform ecchymoses would be accepted by medical jurists as an indication of rape, for little short of laceration of the vulva or vagina, with the presence of spermatozoa, would be accepted as satisfactory evidence. As to the cause of ecchymoses of the skin apart from violence he had given a list of them in his work on forensic medicine.—Dr. LEDIARD, in reply, pleaded guilty to omitting to consult Dr. Luff's book. He held that vaginal or vulval punctiform ecchymosis might certainly suggest rape, and so lead to the building up of an opinion which might turn out to be erroneous.

Dr. GEORGE OGILVIE read a paper on the Exceptions to Colles' Law. He said that the number of cases published as exceptions to Colles' law was about twenty. They differed in conclusiveness. He laid down the conditions which had to be fulfilled in order to establish an undoubted case of this kind. Such cases existed. Two of them were selected and given—one because it was imperfectly known and the other because it had been overlooked altogether. Cases of this kind must be rare, even if the fact which they taught was not of exceptional occurrence. Other recognised facts in the teaching of syphilis did not rest on better evidence.

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The infection of a nurse, whether the mother or not, by a congenitally syphilitic child seemed to be rare altogether. On this point great diversity of opinion existed. The question could only be settled by a collective investigation extending over lying-in hospitals, children's and foundling hospitals, not by the experience of syphilographers. The practical and theoretical consequences of Colles' law were discussed. They broke down since the exceptions were established. The pendant to Colles' law, which was known abroad by the name of the law of Profeta, stood on an even weaker foundation. Healthy children born of syphilitic mothers were not necessarily immune against the mother's disease. The fact that the infectious disease of the mother did not imply infection of the child or immunity of the healthy child—although the disease appeared in the mother at the time of gestation, neither too early nor too late for transmission—was in accordance with our experience in diseases. If the immunity was extended beyond the child's or the mother's disease to the disease in general, the fallacy of the two so-called laws was further shown by those cases in which the mother of a congenitally syphilitic child contracts fresh syphilis shortly before or after delivery. Dr. Ogilvie concluded by laying before the society some questions which might be the basis of a collective investigation.—The PRESIDENT said that the profession were glad to hear those who boldly criticised and investigated accepted opinions. He, however, differed from Dr. Ogilvie in the sense in which the term "law" was to be accepted. We used the word "law" in medicine as the expression of a manifestation of force in any given direction, and it was sufficient if the observer proved that the force, if not interrupted, would proceed in the given direction. What he understood by Colles' law was this, that an infant, conceived by a mother and procreated by a syphilitic father, would exert such an influence on the mother as to render her susceptible of syphilis in a degree different from the normal—it conferred upon her an acquired immunity. Again, he thought that Dr. Ogilvie strained the meaning of the word "immune." Immunity was not absolute as applied in medicine, and this was as true of small-pox as of syphilis. The immunity from various causes might be undermined and destroyed; it was a *relative* and not an *absolute* property. One attack of syphilis did not absolutely protect against a second, and patients sometimes had second attacks shortly after the first. He had seen a second attack occur within one year, but this did not disturb his belief in the truth of the law that one attack of syphilis protected against a second. His belief that the mother received something from the fœtus which rendered her different in her behaviour on exposure to the poison of syphilis was confirmed by the rarity of the exceptions; for, if Colles' law were not true, infection of the mother ought to be much more common. He had known of a fair number of cases of chancre on the nipples of those who, not being the actual mothers, had suckled syphilitic children; but he had not met with a single case in which a mother had become infected by nursing her syphilitic child. Individual experience of this negative kind was valuable, especially when it was borne out by clinicians like Fournier and others on the continent. The exposure of mothers to infection by their syphilitic children must be enormously common, and for this reason, if Colles' law were not true many cases of syphilis ought to be forthcoming from among the mothers. The question was whether our practice should be altered in view of the exceptions which undoubtedly occurred, for all writers on the subject had admitted the existence of exceptions, and these he would, on investigation, regard as second attacks of primary syphilis. He submitted that there was nothing new to induce us to alter our instructions to patients, but, on the contrary, we could assure them that for all practical purposes they were safe. From the child's point of view it was a pity to deny to them the additional chance of life that was given them by maternal nursing.—Dr. SAVILL said that Dr. Ogilvie had referred to the parallel to be drawn between small-pox and syphilis. It had appeared to him that the contraction of small-pox by the mother during gestation did confer some kind of immunity on the fœtus afterwards, and he referred to four instances to illustrate this. A girl developed small-pox on Feb. 5th, she was confined on the 6th, and the child was vaccinated on the 7th. The child when vaccinated at first did not take, but later vaccination was successful. A woman developed small pox in the fifth month of gestation. She was confined at term. The child was vaccinated at four different times, but proved refractory. A woman contracted small-pox at the sixth month of pregnancy. Twins were born at term; they were vaccinated three times, and each was unsuccessful. A woman contracted small-pox at the seventh month of pregnancy. The child was vaccinated on two occasions with negative result, but the third time it took slightly. This child was born in an overcrowded small-pox hospital, but, nevertheless, failed to contract the disease. These instances went, so far as analogy was concerned, to support the converse of Colles' law. Dr. Ogilvie had established the occurrence of exceptional instances, and a few such instances sufficed to invalidate the application of the law in every-day practice. *Primâ facie* grounds had certainly been established for making an investigation into the subject.—Mr. COTTERELL argued against both the leading cases relied on by Dr. Ogilvie being accepted as indubitable infractions of Colles' law. In one the father had been free eleven years from syphilis, and yet was supposed to have given syphilis to his unborn child. In the other case there was evidence that the child had pemphigus which was said to be syphilitic; but syphilitic pemphigus rarely developed later than the first week after birth. Pemphigus, again, usually meant severe poisoning by syphilis, and yet the lesions in the child cleared up in ten days although the mother only was treated. He held that in these two cases there was no reliable evidence that the mothers were infected by their children.—Dr. LEES said that he had never yet seen a contradiction to Colles' law. Once he had seen a child (suffering from what was at the time believed to be inherited syphilis) give syphilis to the mother's breast, and the baby gave a chancre also to a sister who kissed it. He came later to the conclusion that the child was suffering from primary acquired syphilis, and in this conclusion Mr. Hutchinson had concurred. The exceptions to the law, he thought, were to be explained by a rapid failure of immunity, and he thought that it would be a great mistake to alter the rule at present adopted because of the importance to the child of the mother's milk.—Dr. COLCOTT FOX said that he had never come across an exception to Colles' law. In one case in which the father was syphilitic but the mother had never had a symptom twelve children were afterwards born and all of them had signs of syphilis. Pemphigus might certainly occur at any time during the first few weeks. It was an important point that the mouth was very rarely involved in congenital syphilis, and this probably explained why the mother's breast was so rarely affected. A large number of women who presented evidences of tertiary syphilis in the legs gave no previous history or signs of syphilis, and this, he thought, showed that their syphilis had been mitigated by its reception through the placenta.—Dr. COUTTS said that he had inquired at the Shadwell Children's Hospital among his colleagues for evidence of infection by cases of congenital syphilis. Only three supposed instances of exception to Colles' law had been met with besides the doubtful case published by himself in THE LANCET two years ago.[1]—Mr. PARKER quoted passages from Colles' book to prove that the author himself regarded the law as one without exception. Among the poor met with at the East London Hospital for Children were a large number of mothers who suckled syphilitic children who were not their own, and yet he had never known a case in which such mothers or other children had become infected through a congenitally syphilitic child. He agreed with Dr. Fox that a congenitally syphilitic child's mouth was not usually affected.—Dr. OGILVIE, in reply, expressed his sorrow that he had not quite convinced the President of the truth of his views. The exceptions to Colles' law were by no means of recent date, for a little work published in 1557 contained an account of a child who first infected the wet-nurse and afterwards the mother. Only three copies of this book were, so far as he knew, extant, and he had pleasure in presenting one to the library of the society. In 1877 a surgeon had stated that not only had Colles' law no exceptions but that it was capable of a wider application, for mothers were immune not only against the congenital syphilis, but also against the acquired syphilis of their own children. He did not deny that immunity existed within certain limits, but it was by the exceptions that they should deal with this question, just as they did with the risk of vaccino-syphilis. The ideal aim was to exterminate the possibility of exceptions, and each single observation in this direction should be weighed and not counted.

[1] THE LANCET, June 9th, 1894.

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MEDICAL SOCIETY OF LONDON.

Some Difficulties of Diagnosis in Hepatic Disease.—Additional Cases of Hepatic Surgery.

AN ordinary meeting of this society was held on Jan. 27th, the President, Sir JAMES CRICHTON BROWNE, being in the chair.

Dr. LAUDER BRUNTON read a paper on Some Difficulties of Diagnosis in Hepatic Disease. He related the histories of the cases to illustrate his subject, as he held that a selection of cases would be more useful than the enunciation of general rules. Case 1, illustrating the occasional impossibility of an exact diagnosis, was that of a man aged forty-five years suffering from obstruction of the gall-duct and intense jaundice. The gall-bladder was opened, but three days afterwards the patient sank. On post-mortem examination the liver appeared to be normal to the eye and hand, but a small, round, hard mass about the size of a French bean could be felt in the gall-duct by pressing the finger upon it. It could also be felt by a probe passed into the duct from the duodenum and from the gall-bladder. But even with such manipulation it was impossible to say whether this lump was a gall-stone. On making a section through the liver the obstruction was found to be the small end of a mass of malignant disease nearly of the size and shape of a jargonelle pear. The only point here that might serve in diagnosis was great loss of energy by the patient. Case 2, in a man aged forty-five years, was one of small, hard liver with dyspepsia; the diagnosis of cirrhosis was made. The enlargement which afterwards occurred was at first thought to be congestion due to a chill. In three months the patient died of enormous malignant enlargement. The diagnostic points in the case were persistent eructation of sulphuretted hydrogen, foul-smelling stools, and the fact that the patient, though a free liver, always drank, not spirits, but wine, and that of the best quality. Cases 3 and 4 were instances of great hepatic enlargement in men aged forty-five and sixty years respectively. The probability of malignant disease was great, but under iodide of potassium both livers diminished. That of the younger man (Case 3) became normal, and that of the elder (Case 4) presented hard nodules, which on palpation greatly resembled cancer. That they were not was shown by their causing no symptoms. In Case 5 an elastic swelling was felt in the right iliac region of a woman. It was diagnosed as an enormously dilated gall-bladder, but on post-mortem examination was found to be a very long gall-bladder, with a correspondingly elongated right lobe of the liver. Case 6 was that of a man aged sixty years who had a chill nine months before and had been losing strength. Five months afterwards he had malarial fever. On examination a rounded swelling was felt in the epigastrium, reaching down to the umbilicus. It pulsated much in the epigastrium, but less below. It moved with respiration, and was diagnosed as abscess or gumma. A murmur was detected in it by another physician, who supposed it to be an aneurysm. Post mortem it was found to be a cerebriform malignant growth in the left lobe of the liver, the right being almost free, only a few small nodules of growth being present. Case 7 was that of a woman who had had jaundice and history of gall-stone a year before. A swelling extended from the ribs nearly to the umbilicus, and it could be pushed up behind the ribs. It was diagnosed as a floating kidney, and Mr. K. Thornton, who saw it, thought that it was not only floating, but affected with malignant disease and ought to be removed. It was found to be a gall-bladder with gall-stones. The diagnostic point was that it did not slip so easily up as a floating kidney would do, but required some pressure. In Case 8, that of a woman aged thirty-two years, there was pain below the ribs on the right side, shooting down towards the umbilicus, and pain in the right lumbar region. An oval mass was felt extending from the ribs to the umbilicus when the patient was recumbent, but it fell down to Poupart's ligament when she stood up, and slipped up under the ribs with pressure. When held down it did not seem to be drawn up by the liver during expiration. It was diagnosed as floating kidney. The patient died of peritonitis, and the kidneys were found healthy, the tumour being a gall-bladder with gall-stones. Ulceration had taken place opposite an impacted stone and had set up peritonitis. Case 9 presented a history of typhlitis. There had been no jaundice or symptoms of gall-stones. A tumour like a cricket ball was felt between the liver and the umbilicus. He was uncertain whether it was a cyst, encapsuled pus, or gall-bladder. On operation it was found to be a gall-bladder packed with large stones. The patient recovered. Case 10 was that of a man aged sixty years who had gall-stones six years previously. For the last three years he had constantly recurring attacks, relieved by lavage of the stomach. There was great loss of weight, with deep jaundice and emaciation. A projection which was felt was supposed to be a gall-bladder. Operation showed an empty gall-bladder and no stone, the supposed gall-bladder being omentum and pylorus adherent to the liver. The adhesions were broken down, and the patient recovered with a colour like that seen in Addison's disease, which disappeared on the administration of tincture of suprarenal capsule. Dr. Lauder Brunton concluded by saying that he hoped a study of these cases by others would enable them to avoid the mistakes into which he had fallen.

Mr. KNOWSLEY THORNTON then read a paper on Some Additional Cases of Hepatic Surgery. After a few introductory remarks with reference to suggestions made in previous communications to the society as to the importance of more accurate diagnosis, he gave notes of four cases of cholecystotomy, one case of choledochotomy, one case of hepatic abscess, and one of simple exploration. Case 1, which he related, was that of a woman past middle life whom he saw in 1893. She then had pain and swelling under the liver, which was thought to be either distended gall-bladder or malignant disease, probably the latter. She was emaciated; there was no record of hepatic colic, and a hard and tender lump could be felt. Later the swelling felt more like a distended gall-bladder and was cut down upon. Glairy mucus was evacuated and the cystic duct was found full of small sand-like calculi. The gall-bladder was stitched to the wound, which was drained, and the patient ultimately got well. Case 2 was a simple one of cholecystotomy and was now quite well. Case 3 Dr. Brunton had already referred to (*vide* Case 7, *supra*). He thought it was a renal case, for there was a line of clear percussion between the hepatic dulness and the renal tumour in most renal cases. This line of resonance was never present in gall-bladder cases unless the gut was adherent across the front of the gall-bladder. Case 4 was that of a woman sixty years of age who had good health until 1891, when she had a dry, brown tongue, with septic symptoms and jaundice. Fever was present, which lasted for three weeks, and jaundice lasted for two months. Afterwards she had several transient attacks of fever and jaundice, but the latter had become persistent in 1894 when he saw her. The case was diagnosed as one of impacted stone in the common duct, probably with deep-seated suppuration. On exploration the gall-bladder was found high up and the omentum adherent to it. A small angular stone was found in the hepatic duct and a larger stone was impacted in a dilated pouch of the common duct. He opened the common duct and took out a stone, closing it afterwards, although the closure was not perfect, for a flow of most offensive bile occurred from the drain-tube. The patient at first improved, but ultimately died with a recurrence of the rigors and fever on the eighteenth day. A limited necropsy failed to discover the cause of the high temperature. This case emphasised the wisdom of early operation in cases of impacted stone. Case 5 was that of a woman who, in July, 1892, became gradually jaundiced, the urine being deeply bile-stained and the stools of a fawn-colour. There was a large hard liver with a distended gall-bladder. Seven ounces of jelly-like fluid were extracted from the gall-bladder by aspiration, and much dark inspissated bile afterwards scooped out. The duct felt hard and like whipcord, but nothing was found in it. A biliary fistula was still discharging, and no bile entered the intestine. Case 6 he saw with Dr. Douglas Powell. The patient was attacked in June, 1893, with sudden severe pain at the lower margin of the liver; later there were similar attacks, which became frequent and severe. The gall-bladder was found to be distended and was aspirated, and much bile withdrawn. The gall-bladder was then opened and a small pouch found in the cystic duct with a minute, strictured opening leading backwards into the gall-bladder and forwards towards the common duct. He freely dilated these strictures and stitched the gall-bladder to the wound. The patient recovered and had since done well. Mr. Thornton then briefly tabulated all the cases brought before the society in this and four previous communications, and compared the results obtained with those of series of cases of renal, uterine, ovarian, and mammary surgery, and pointed to the lessons to be learnt

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from such comparative results, the chief one being the need of more perfect diagnosis, which would enable the surgeon to plan and think out beforehand the details of the operation, the result being fewer mistakes and omissions and a larger percentage of successful cases.

Mr. TREVES said that one could not help noticing three or four common facts running through these cases. Carcinoma was often found where some trouble of benign character was suspected, whereas the reverse was not often true—namely, that carcinoma was diagnosed, but the condition afterwards turned out to be of innocent nature. The loss of weight, loss of colour, and loss of strength so often associated with carcinoma were more common as associates with non-malignant liver cases than with cases of non-malignant disease of other organs. Even when the liver was exposed in the course of a laparotomy a diagnosis was sometimes not forthcoming, and he quoted a case to illustrate this. There were certain common text-book statements which were not correct—for instance, the fundus of an enlarged gall-bladder was not always rounded; it was sometimes pointed like a horn. Then, again, there might be bowel in front of the gall-bladder which was not adherent to it. Further, the gall-bladder in enlarging did not always travel along the orthodox text-book route, first downwards to the level of the umbilicus and then towards the left loin. Nor did the pain necessarily radiate upwards; it might be below the umbilicus or towards the other side. As to the bile itself, physiologists might regulate their statements as to its functions by reference to the experience of surgeons, for it did not necessarily keep the contents of the intestinal canal disinfected, or was it essential to digestion, or was its aperient action a requisite of the economy. Indeed, he thought that surgeons were beginning to take somewhat the view of the school board candidate in physiology, who, when asked to state what she knew of the source and functions of bile, said that it came from the stomach and was used for cleaning carpets. The escape of bile into the peritoneum was no longer regarded as a disaster, for normal bile had been shown to be sterile. Operations upon the liver were becoming the most common of abdominal sections. He had made a large incised wound into the liver without getting severe hæmorrhage, and it was an organ which would easily bear suture. He urged that there was no especial reason for removing an impacted stone from a duct, and if in the cystic duct and left to itself the stone would gradually work loose and come out of the wound or could be picked out of the open gall-bladder. In the pursuit of impacted stone all that the surgeon should do was to establish an opening leading down to it and then leave it alone. The iodoform gauze drain was the best, though it should not be kept in too long.

Dr. SANSOM quoted a case to show that occasionally a favourable result followed when carcinoma had been diagnosed. He referred to a point to aid in the diagnosis between cirrhosis and malignancy. Ordinarily the left lobe hepatic dulness and the cardiac dulness were coterminous, but in cirrhosis with shrinkage of the left hepatic lobe he had succeeded in demonstrating an area of resonance between the right border of cardiac dulness and the liver dulness.

Mr. SHEILD mentioned the case of a patient with obstructive jaundice, where the diagnosis lay between malignant disease and impacted stone. Exploration showed a distended gall-bladder and behind it cancer of the pancreas, and this was afterwards confirmed post mortem. There was much oozing of blood for a week after the operation. In a second case of obstructive jaundice in a man between thirty and forty years of age the diagnosis lay between syphilis and malignant disease, and after operation the nature of the case could not be clearly made out. Many dense inflammatory adhesions were torn through and lumps thought to be gummata were felt. The man was now emaciating, however, and appeared to be dying of malignant disease. In a third case a man was admitted with signs of intestinal perforation. The abdomen was opened and a ruptured hepatic hydatid found. The cyst was sewn to the abdominal wall. Later a second cyst suppurated and had to be opened, but the patient recovered.

Mr. TURNER referred to a case in which the gall-bladder was of the size and shape of a large banana, and coils of intestine, not adherent to it, lay over it. The cystic duct was dilated and some stones were removed from it, one being left in the duct. The patient got out of bed shortly after the operation and walked across the room; this induced fatal internal hæmorrhage, which at the necropsy was found to have proceeded from a small unnamed vessel. He had seen a second case perish from internal hæmorrhage from a very small vessel.

Dr. LAUDER BRUNTON, in reply, said that he could relate another case where the diagnosis was that of malignant disease, but post mortem hard masses of fibrous tissue were found in the liver; that case was still under pathological investigation.

Mr. THORNTON, in reply, said that it had never occurred to him to leave stones impacted in the ducts, and he thought that Mr. Treves had spoken too gravely of crushing or needling. A fine sewing needle passed through the duct wall would break up the stone sufficiently to allow it to pass, and if it were left impacted a fistula remained. The gauze packing was the greatest modern advance in abdominal surgery. The diagnosis between cancer and gumma on the operating table was a matter of great difficulty.

CLINICAL SOCIETY OF LONDON.

Excision of Temporo-maxillary Joints for Rheumatoid Arthritis.—Hystero-epilepsy with Dual Existence following Meningitis.—Myopathic Muscular Atrophy in an Adult.—Extensive Skin-grafting of Thigh and Leg.—Suppuration of the Left Shoulder-joint.—Traumatic Orbital Aneurysm.—Impaired Growth of Lower Epiphysis of Tibia consequent on a Sprain.—Pseudo-hypertrophic Paralysis in Three Brothers.

AN ordinary meeting of this society was held on Jan. 24th, Dr. BUZZARD, President, being in the chair. The meeting was devoted to the exhibition of clinical cases.

The PRESIDENT, before the regular work of the evening began, said it became them to perform a duty as loyal subjects of the Crown. He referred to the calamity that had overtaken the Royal Family, which was so recent and severe that there was no need to enlarge upon it. The members would feel keenly for those bereaved so suddenly and would desire to associate themselves with the members of the Royal Family in their grief. A vote of condolence was put from the chair and carried unanimously.

Mr. J. R. LUNN showed a case of Arthritis Deformans with Closure of the Jaw from Ankylosis of both Temporo-maxillary Articulations, which he had successfully treated by division of the necks of both condyles and removal of a wedged-shape piece of bone. The patient, a man aged forty-five years, was admitted into St. Marylebone Infirmary on July 17th, 1894. Twenty-five years ago he had rheumatic fever, and from that time most of his joints began to be affected, the knees being the first to become swollen. Two years later his jaw became stiff, and for the last twelve months he had been unable to separate his teeth at all or to take solid food. Both the patient's knees were swollen and distended with fluid; osteophytic outgrowths surrounded the joints, and most of the articulations in the body were affected with rheumatoid arthritis; his neck was stiff, and it could not be turned towards the right or the left. Both hip-joints were stiff, and the jaw could not be opened. The upper row of teeth overlapped the lower ones; the latter were loose. The patient stated he had lost flesh owing to the fact that he could not take solid or much liquid food without difficulty. He was very anxious for something to be done to enable him to open his mouth, as he felt he must die. On Aug. 18th the patient was put under chloroform, and great force was used to try to open his mouth, but without success. An incision two inches long was then made on the right side in a vertical direction a finger's breadth in front of the ear; after tying a few bleeding vessels bone was hit upon and was thought to be the neck of the condyle, but was the zygomatic process of the malar bone; the neck of the jaw was then divided, but there was no movement of the jaw after its division, so a wedge-shaped piece of bone was freely chiselled out and the wound was temporarily plugged. A similar process was gone through on the left side, with the exception that the incision on the latter was oblique instead of vertical; a considerable portion of the parotid gland was found overlaying the maxilla. The jaw was then forcibly opened by the screw-gag, so that the teeth were separated an inch; two teeth were accidentally forced out during the operation. Both wounds were closed and healed

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by primary union. A wooden gag was put between the teeth and was tied in the mouth to keep the teeth apart; the whole operation lasted nearly two hours.

Dr. ALBERT WILSON (Leytonstone) showed a girl aged twelve years who, in April, 1894, had severe Influenza, followed by Meningitis and Mania. After six weeks the cephalalgia disappeared and muscular symptoms developed, twitchings, opisthotonos, with lividity and coma. She had many fits a day. In June, 1895, the old symptoms disappeared and a fresh train of phenomena appeared. When in an apparently normal state she would shake, turn a somersault, and enter a new and different mental state. Her memory for all events during health was quite gone, even to the forgetting of the names of things, including the parts of her body and her own name and identity and her parents; but she would remember in one such fit what happened in a previous one. Thus was established a complete dual existence. By education she learned the names of most things, but always employed baby pronunciation. She would write backwards, and that quickly. When these attacks developed she lost all power of walking or standing till about August, 1895. At the early stage she had fits of catalepsy, chiefly rigidity of the flexors. At times she had five or six fits a day, lasting a few minutes, and at her worst periods they lasted for days. She recovered from them quite suddenly, was never surprised at her surroundings, but very composed, and said she remembered nothing during the attack. The most striking feature was exhibited once when she had severe toothache during an attack. He gave chloroform and removed two teeth. On regaining consciousness she recognised that the teeth and pain were gone. Her father hypnotised her and brought her to the normal state, when she made the discovery of the blood and the loss of the teeth, but never remembered the previous pain or the administration of chloroform. She had then been in the abnormal state for about three days. There had been many variations, and she had four different existences besides the normal. (1) "Nib" for "old Nick," when she had violent passion and biting and slid down the bannisters; (2) "Dreadful wicked thing," when everything was reversed, black being white, asleep being awake, the head being the foot, and so on; (3) "Allie," when she was amiable and good; and (4) her ordinary fits, as already described. Other phenomena occasionally occurred. Thus she was at times completely deaf and dumb, or there might be loss of memory, so that she did not know those whom she ordinarily knew during the fits. The last three or four weeks a fresh phase had occurred. She was now (in January, 1896) living mentally in July, 1895, this having followed on a mental blank of a fortnight's duration. This was shown by her imagining events to have just happened which happened in July and other circumstances. Her general health and nutrition were good. She had not yet menstruated. The treatment had been by means of rest and quiet and fresh air. Tea and coffee caused attacks of mania. The thyroid treatment had no apparent effect.—Dr. ALTHAUS said that many cases of double consciousness after hystero-epilepsy were on record in which the patient would change into an entirely different personality.—Dr. ORMEROD inquired into the causation in the case shown, and asked whether it was really a meningitis or a febrile attack with nervous symptoms due to the same cause as the present condition, which, for want of a better name, he would be inclined to call hysteria.—Dr. ROBERT JONES said that he thought that the girl was unduly precocious and acted on suggestion.—Dr. WILSON, in reply, said that he was not attending the patient when the so-called attack of meningitis occurred. There was a rise of temperature after a chill, followed by headache and intolerance of light and sound, and after a time the fever subsided. He did not think that she was acting under suggestion at the present time.

Dr. NORMAN DALTON showed a man aged twenty-seven years who was the subject of Myopathic Muscular Atrophy which came on when he was twenty years of age. There was marked lordosis, which disappeared in the sitting posture, and the man was weak in the muscles of the front of the leg. When he rose from the floor he could not climb up his own legs like most children with muscular atrophy. The face was not affected. There was atrophy of the lower part of the pectoralis major and of the latissimus dorsi, the deltoids were weak and the biceps not so much so. The triceps on each side was very atrophied; the forearms and hands were strong. The glutei were not much atrophied, and the calf muscles were strong. He was unable to lift his toes. There was no reaction of degeneration and the knee-jerks had been lost quite early. There was no disturbance of sensation. The patient had married two years after the affection had commenced and had had two children. There was no family history of nervous affection.

Mr. H. PATERSON showed for Mr. WILLETT a man aged fifty-eight years who had been treated in St. Bartholomew's Hospital for Cellulitis of the Thigh and Leg. Although multiple incisions had been made, the skin and deeper tissues sloughed, and amputation was only desisted from on account of the man's extremely weak condition and the insufficiency of skin to form a flap. Under gas the sloughing skin was clipped entirely away and an enormous raw surface left to granulate. This was later covered by several large Thiersch grafts, the largest being 5 in. by 3½ in., the grafts being taken from the arm and forearm and opposite leg. The grafting had certainly lessened the patient's stay in the hospital and had improved the utility of the limb. The leg had remained soundly healed since 1893, when the grafting took place.—Mr. LUNN said he had grafted a very large number of ulcerated legs, the chronic ulcers being first curetted. Provided the patients could be kept in bed a sufficient time afterwards the newly-formed skin would not break down.—Mr. F. C. WALLIS asked how the skin grafts had been cut of such length.—Mr. WILLETT said that the integument had been well stretched by drawing the skin round behind the limb and then making sawing cuts along the tight anterior surface.—Mr. PEARCE GOULD remarked that there were many cases in which this method proved useful, although chronic ulcers of the leg would frequently break down if the patient were not kept recumbent for two months or more afterwards.

Mr. J. R. LUNN showed a case of Suppuration of the Left Shoulder-joint in a man suffering from Arthritis Deformans. The patient, aged sixty years, was admitted under his care on Nov. 27th, 1893, with chronic arthritis deformans and swelling of the left shoulder-joint. There was no history of gout or rheumatism in the family. The patient enjoyed good health until fifteen years ago, when he had his first attack of rheumatism. Since then he had had repeated attacks in most of his joints. On admission the man appeared to be ill; he was feverish, restless, and inclined to be delirious; he complained of intense pain in, and limitation of movement of, the left shoulder-joint, which was very large, tense, and very painful to touch. His temperature was 103 2° F. He was treated with rest, icebags, and salicylate of soda, but he did not improve. His temperature rose higher and he begged for something to be done. The joint was tapped by an exploring needle and pus was withdrawn. On Dec. 3rd an incision was made in front of the left shoulder-joint, commencing at the outer side of the coracoid process; pus was let out and the joint explored with the fingers and a counter opening made behind. The head of the humerus, which was rough and diseased, was curetted with Barker's gouge, the shoulder-joint being washed out with hot water. Iodoform emulsion was introduced and the incision closed in front, and a small drainage-tube was fastened in the posterior wound. This was removed the following day and the wounds healed very soon, the patient rapidly recovering. In June, 1894, the same shoulder again began to swell and his temperature rose to 102 4°, and the man seemed as bad as ever. The pus was again let out and the joint treated as before. Since the second operation the patient had enjoyed good health. He had now marked wasting of the left deltoid muscle and other muscles about the joint, the movements being very limited. He could only abduct his arm slightly and could raise it nearly to a right angle with his trunk, but had no power to keep it there.

Mr. RAYMOND JOHNSON showed a woman aged forty-four years who was the subject of a Traumatic Orbital Aneurysm. Four months before admission she fell on the pavement on the back of her head and remained unconscious for seven hours. After recovery of consciousness it was noticed that the eye was bloodshot and the eyelids were swollen. The next day the patient noticed a buzzing on the left side of the head extending from the eye to the ear, and within a week the eyeball became prominent. Six weeks ago the noise and the prominence became less. At the present time there was distinct prominence of the left globe; there was no congestion of the conjunctiva, and no pulsation of the globe could be seen or felt, but round the orbit and over the eyeball there could be heard a loud, continuous, humming murmur. The sixth nerve was paralysed, but there was no optic neuritis or dilatation of the veins of the fundus oculi. The vision was normal, except for diplopia since paralysis of the sixth

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nerve had set in. He presumed that the condition was one of aneurysmal varix between the carotid artery and cavernous sinus, produced by a fissured fracture of the base of the skull. If this were so, it was difficult to account for the fact that no pulsation was seen or felt, and there was an absence of dilatation of the veins which one would expect with such a communication. No treatment was contemplated at present, but it was proposed to ligature the carotid if the symptoms increased. Compression of the carotid did not remove, though it diminished, the bruit and pulsation.—Mr. PEARCE GOULD asked, if the diagnosis were correct, how it was that there was no dilatation of the veins in the orbit or in the eyeball. Either the communication must be very minute or some other very special condition must be present. He agreed that it was wiser to do nothing until the symptoms were more urgent than at present. In many cases the symptoms had disappeared either spontaneously or with rest. A case was under the care of Mr. Lawson in Middlesex Hospital recently which presented all the symptoms of acute obstruction in the cavernous sinus, there being much engorgement of the veins with proptosis and bruit. The patient was kept at rest in bed and ice-bags were applied over the orbit and at the side of the head. The man left the hospital much better, and later it was ascertained that all the symptoms had disappeared.—Mr. W. G. SPENCER considered that probably some small branch of the carotid, such as the anterior communicating artery, had communicated with the cavernous sinus, and this had led to the modification of the symptoms.—Mr. BOWLBY said that sometimes after necropsy in these cases nothing had been found to account for the condition, and it appeared possible that these signs might be present without gross anatomical lesion. The paralysis of the sixth nerve in the case shown suggested, however, that there was some pressure upon it.

Mr. C. MANSELL MOULLIN showed a boy with an Uncommon Consequence of a Severe Sprain of the Foot. Five years previously the lad had caught his foot in a wheel and badly sprained it. After that he was in bed for some weeks without medical treatment. Since the accident the lower end of the tibia had failed to grow, while the growth of the fibula had proceeded at its normal rate; hence the external malleolus, by projecting downwards, had produced a spurious talipes. The internal malleolus was exceedingly small, but the lower end of the shaft of the tibia had also failed to grow. The boy was unable to walk for more than half a mile, when he was prevented by severe pain in the shin. He (Mr. Moullin) proposed to resect a portion of bone from the fibula, dividing the tibia at the same time if necessary, and thus to bring the foot into its normal plane position.

Dr. FLETCHER LITTLE showed three brothers affected with Pseudo-hypertrophic Paralysis. There was no family history of nervous disease. The eldest boy, aged thirteen years, had been affected for seven years; the second boy, aged ten years, had been affected for three years; while the youngest, aged five years, had only shown symptoms for nine months. The second child exhibited contracture of both lower limbs.

EPIDEMIOLOGICAL SOCIETY.

Experiences of Cholera in India.

A MEETING of this society was held on Jan. 17th, Mr. SHIRLEY F. MURPHY, President, being in the chair.

Surgeon-General C. A. GORDON, M.D., C.B., Q.H.P., read a paper on Experiences of Cholera in India, and the views held in regard thereto between the years 1842 and 1879. After describing the symptoms of cholera he observed that in those provinces in which epidemics occurred at irregular intervals they were usually, though not always, preceded by sporadic cases, whereas in the valley of the Ganges, where cholera was endemic, these cases occurred at all times of the year, often following errors in diet or the use of drastic purgatives. Epidemics appeared simultaneously in certain years at stations many hundreds of miles apart, and without any known inter-communication or common cause. They occurred at very irregular intervals, and there was no relation between local conditions and the virulence of the disease, stations being visited severely in one year that escaped lightly or entirely in another, their conditions having undergone no change meanwhile. In the same station one regiment might be attacked while others identically circumstanced were spared, or the disease might even be confined to single barrack rooms. Sometimes it was the men, at other times the women and children, who suffered most, and in succeeding outbreaks the incidence might be reversed. The majority of cases among men were, of course, between twenty and thirty years of age, but among children attacks rarely occurred under two years, though the mortality was heaviest in the third and fourth years of life. The mean rate of attacks among men was 17·40 and of deaths 7 per 1000, and 15·80 and 5 respectively among women. In 1867, however, the cases were 25·7 among the troops and 26·1 among the women and children, though more particulars were wanting; but on some occasions women had suffered so severely as to suggest a greater susceptibility in the female sex. Epidemics were often preceded by sporadic cases and by the prevalence of diarrhœa, but sometimes appeared quite suddenly in different parts of the country, occasionally ceasing as suddenly, even after a few days; or, after having apparently subsided, broke out again with renewed violence. They might be limited to small areas though free communication was maintained with other districts; or they might spread, as from a centre, far and wide; or again their progress would come to an abrupt termination at a place which, as previous or subsequent experience showed, enjoyed no natural immunity. Sometimes they seemed to follow the course of a great river and sometimes to march upwards against the stream; rivers might appear to oppose a barrier to their progress or the towns on either bank would suffer alike. In 1861 the great epidemic of that year followed the line of the Grand Trunk-road and its branches, but entirely passed over many villages in its course the conditions of which differed in no known respect from those attacked. River deltas in which cholera was endemic, and occasionally epidemic, differed among themselves in climate, geology, &c. Such were those of the Ganges and Brahmaputra, the Godavery, the Nerbudda, and Indus; yet of 152 officially recorded epidemics in the Madras Presidency 106 occurred in places adjoining rivers. There was a very general belief, apparently supported by considerable positive evidence, that polluted water was an important factor in the spread of cholera; but, on the other hand, of different groups of persons, Europeans or natives, soldiers or civilians, or even different regiments using the same water, some were attacked while others escaped, and some populations had drunk water obviously fæcally contaminated for years with impunity, and the use of filters seemed to make little, if any, difference. Nor during all the period to which these observations related had chemical or microscopical examination of air or water given any satisfactory evidence of a material causative entity. Equally negative were the results of observations on weather and meteorology, outbreaks of cholera occurring with equal frequency after heavy rains or periods of drought, of high or low barometric pressure, of hot, dry winds or monsoons; their course followed or opposed the direction of the prevailing winds, and they were distributed over every season and month in the year. European troops as a rule suffered more severely than the native regiments, but not infrequently the native civil population suffered while the sepoys escaped. Epidemics of cholera occasionally coincided with the prevalence of fevers, "enteric" or remittent, the cold stage of the latter passing into the collapse of cholera, and in some cases of cholera the skin had the yellow tint seen in yellow fever in the West Indies. There was no doubt as to the disease under certain circumstances extending to the lower animals. In 1875, at Delhi, during the epidemic 75 cats died with choleraic symptoms; at Lucknow the horses of the 19th Hussars suffered along with the soldiers; in 1846 carrion birds disappeared at Kurachee, and the corpses of the men of the 39th Regiment buried without coffins for lack of wood were left undisturbed by the hyenas. As to contagion or infection opinions differed, but in 1843–4 the disease was not in a single instance communicated to other patients in the same wards of the Buffs in Allahabad, in 1848 no medical officer or attendant contracted the disease at Cawnpore, and the same immunity was observed throughout the sixty-seven hospitals in India; while in Madras in 1865 numbers of both classes fell victims, and in 1861 at Mean Meer many of the orderlies were attacked, though the medical officers and native attendants escaped. Cholera frequently broke out among troops on the march, sometimes being apparently communicated to them by the populations through which they passed or by pilgrims whom they met, and at other times the reverse order seemed to obtain. The camping-out of troops when cholera appeared in the cantonments

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had often been attended with the best results, but instances were not unknown in which it broke out in camps among troops who had previously been free. All attempts at land quarantine had proved unavailing to check the progress of the disease, absolute isolation being impossible. The influence of insanitary conditions in the origination of cholera, or, at any rate, in intensifying the disease when once it had been introduced, was a matter of general belief, but there were many instances on record in which regiments occupying barracks in most insanitary positions had escaped, whilst others whose surroundings were excellent had suffered, although the population of the filthiest quarters of the old towns had done so in a far less degree. "Regulations" had from time to time been issued and strictly enforced, but with varying and uncertain success, and no treatment could be considered in any sense specific, though experience showed that opium was worse than useless, while the administration of ether and ammonia, with small quantities of iced water, warmth to the extremities and friction, and dilute hydrocyanic acid to check vomiting, afforded some relief, while on the appearance of reaction continued application of warmth to the surface and the use of hot restoratives assisted recovery. Throughout his address the lecturer illustrated and confirmed his statements by instances given with place and date.

The PRESIDENT, in thanking Surgeon-General Gordon for his valuable historical record, expressed his belief that the very prevalence of cholera in India placed difficulties in the way of the study of the origin and spread of epidemics which did not exist in Europe, where the problems were presented in a simpler form.

Dr. KENNETH MACLEOD maintained that the epidemiological method of inquiry had completely failed in India to elucidate the causation and propagation of the disease, for which the pathological and bacteriological investigation of individual cases was necessary.

Dr. SCRIVEN was surprised that Surgeon-General Gordon had scarcely referred to pilgrimages as means in the spread of epidemics, and that he could have any doubt as to the influence of water in communicating the disease.

Dr. WILLOUGHBY felt that the value of the paper lay rather in the problems it suggested than in the facts it contained. Ever since his experience in the epidemic of 1866 he had made a study of cholera and he missed throughout the very conditions and circumstances on which he would have desired information, as those of the regiments attacked and spared, of the men's and women's quarters, food supplies, water, and of the camping grounds in which cholera did or did not occur, &c. He urged that, human intercourse being the chief means of spreading the disease, the direction of the winds and the course of rivers were irrelevant, and, believing in Pettenkofer's theory of ground water, he pointed out that rains after drought or drought after rains might have identical effects. Again, fæcal pollution of water in itself would not originate cholera, though it might intensify it, and Surgeon-General Gordon had not distinguished between this and specific contamination. Cholera, too, like typhoid fever, was not so infectious as small-pox was, though both were communicated by water and food if contaminated. Conclusions from microscopic examinations before 1879 were as worthless as appeals to Leuwenhoek 200 years ago, and such negative evidence counted for nothing against the exact observations of the last few years, while the history of every invasion of Europe and America placed beyond the possibility of doubt the conveyance of cholera solely by human intercourse, by fomites, and by the contamination of water supplies with the excreta of persons suffering from the disease.

SOCIETY OF ANÆSTHETISTS.

Observations on a Series of 550 Timed Nitrous Oxide Cases.

A MEETING of this society was held on Jan. 16th, Mr. G. HEWLETT BAILEY, President, being in the chair.

Dr. T. SYDNEY SHORT (Birmingham) read a paper entitled "Observations on a Series of 550 Timed Nitrous Oxide Cases." Complete records had been kept of 553 cases attending the Birmingham Dental Hospital; of these, 436 were females and 117 males, showing a proportion of 4 to 1. Their ages varied from six to fifty-nine years, the average age of the whole series being 22·5 years. The statistics presented were calculated from figures arrived at after considerable care and attention, and the whole series of numbers had been, to ensure accuracy, audited by a professional auditor. The methods of administration and of timing were described in detail, and the plan adopted to prevent possible fallacies was explained. The first part of the paper dealt with cases in which nitrous oxide was given alone. There were 411 of these—308 females and 103 males. The average length of the inhalation period of these cases was 49·4 seconds, and of the anæsthetic period 41·9 seconds. The males gave a longer period both of inhalation and anæsthesia—viz., 50·7 and 42·6 seconds, as compared with 48·3 and 41·3 seconds for the females. In 25 children of both sexes below thirteen years of age the average inhalation period was 41·7 seconds, and the anæsthetic period 33·3 seconds, the average anæsthesia of the boys being 2 seconds longer than that of the girls. The second part dealt with administrations of nitrous oxide mixed with air. Among the 553 cases there were 142 of these—128 females and 14 males. The average inhalation period was 50·5 seconds, and the anæsthesia 48·3 seconds. Here the anæsthesia of the females exceeded that of the males by 2 seconds, being 48·3 as against 46·6. Of children under thirteen years of age 17 took the gas with air; the boys had an average advantage over the girls of 1·5 seconds in the anæsthetic period. Fourteen patients of the whole series were over forty-five years of age; and their average anæsthesia exceeded that of the serial average by 5 seconds, showing that the length of anæsthesia may be expected to increase with age. In every period of life it was shown that when gas was administered alone males gave a longer anæsthesia than females. Eighty-eight cases giving a longer anæsthesia than 55 seconds were then discussed; and the paper concluded with a reference to the after effects of nitrous oxide, three cases being cited fully as having presented unusual and alarming symptoms.

Mr. WOODHOUSE BRAINE commented upon the low average of the number of teeth extracted—viz., three for so long an average period of anæsthesia as forty-two seconds. In his opinion the only true test for timing anæsthesia was the reaction to the application of pain; he did not consider the patient to be in an anæsthetic state because he did not lift an arm or open his eyes when told to do so.

Dr. DUDLEY BUXTON said his experience of giving nitrous oxide gas mixed with air was quite at variance with that of Dr. Short as far as jactitation was concerned. He found that air introduced into the system in proper proportion completely prevented jactitation.

Dr. HEWITT confessed that it was often very difficult to say when anæsthesia actually terminated, and for this reason he thought it hazardous to attach too much value to timed observations. He had found that the admission of but a small quantity of air during the inhalation of nitrous oxide invariably prolonged the inhalation period.

Dr. SILK said that it was almost impossible to fix upon any one sign as an indication of recovery, as there appeared to be in each case a variable period during which the patient was semi-conscious and incapable of resenting even painful impressions.

Dr. MAUGHAN said that in dental cases it was a matter of common experience for a patient to cry out while the first tooth was being extracted, but to remain perfectly still and motionless during the rest of the operation. He found that the return of sensibility to pain and the moment when the surgeon should cease operating were coincident with the return of the reaction of the iris to light.

Dr. SHORT, in reply, said that he had been surprised to find that the inhalation periods of the administrations of gas and gas with air corresponded so nearly; but there was no doubt that in the method adopted—that of giving a full breath of air at intervals—this was his actual experience, as proved by his figures. The occurrence of jactitation when air was admitted in this way had unquestionably been the case, and he could only suggest that the particular gas used might have influenced the character of the anæsthesia. The greatest number of teeth extracted during one administration of the gas was thirteen; the somewhat low average of extractions was probably due to the fact that it was becoming the custom for so many patients to take the gas for the removal of only one or two teeth. He had not come across any cases of metrorrhagia or renal trouble ascribed to the inhalation of the gas.

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HUNTERIAN SOCIETY.

Exhibition of Cases.

AN ordinary (clinical) meeting of this society was held on Jan. 22nd at the London Institution, Mr. C. J. SYMONDS, President, being in the chair.

Dr. SHADWELL showed a case of Unilateral Spasm of the Face in a Woman. There was a history of previous hemiplegia of the same side. The spasms came on after confinement.

Sir HUGH BEEVOR showed a case of Tremor of the Hand in a girl aged sixteen years. The movements were athetoid in character, and probably functional in origin.—Dr. F. J. SMITH, Dr. DAVIES, Mr. COTMAN, and Dr. RAWES discussed these cases.

Dr. WOODS then showed two cases of Post-Herpetic Neuralgia of some years' standing, which he had treated by suggestion with very marked improvement.—Sir H. BEEVOR said these cases were two of his previously shown at the society, and corroborated the statements of Dr. Woods as to their improvement, which was, indeed, manifest to all the Fellows present.

Dr. FRED. J. SMITH showed (1) a case of Hemianopsia, and (2) a case of Motor Aphasia, and discussed the seat and nature of the lesions.

Mr. HOPE GRANT showed a case of Seborrhœic Eczema in a man aged thirty years.

Dr. ETTLES showed a case of Severe Acne.

Mr. OPENSHAW showed (1) a case of Congenital Dislocation of the Hip, (2) a Microcephalic Idiot with Talipes, and (3) a case of Pott's Fracture with Dislocation of the Foot Backwards.

A case of Contracture of the Arm following Severe Injury, and treated by division of tendons above the wrist, was shown for Mr. TUBBY.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Angina Pectoris and Pseudo-Angina.—Exhibition of Cases and Specimens.

A MEETING of this society was held on Jan. 15th, Dr. W. B. RANSOM, Vice-President, being in the chair.

Dr. CATTLE read a paper on Angina Pectoris and Pseudo-Angina. He read notes of five cases, three in women and two in men, one of whom died in an attack. Cases of cardiac pain of a more or less anginoid and paroxysmal character might be divided for practical purposes into two main groups: cases in which the symptoms were mainly neurotic and in which the heart possessed fair contractile power; and, on the other hand, cases in which the neurotic element was but slightly marked, while there was grave reason to fear that the cardiac muscle was degenerate. Closely allied to the neurotic group were cases in which the pain might safely be said to be exo-cardial, such as intercostal neuralgia in hysterical subjects and some cases of gastralgia in which pain radiated along spinal nerves; these were cases of pseudo-angina proper. In this class of cases diagnosis was generally easy. It was also easy in cases in which angina was symptomatic of some easily recognisable disease of the heart or aorta. But it was often a matter of diagnostic difficulty to distinguish between some neurotic cases and cases of angina dependent on structural decay of the heart. The symptoms might be very similar while depending on very different causes, and to arrive at a correct prognosis and treatment all the symptoms surrounding a case had to be taken into serious consideration. Some cases of fatty heart were notoriously difficult to diagnose, and it was in persons past middle age, whose hearts might be apparently healthy although they suffered from angina, that the greatest caution in diagnosis was necessary.—Dr. RANSOM, Dr. TRESIDDER, Dr. BLURTON, Mr. PRYCE, Dr. COULBY, Dr. PESKETT, and Miss GRAY discussed the subject. Several speakers thought the reader of the paper had underrated the occurrence of angina in chronic renal disease.—Dr. CATTLE replied.

Mr. LAWS showed a boy aged seven years in whom Interstitial Keratitis had developed in the Right Eye after injury. It was thought he was also the subject of congenital syphilis.

The following specimens were shown:—

Mr. CHICKEN: a Vermiform Appendix removed from a child nine months old. Part of the cæcum had descended into a hernial sac. He also showed a Hæmato-salpinx containing Multiple Cysts. The right ovary had become twisted over and adherent to the left tube.

Dr. WILLIAM RANSOM: Photographs illustrating an extreme degree of Muscular Dystrophy in a young man. The parts chiefly affected were the face and the arms. The case did not conform to any of the usual types of muscular atrophy.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Unusual Eruption in Enteric Fever.—Fatal Case of Chorea.

A MEETING of this section was held on Jan. 17th, Dr. T. W. GRIMSHAW, President, being in the chair.

Dr. J. M. DAY read a paper on a case of Enteric Fever in which a peculiar rash resembling that of typhus fever was present.—Dr. J. W. MOORE said that when he first saw the case he had no hesitation in pronouncing it to be typhus fever, but the temperature chart now shown proved absolutely that it was enteric fever and not typhus fever. He never saw a case more like typhus fever in the early stage by reason of the number of the spots, their unusually dark colour, and their irregular size.—Dr. POLLOCK said he had seen several cases in which there was the rose-coloured rash all over the body, together with all the other symptoms of enteric fever, yet they were cases of typhus fever. The brain became rapidly involved, and all the cerebral symptoms manifested themselves.—The PRESIDENT gave some details of a case, apparently of typhus fever, but a fatal result produced by perforation proved that the case was one of enteric fever. He also mentioned a number of cases that occurred in Bishop-street, Dublin, in which both rashes coexisted simultaneously in the same patient, and he added that the late Dr. Kennedy believed that cases of mixed enteric and typhus fever sometimes occurred.

Dr. JAMES LITTLE related the particulars of a case of Chorea which proved fatal. The patient was a woman aged about twenty years.—Dr. ALFRED SCOTT found at the post-mortem examination some very small vegetations on the mitral valve, otherwise the heart and viscera were normal. The brain was removed and sections from various parts examined. In the large ganglionic cells in the motor area of the cortex a yellowish, degenerated patch could be seen, which was blackened by osmic acid. Dr. Scott thought that this degeneration was probably caused by fatigue resulting from the excessive choreic movements, and was not the cause of the disease.—Dr. DAWSON said he would like to ask Dr. Scott at what stage in the hardening process he made the section. He considered the degeneration like that which commonly accompanied insanity.—Dr. COX gave the details of a case of chorea occurring in a child. The faculty of speech was lost completely; the temperature rose to 104°F.; there was great wasting both of the muscles of the arms and the body; the patient was unable to support her head, and food was administered with great difficulty, so that it looked as if the case would terminate fatally. He tried bromide of potassium, but found it of little use. What had a decidedly good effect was Easton's syrup with arsenic. The strychnine he gave after some hesitation in the hope of stimulating the respiratory centre, for he feared that the respiration would stop at any moment. The patient eventually recovered. He believed that the spinal cord played as important a part as the brain in the production of chorea.—Dr. POLLOCK said he had given strychnia in chorea, but never found it of use.—Dr. PARSONS said that chorea in persons over twenty years of age is a rare affection. He thought that the vast majority of cases would recover if left alone. Only 3 per cent. of ordinary cases die, whereas when the disease occurs in people over twenty years of age, according to Dr. Gowers, who had collected a large number of cases, the mortality was 20 per cent. Death, he (Dr. Parsons) thought, was due to exhaustion.—Dr. LITTLE, in reply, said that the first drug employed in his case was chloral hydrate, but without any good effects. After its failure he tried other remedies.—Dr. SCOTT, in reply to Dr. Dawson, said that at the time of section the brain was half hardened. He used blue-black and also another form of blue stain.

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Reviews and Notices of Books.

The Year-book of Treatment for 1896. Pp. 476. London: Cassell and Co. Price 7*s.* 6*d.*

THIS excellent manual needs no introduction. Within a short compass it gives a *résumé* of all the useful, and most of the useless, innovations in treatment during the year. It should be in the hands of every practitioner. In the section on Diseases of the Heart, the Schott treatment at Nauheim is examined from several points of view, and a full abstract given of an important discussion at the Edinburgh Medico-Chirurgical Society on the Relative Advantages of Strophanthus, Digitalis, and Allied Remedies. The few pages on the Sanitary Supervision of Tuberculosis in New York will attract attention. There is no doubt that New York attempts to effect that which is practically impossible in London; yet the gains resulting from the notification of tuberculosis may, after all, not warrant such an enormous extension of the duties of the sanitary officer. The treatment of tuberculosis with serum and nuclein and by intralaryngeal injections is adequately described, and the results, positive and negative, so far obtained recorded.

Attention is rightly called to a remarkable case of pleurisy recorded by Dr. S. West, wherein after the pleura had remained full for over a year the lung was found not to be bound down, but capable of rapid re-expansion after tapping. The case is well described, and there is so much in it unlike the usually accepted views as to the results of fluid in the pleura as to merit close study.

In the section on Nervous Diseases a few more hypnotics receive their quietus, and the antitoxin treatment of tetanus a fair criticism. With regard to the latter the total number of cases is still far too small for any deductions of much value to be drawn. Dr. Sidney Phillips gives a valuable and important summary of the state of knowledge so far gained of the treatment of diphtheria by antitoxin, and after pointing out the apparently diminished mortality recorded by the great majority of observers lays due stress on the possibly added dangers following on the use of the drug.

A successful case of Laparotomy in Perforation of the Intestine in Enteric Fever, by Robert Abbe of New York, the second on record, is important. From post-mortem experience in enteric fever it is obvious that the number of such successful cases can be but few, and it is difficult to find any indications of likelihood of success during life. Craniectomy for Microcephalic Idiocy, which never seemed to hold out much hope of help, is now apparently laid to rest among the many dead operations. In striking contrast is the growing number of cases of successful surgical treatment of Perforating Ulcer of the Stomach, and two cases by Küster of Marburg are recorded where the ulcer was attacked before perforation, in both with success, on account of repeated hæmorrhage. The use of Murphy's button is fully discussed.

Mr. Edmund Owen's article on the Surgical Diseases of Children is full of useful matter. There are few now who will dispute his dictum that "every case of intestinal obstruction should be regarded as surgical, and in hospital practice should be sent as a matter of course to a surgical ward."

Dr. Herman makes available to English readers two valuable papers—the first an elaborate classification of Papillary Tumours of the Ovary by Pfannenstiel, the second a thorough investigation of Chronic Endometritis by Van Tussenbroek and Mendes de Leon, the latter especially introducing much that is new.

That the manual is kept well up to date is shown in the article on Public Health by the inclusion of references to Mr. Power's Interim Report on the Causes of Lead Poisoning, which appeared as late as September, 1895. Attention is also drawn to the fact that the principle of compulsory notification has been extended by the Factory and Workshop Act of 1895 to "lead, phosphorous, and arsenical poisoning or anthrax contracted in any factory or workshop." Notice of such must be sent by the medical practitioner to the chief inspector of factories. It is a most useful book for a busy man.

Phonographic Outlines of Medical Terms. Issued by the Society of Medical Phonographers. London: Sir I. Pitman and Sons. Price 1*s.* 6*d.*

SHORTHAND already holds an important place as an agent in medical education, it is extensively used by both practitioners and students, and there is a little journal, the organ of the Society of Medical Phonographers, published in phonographic characters. Much has been said and written on the subject of shorthand in medicine, and there can be no question that its extended use will be of distinct advantage to the progress of medical knowledge, but it is necessary that the system of shorthand used should be one that will be as legible when written as ordinary cursive script. That phonography possesses this advantage when legibly written and fully vocalised all acquainted with the art will admit, but to follow a speaker, even a slow one, it is necessary to have resort to certain abbreviations and other devices, and it is here that a danger arises. To minimise this danger it is necessary that all symbols standing for words should have a distinctive form, and with this object in view Phonographic Outlines have been compiled. The outlines chosen for about 2500 of the more common medical terms show evidence of careful thought, and the student who has the list at his finger ends will be fully equipped for taking reliable notes. The compilers have wisely deviated from the authorised system in some instances, as all practical, as distinguished from theoretical, phonographers do. Amongst other things the use of the downward *r* before *m*, even when not preceded by a vowel, will be found a distinct advantage. The backward *ft*, too, ought to be more freely used. On the whole the book can be thoroughly recommended; indeed, to the medical phonographic student who would get the utmost use out of phonography it is indispensable. The advantages of some of the outlines will not be endorsed by the professional reporter, but experience will teach the medical phonographer to what extent he may deviate from the useful standard list here drawn up.

Revue des Sciences Médicales en France et à l'Etranger. Dirigé par Professeur GEORGES HAYEM. XXIV. année. Tome XLVII., Fascicule 1. Janvier 15, 1896. Paris: G. Masson. Subscription 40 fr. per annum.

THIS very useful publication, which is published every three months, has reached the twenty-fourth year of its existence, and compares favourably with any of the retrospects of the medical sciences in this country or abroad. The treatises, memoirs, pamphlets, and papers analysed and briefly epitomised amount to no less than 333, under the several headings of Anatomy, Physiology, Medical Chemistry, Pathological Anatomy, Experimental Pathology, Pharmacology and Toxicology, Therapeutics, Hygiene, Internal Pathology and Clinical Medicine, Gynæcology and Obstetrics, Diseases of Children, Dermatology and Venereal Diseases, Alcoholism and Psychiatry, External Pathology and Surgical Therapeutics, Ophthalmology, and, finally, Diseases of the Larynx, Nose, and Ears. We speak from experience in saying that such a work as this, involving much labour in its preparation and arrangement, and only to be accomplished by the coöperation of many workers, is extremely useful, when carefully executed, to all those who are desirous of seeing what work has been recently done and what results have been obtained in any

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department of medical science at which they are working or on which they desire to possess the most recent information.

LIBRARY TABLE.

The Report of the Department of Pathology of University College, London, June, 1895, together with a Collection of Papers and Abstracts published from the Laboratory. Vol. V. Edited by VICTOR HORSLEY, F.R.S., and VAUGHAN HARLEY, M.D.—This volume contains seven articles on neurological subjects, three on chemical pathology and metabolism, and one on bacteriology. Five of the seven on neurology are by J. S. Risien Russell, M.D., the remaining two being written by A. E. Levy, and by C. D. Marshall. The memoirs on chemical pathology are by Vaughan Harley, M.D., and the solitary one on bacteriology is by R. W. Boyce, M.D., and Nusserwanji Surveyor, M.D. Most of these papers have been noticed in our columns as they appeared in the Proceedings of the Royal Society, The Journal of Physiology, and other periodicals. In the report it is stated that the teaching in the chemical department is much hampered for want of adequate accommodation. It is convenient to have the memoirs proceeding from a particular school in a collected form.

A German-English Medical Thesaurus. By the Rev. HENRY LOSCH, M.D. Philadelphia: Published by the Author, 4109, Pine-street. 1895. Price $2.50.—Readers commencing the study of German medical literature may very soon find the ordinary German-English dictionaries quite inadequate to their requirements, and would, in fact, be helpless without the assistance of some special lexicon such as the above. Dr. Losch's work explains about 9000 German medical words; nominally it contains more than 10,000, but the first 500 are for the most part ordinary nouns and adjectives denoting abstract qualities, while the last 500 relate solely to every-day articles of food, clothing, and household furniture, and are to be found in any dictionary or traveller's vocabulary. Anatomy and pathology are adequately represented, but the list of surgical terms is so meagre that there is no mention of such frequently-occurring words as splint, trocar, cannula, drainage, stump, flap, crutches, tourniquet, lithotomy, lithotrite, aspirator, tracheotomy tube, perforator, stethoscope, and cautery. The German words are in Roman characters, and the author has introduced an absurd innovation by transliterating one of the German compound consonants as *sz*, whereas the Germans themselves render the same character by *ss* in books printed in Roman letters in Germany. Instead, therefore, of the usual orthography Fuss (foot) and Grösse (greatness), Dr. Losch prints Fusz and Grösze; moreover, he gives Füsze as the plural—i.e., feet—and says that it may be divided Fü-sze; but the fact is that a German printer would avoid dividing this word, just as an English printer would avoid dividing the dissyllabic plurals, "horses," "places," and the like.

The Medical Digest, or Busy Practitioner's Vade-Mecum; Appendix, including the years 1891-92-93-94, and to August, 1895. By RICHARD NEALE, M.D. Lond. London: Ledger, Smith, and Co. 1895. Price of the Appendix, 10*s.* 6*d.*; of the complete work (1840 to August, 1895), 18*s.* 6*d.*—Neale's Digest is so well known to the medical profession that in announcing the appearance of a further instalment of this indispensable work we have only to congratulate ourselves on being now for the first time in possession of a complete index to the English medical periodicals of the last four years and a half. The promptness with which the Digest enables an author or a reader to disinter an article or a reference from the vast accumulation stored in these journals is incredible until experience has proved it, while the busy practitioner will find it even more valuable for the concise suggestion of useful practical hints. The first edition appeared in 1877, the second in 1882, an Appendix was issued in 1886, and in 1891 the third edition was published in one volume, incorporating this Appendix with what had gone before, and making the work complete for the fifty years from 1840 to 1890. The "Digest" had by that date acquired a secure position among standard works of reference, and in acknowledging its utility, not only to the literary man, but to every active practitioner, we suggested[1] the desirability of Dr. Neale's work being continued as a permanent undertaking whenever from any cause the industrious and talented author found himself unable to carry it on. To make proper use of the Appendix the index of the edition of 1890 must be first consulted for any subject, and the corresponding section referred to in the Appendix to see if fresh matter has been added. If the index of 1890 does not refer to the subject sought for, then the Appendix index, in which new subjects are alone noted, should be consulted. Some corrigenda of the edition and index of 1891 are given at the end of the Appendix.

MAGAZINES.

The Psychological Review (January, 1896).—This review contains a polemical article by Professor Fullerton of Pennsylvania University entitled "Psychology and Physiology." In the writer's opinion it appears that the physiologist has hitherto been unwarrantably poaching on the domain of psychology. He states that in the absence of exact knowledge as to the functions of organisms physiologists are obliged to overstep the limits of their own science and drag in psychological material to fill up the unwelcome gap. Professor Fullerton divides his article for the purposes of discussion into two parts, and bases his argument on two hypotheses: (*a*) the parallel relation of mental and bodily states, and (*b*) the inter-connexion wholly or in part of the psychical and physical series. The conclusions arrived at are the same, however. The physiologist has a definite task—the study of the physical series; he has no right, says Professor Fullerton, to speak of sensations, of feelings, of ideas; they are not in his world. The writer selects Professor Foster's text-book as a representative work on physiology and subjects various extracts from chapters on the nervous system to a critical analysis in order to demonstrate that, when the anatomical and psychological portions are removed, the residue is surprisingly small. Science will not concern itself much with this quarrel, but will welcome from both sides anything that will tend to elucidate the mysterious relationship between body and mind. The other parts of the review mainly contain the results of psychological experiments undertaken at Harvard University.

Journal of the Sanitary Institute. Vol. XVI., Part 4.—This volume of the journal contains—in addition to interesting elementary lectures to sanitary officers on Trade Nuisances, Methods of Disinfection and Scavenging, by Professor Bostock Hill, Dr. Seaton, and Mr. Charles Mason—an article by Mr. Edward Patterson on the Hermite Process of Sewage Treatment as illustrated by its use at Ipswich, Lytham, and the Victoria Hospital, Netley, which should be useful to those anxious to obtain information on the subject. There is also in the journal a valuable paper on Putrid Gases as Predisposing Causes of Typhoid Infection, by Dr. Giuseppe Alessi, which has been translated by the Misses E. and C. Harvey. Dr. Alessi, after a series of interesting experiments, arrived at the following conclusions: "1. The inspiration of putrid gases predisposes the animals (rabbits, guinea-pigs, rats) to the pathogenic

[1] THE LANCET, June 27th, 1891.

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action of even attenuated typhoid bacilli and of bacterium coli. 2. This predisposition is due to the combination of gases given out by putrid fermentations and not to any one separately. 3. It is probable that this experimental predisposition is diminished by prolonged breathing of the said gases."

The Journal of State Medicine, Vol. IV., No. 1.—A photograph of Sir John Simon, K.C.B., forms an appropriate frontispiece to this volume of the journal, the council of the Institute having awarded the first Harben gold medal to Sir John Simon in recognition of his eminent services to State medicine. It has been determined by the nomination committee that, in awarding the medal and lectureship founded by Mr. Harben, it shall be optional whether the two be conferred in any one year upon the same or different individuals, and it has been decided to offer the first lectureship to Dr. Roux of Paris. There are some interesting papers in the volume of the journal before us, and especially so is one in reference to Disinfection by Current Steam, as illustrated by Dr. Thresh's disinfecting apparatus. Our readers will remember that in a recent issue we were able to report very favourably upon this apparatus in our columns.[1]

The Quarterly Journal of Microscopical Science. Edited by E. RAY LANKESTER, ADAM SEDGWICK, and W. WELDON. London: J. & A. Churchill. January, 1896. 10*s*.—The present number of this journal is entirely occupied with one memoir: the Development of the Asterina Gibbosa, by E. W. MacBride, Fellow of St. John's College, Cambridge, which is illustrated by twelve plates, presenting many figures. The text and plates are the results of two years' work. Many of the specimens were obtained from Naples, and the author expresses his obligations to Professor Dohrn. All the stages were preserved in osmic acid and then in Müller's fluid, which made them brittle, but differentiated the tissues to such an extent that they looked like coloured diagrams. They were embedded in celluloidin and then in paraffin. In the earlier stages corrosive sublimate was used. The details do not admit of any abstract being made, but we may give the concluding paragraph of this important memoir. "The group Protocœlomata was a pelagic, cosmopolitan one and it is in accordance with what we know of wide ranging groups that some of its members should adopt changed habits and modified structure. The Echinodermata represent the earliest offshoot, which took to a sessile life and acquired radial symmetry. A little later the Hemichordata branched off, a burrowing life being adopted with consequent degeneracy. The main stem, however, remained pelagic, and gave rise to the Chordata. The Ascidians were the next offshoot and then came Amphioxus. We see, therefore, that the track of the great Chordata phylum through past ages is traced by examining those of its members who at very different periods of its history and at different stages of its evolution have forsaken their high vocation, and taken to a burrowing or sessile life, with the inevitable consequence—degeneracy."

The *Leisure Hour* has an interesting article, contributed by Sir E. Maunde Thompson, K.C.B., on the British Museum. Among the illustrations is a portrait of Sir Hans Sloane, M.D., F.R.S., whose collection of botanical and other objects of natural history formed a considerable part of the first treasures stored in our national museum.

The *Phonographic Record* contains a further instalment of Dr. Gowers' papers on Problems in Practical Diagnosis. The current issue is the first number of a new volume.

New Inventions.

PNEUMATIC SAVING SHEET.

I RECENTLY had an appliance made which has proved very valuable to me in my midwifery practice. It is a portable pneumatic bed cover, when uninflated and folded of no greater bulk than a ten-ounce bottle, but when unfolded and inflated forming a saving sheet 30 in. by 24 in. in extent. This seems

small, but I have found it is quite sufficient. It is somewhat kite-shaped in form and has an inflatable tube running round its edge except at the apex, which is flat for some three or four inches. By placing the sheet beneath the patient (undressed, of course) and above the ordinary bedclothes, bedding, &c.—having previously dilated the cushion—I have proved that every confinement can be conducted without the bed-covering, clothes, or carpets getting soiled or wetted in any way. The sheet can also be used for douching, irrigating, &c. It can be obtained from Messrs. Arnold and Sons, London.

Highgreen, near Sheffield. C. L. BIRMINGHAM, M.B. R.U.I.

THE CASE OF MR. LIONEL SMITH.

WE have been requested by Dr. Goodhart and Dr. de Havilland Hall to acknowledge the following subscriptions, which have been received by them, to this fund:—

Dr. George Thomson	£2	2	0
Mr. Fawsett	2	2	0
Dr. Corns	1	1	0
Dr. Patterson	1	1	0
Dr. Hodgson	0	10	6
Dr. Apthomas	0	10	6
Rev. H. B. Wilder	1	0	0
Mr. Howard Marsh	2	2	0
Dr. Wm. Hill	1	1	0
Dr. B. Jones	1	1	0
Mr. J. Bruce Ronaldson	1	1	0
Mr. W. F. Brook	1	1	0
The British Medical Benevolent Fund ...	10	0	0

We have received at THE LANCET Office the following subscriptions additional to the £73 10*s*. 6*d*. already acknowledged:—

Dr. C. Coates	£2	2	0
Dr. J. Kidd	1	1	0
Dr. R. Spence	1	1	0
Th. B.	3	3	0
A Well-wisher	3	0	0

Dr. Goodhart and Dr. de Havilland Hall point out in their letter to us that, notwithstanding the kindness of those who have given liberal assistance, Mr. Lionel Smith, who starts to-day (Friday) for South Africa, will arrive at his destination practically penniless. This is no over-statement of the circumstances, and we beg our readers accordingly to send us further subscriptions. Arrangements have been made for forwarding them to Mr. Smith.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 1, 1896.

ALTHOUGH unfortunate events have recently riveted the attention of the English public—indeed, of the whole world—on the deadly fevers which prevail on the West Coast of Africa, the prevalence and the intensity of the malaria in that part of the world has only been too well known for many years. Indeed, one of the chief characteristics of the African continent, if we except its extreme southern portion, is the destruction caused to human life by these fevers. Wherever the soil is sufficiently moist and the temperature is high—conditions which are found combined over a large part of Africa—malaria prevails in deadly forms on the swamps near the coast and in deep, moist valleys in the inland higher parts. It is found in less severe forms on the elevated regions of the interior, and it is only in districts at a high altitude with exceptionally dry conditions of soil that it is never found. Wherever, therefore, a European enters Africa to the northward of the Cape Colonies he has to face the unavoidable danger of being attacked by a fever that imperils his life and is injurious to his strength. Although these facts are more or less known their gravity can only be appreciated by examining and comparing the records of explorers and medical men who have travelled in Africa. From whatever quarter, except the south, Europeans have entered the continent they have been met by this deadly malady. It was while studying the fevers that prevail in Algiers that LAVERAN made his famous discovery of the parasite which causes the disease, and the whole northern coast is more or less subject to malaria, which is very common near Alexandria at certain seasons. On the east coast, however, these diseases prevail, not only on the coast, but in swampy places up to elevations of 2000 feet. The country near Delagoa Bay is notoriously unhealthy, a remark which applies equally to the district of the Zambesi. Bagamoyo, the starting point for travellers into the interior, has been described by DUTRIEUX as "a veritable graveyard for Europeans." Senegal, Sierra Leone, and the Gold Coast are notoriously malarial to a high degree, and no European who lives in these parts can confidently expect to escape. The higher lands of the interior, although comparatively more healthy, are by no means immune. At the Victoria Nyanza malarial fever is found at an elevation of 4000 feet, and there is a good deal of ague in Uganda, which has an elevation of from 4000 to 5000 feet. Elevation affords no certain protection if it is associated with sufficient warmth and moisture of soil. Those who are familiar with the conditions of life which prevail at Sierra Leone and the Gold Coast and who have associated with those who have returned from these parts to England are familiar with the figures that tell of the grave loss of life which continued residence in these parts involves, and there are scattered through the literature which deals with Africa references to many facts which give us a precise idea of what the mortality actually may be. DAVIDSON'S Geographical Pathology deserves careful study by those who wish to have an accurate appreciation of what African climates really mean. In that book we find LIVINGSTONE given as the authority for the statement that on the Zambesi twenty-five out of 104 soldiers from Portugal were cut off by fever in one year. The Roman Catholic mission on the Upper Nile lost twenty-six of its agents in one year. SCHWEINFURTH says that half the travellers who went into the swampy districts of the Bahr-el-Ghazal and Bahr-el-Arab succumbed to fever. At Livingstonia on the shore of Lake Nyassa the mortality was so great amongst the members of the Scotch mission that they had to leave the district altogether. In the region extending from Vivi to Stanley Pool on the Congo some 200 Europeans had lived for six years, and 25 per cent. are stated to have died annually from fever. Figures like these apply to the worst parts of Africa. Other parts in which malaria occurs are affected more lightly. It scarcely exists in Cape Colony and barely in Natal. It is not uncommon, however, in the valleys of Zululand. There is a yearly fever season in Matabeleland, and one also occurs, mostly in the intermittent form, in the autumn and spring in Bechuanaland. The types of malarial fever in Africa follow the same general rule as in the other continents. In the central tropical regions with high temperatures the fevers are mostly, but not entirely, produced by the small quickly-growing parasite with a cycle of about twenty-four hours, in whose rapid growth, even within the twenty-four hours different stages of development occur simultaneously, throwing into the blood the poison associated with the maturation of the spores so continuously that the patient has often very brief or no remittence in the fever symptoms. The preference of this parasite for certain organs determines the nature of the symptoms. The liver especially seems marked out for attack, and in many cases it attacks the brain, in the latter respect presenting an analogy with the quotidian parasite which causes the pernicious fevers in the south of Europe. Apart from the direct action on the liver, the poison which is set free by the malarial parasite has a great tendency to produce symptoms of gastric irritation and retching. The conjunction of these symptoms produces the form of fever which is called by African writers bilious remittent. But this is not the only form of the parasite of malaria in Africa. Quartan fever is stated to be rare on the west coast, but tertian fever seems to be common in many parts of the continent. LIVINGSTONE'S first attack of fever, when he was at an elevation of 2900 feet above the sea level, was of a tertian type, and in Senegal tertian fever is common in July. More detailed information regarding the African parasites of malaria is still required, particularly regarding the quotidian parasite which produces effects of such severity. Dr. THIN has stated, in his remarks on the prophylaxis of malarial fever in our last number, that certain characteristics in the pigment formation have led him to suppose that it might possibly belong to a special variety, and in the paper published by him in THE LANCET of July 6th, 1895 (Fig. 13, *b*), he figured a white corpuscle from the blood of a patient at Sierra Leone in which the

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arrangement of the pigment in rods differed from anything that he had observed in malarial blood from India and the South of Europe. The frequent complication of hæmoglobinuria would seem to justify this hypothesis. These questions of the morphology and varieties of the parasites of malaria in Africa will receive consideration from the many observers who will doubtless now devote themselves to the study of this aspect of the subject, but we know enough already to suggest measures of prophylaxis and cure which, although long indicated by results of experience, can now be rendered more precise in the light of our better knowledge of the etiology of the disease.

Between the great severity of the fevers of the west coast and the lighter forms of intermittent which are found in the more inland and higher districts, and also occasionally on parts of the coast, there are fevers which occupy a middle position. In Matabeleland, for example, in some years many of the cases are more like the usual ague. In other years they are of a low, bilious type, every man, woman, and child at one of the concessions being attacked, and even the natives suffering a good deal. Notwithstanding symptoms of great discomfort and considerable severity, including a dry, hot stage lasting sometimes more than twenty-four hours without relief, with intervals in the more severe cases of a low, muttering delirium, the mortality is not great, and contrasts markedly with that of the west coast.

The practical considerations which arise in connexion with these African fevers come under two categories. What are the measures available to prevent the attacks, and what is the most successful method of treatment? The treatment of these fevers is a subject which has been fully dealt with by various writers, and into which we cannot now enter in any detail. It centres itself largely in the method of administering quinine and the doses which should be given. We would only now remark that the analogy with the severe fevers of the South of Europe and the experience of practitioners on the coast show that the best chance for the patient consists in pushing quinine in very large doses. The time when the drug kills the parasite is when the young spore is set free. At a later stage the hæmatozoon appears to resist it successfully. It is necessary, therefore, in a case in which the parasite is being continually reproduced in enormous numbers that the blood should be kept saturated with quinine. It is very desirable that some innocent and safe method should be discovered by which quinine in large doses could be administered by subcutaneous injection without producing the local inflammation which is so apt to follow injections of the solutions which are at present available. The severe retching which accompanies many of these cases renders this very important.

The prophylaxis of malaria consists in personal hygiene and in the use of quinine. The power to become acclimatised and to recover from the debility which follows the fever depends so much on the strength of the constitution that only strong men should be selected for employment in malarial parts of Africa. The man with natural vigour and strong vitality under favourable conditions has a fair chance of regaining strength. The naturally weak man becomes the victim of cachexia, which predisposes him to fresh attacks. It is amongst men of this class that hæmoglobinuria is apt to occur. Sobriety, regular nourishing food, avoidance of great fatigue, and protection from the sun are measures which notoriously assist travellers and residents in overcoming the parasite, but even these important measures are not so important as prophylactic doses of quinine. Quinine is especially useful in those whose period of residence in malarial districts is likely to be short, and when the effect of long administration is to be less considered. Dr. THIN, in our last number, adduced some important evidence from the annals of the navy at a time when our suppression of the slave trade on the West Coast involved large sacrifices amongst our sailors. Many similar instances have been recorded by travellers. The late Surgeon-Major T. H. PARKE, in his "Personal Experiences in Equatorial Africa," states that about ten days before entering the mouth of the Congo each officer of the expedition was given four grains of quinine twice a day; and from the time they entered the mouth of the Congo, on March 18th, 1887, till they reached Stanley Pool, on April 22nd, a distance of 350 miles, there were but one or two cases of fever amongst the officers and no deaths, although the quinine was taken but very occasionally during this interval. The Belgian officers stationed at Stanley Pool found this exemption from fever extraordinary. The white officers of their caravans when on the same march had suffered incessantly from fever, and many of the number had died. "The result impressed us all," the author remarks, "so strongly with the value of prophylactic treatment that, so far as our stock of quinine permitted, we pursued it all through our entire expedition." Dr. CROSSE, in his "Notes on the Malarial Fevers met with on the River Niger," a small work which contains much valuable information regarding these fevers concisely arranged, remarks regarding quinine as a prophylactic that it ought always to be given. For those who live permanently in the country he recommends that six grains of quinine should be given every third day, and that after a long journey or other heavy work "a warm bath and a dose of quinine will go a long way towards preventing an attack of fever." The rationale of the prophylaxis of malaria fever by quinine consists in the fact, as Dr. THIN pointed out last week, that a very small proportion of quinine in the blood renders the soil inhospitable to the naked spore of the hæmatozoon, and it seems perfectly clear on theoretical grounds, as well as from the result of personal experience, that for those whose residence in malarial districts is only temporary, the larger the dose of quinine that can be taken without discomfort the less is the chance of fever, and it seems to be fairly shown that fever can be almost certainly prevented by a daily dose of quinine that can be taken for a considerable time without any derangement of health. Whether five grains daily is sufficient for this purpose remains to be seen, but it is quite certain that that dose, and probably a larger dose, can be taken for a considerable time without injury. Sir SAMUEL BAKER, a number of years ago, remarked at a meeting of the Royal Geographical Society, after a paper on African travel had been read, that without sulphate of quinine such journeys would have been impossible and the traveller would not have been able to return to tell his tale. The statement still

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holds good and has more force now than it had at the time it was made. It will be so long before the levelling of bush, the clearing of forest, the drainage of subsoil, and the cultivation of the ground render an appreciable extent of tropical Africa safe for permanent residence that it is only by the parasiticide action of quinine that Europeans will be able to utilise the resources of these rich countries.

BY the death of Sir FREDERIC LEIGHTON—for so he will always be known, even if sentiment and etiquette are not equally right in withholding his baronial style—England has lost one of her most learned, graceful, and conscientious exponents of art, whilst the institution over whose counsels he so skilfully and assiduously presided has to deplore an admirable head, a man fitted by every possible quality, moral, mental, and physical, for the position to which he was called nearly twenty years ago. The medical profession, in common with all the cultured classes, will deeply regret that so admirable a public official, so capable and pleasing an artist, and so gifted and high-minded a citizen as the late President of the Royal Academy has passed from among us. He leaves a gap which it is no disrespect to his survivors at Burlington House to say it will be impossible to fill. There are Royal Academicians with genius, learning, and tact; there are Royal Academicians with high culture, broad sympathies, and deep knowledge of life; there are Royal Academicians to whom hard work is a source of delight and with whom industry is a second habit; but there is not one left who possesses to the ideal extent that Sir FREDERIC LEIGHTON possessed them all the qualities duly blended that should ensure success in the Presidential chair.

Medical men even more than members of the other professional classes are keen to mark the results of any occurrence that may work for the advancement or retrogression of pictorial art, for their devotion to this art is well known. The reasons for this are not hard to find. The opportunities that the medical man has for the gratification of a taste for pictures and the development of an instinct for art are very large. As a student the knowledge of anatomy, upon which we need hardly say figure-painting is based, is essential to his education, therefore he starts as a lad in a position from which he is able with honesty to criticise pictures upon points which escape the notice of many professional critics. And in his after-life he is brought into contact with pictures in a unique manner, even if he be not so fortunate as to possess them himself. It is the honourable privilege of the medical practitioner to be intimately acquainted with the private lives and domestic environment of his patients, and within the walls of their houses he sees a range of the art treasures of his country that are unfolded in this familiar manner to the gaze of no other class able to appreciate them. And the unpainted picture of nature is also hung for his benefit more than for that of other men. The country medical man spends most of his day driving in all weathers through all parts of the country, and to him alone among the cultivated classes do the lessons of such journeyings appeal in an artistic manner. The uneducated labourer and the half-educated carrier share his experiences somewhat, but the medical man alone among those to whom it is offered is able to appreciate the presentation of nature's face at all hours, whether burning in summer splendour, veiled in autumnal mist, or white with winter's snows; for it falls to no other class, being able to comprehend such calls on their imaginations, to be abroad at all times and all seasons. The love of the landscape is the country practitioner's solace.

But Sir FREDERIC LEIGHTON had a closer claim upon the medical profession than was constituted by his holding the post of titular head of the art with which its members have such deep sympathy. He was the son of a medical man, his father having died very recently at the advanced age of ninety-four, while his grandfather, Sir JAMES LEIGHTON, was for many years a resident physician at the Court of St. Petersburg. It was the desire of his father and grandfather that young LEIGHTON should be educated as a medical man, and it is conceivable that this would have been his future had he remained in England. But at the age of twelve the boy found himself in Rome, and at once acquired a strong bias in favour of art as a career. From this time forward he wandered about from one continental school to another, following this and that master, and attracted by this and that phase of his pursuit; but it was not until he was eighteen years of age that the idea that he should adopt art as a serious profession rather than medicine was settled, and to an American sculptor, HIRAM POWERS, belongs the credit of having spoken the words of approval that decided the father to allow the son to paint for a livelihood. With what success his efforts met from the beginning is indicated by the position which he held in the painting world abroad and at home. It is not within the scope of THE LANCET to give an account of Sir FREDERIC LEIGHTON'S work or an appreciation of his place in the hierarchy of painting; but, in conclusion, we may perhaps recall to our readers' memory one of his technical procedures because it appears to us to afford a remarkable example of honest laboriousness. It was his habit to paint all his draped figures first in the nude, and afterwards to paint the drapery over them. Now, whatever may be said against the artificiality and vapidity of some of his beautiful figures, with their porcelain complexions and elegant rotundities—those who prate most of his poorer work from this point of view lose sight of the classical and splendid correctness of his better—we have in this method an example of unlimited sacrifice of time and labour to the attainment of a high ideal. The practice cost him immense work, but he believed it to be essential to the proper presentation of the figure, therefore he did not grudge the labour. And therefore his beauty of line and exactitude of drawing must always command the admiration of those who know, and these are the very points upon which medical men do know.

THE Asylums Committee of the London County Council have in a recent report again called attention to the deficiency of the county provision for the pauper insane of the metropolis. It is stated that at the present time

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there are 1200 insane London patients boarded under contract in various out-county asylums, and that arrangements had been made for the reception of about 900 patients in other asylums and licensed houses. These facts establish beyond question the fact that the accommodation for the insane provided in the London county asylums is still deficient, although provision for 10,780 inmates now exists at the five asylums—Hanwell, Colney Hatch, Banstead, Cane Hill, and Claybury—and a new asylum at Bexley Heath is about to be provided. The committee state that if the new and sixth county asylum at Bexley is completed before the end of this century the county of London will then have provision for 13,047 insane patients; but they make the alarming assertion that this provision will leave a deficiency exceeding by more than 2000 the number of the insane that will, according to their estimate, require accommodation on Jan. 1st, 1900. On the basis of this estimate the committee assert that the London County Council would not overtake the probable requirements of London lunacy even if they obtained a site and proceeded to erect a seventh asylum forthwith—and they ask for authority to take this course. In face of this proposal, and the enormous increase of county expenditure it implies, it will be well to consider briefly the grounds on which the Asylums Committee estimate that the pauper insane in London will number 15,118 on Jan. 1st, 1900. In the last annual report issued by this committee it was shown that the total number of the certified insane for whom the county of London is responsible to make asylum provision increased from 10,104 on Jan. 1st, 1890, to 11,668 on Jan. 1st, 1894; it now appears that the number of the certified insane had further increased to 12,118 on Jan. 1st, 1895. Thus the increase in the five years 1890-95 was 2014, and equal to 403 per annum; this increase ranged from 152 in the year 1891 to 833 in 1893, when the increase was undoubtedly in great measure due to the opening of the new Claybury Asylum, causing the certification of cases of previously uncertified lunacy. It should also be noted that if account be taken of the total number mentally deranged in the London population (including those in workhouses and asylums for the imbecile) the increase is almost identical with that of the certified insane; it averaged 400 per annum during the same five years. The marked increase of recorded insanity during the year 1893 is in part attributed by the Asylum Committee to the effect of the severe epidemic of influenza, and but for the exceptional increase in that year the annual increase during the five years would have fallen considerably below 400. The committee, however, estimate the annual increase ("at the ascertained rate of increase") to be 600 per annum. We see no justification for this estimated increase, which appears to overstate by at least 1000 the number of additional cases that will have to be provided for during the five years ending Jan. 1st, 1900. We doubt very much whether the increase of 403 per annum during the five years ending Jan. 1st, 1895, will be maintained, and entirely deprecate the alarmist estimate of the County Council. The census tells us that there is still a large reserve of unregistered mentally deranged persons, including those living with relatives and others, which has, however, been steadily reduced in recent years by more complete registration, causing an increase of recorded cases often mistaken for increase of insanity. Moreover, the reduced death-rate of the insane continues to cause accumulation of cases, increasing the number of existing insane which should not be attributed to increase of occurring cases of insanity. In 1891 the number of London cases of insanity reported by the Lunacy Commissioners was 16,536, and equal to 3·95 per 1000 of the population; and at the same rate of insanity the cases in 1900 would be 18,229, giving an annual increase of less than 200 in the nine years. Allowing, therefore, for an increase due to more complete registration of cases, which is in constant operation, but which cannot be regarded as permanent, we should be inclined to expect an average annual increase during the last half of this decennium not exceeding 300, which is just half the estimated increase for which the Asylums Committee are now desirous to make provision.

Annotations.

"Ne quid nimis."

THE DEATH OF PRINCE HENRY OF BATTENBERG FROM AFRICAN FEVER.

THERE is very little doubt that the diseases of the Gold Coast are more or less connected and interdependent, hanging together, as it were, on a malarial thread. The fevers of that climate are but the varied expressions of one and the same cause, to which must be superadded the exhausting effects of an African sun and an extremely moist atmosphere. Everyone recognises in ague an intermittent fever directly attributable to malaria, but the continuous form of fever or that variety of it in which there are remissions—the temperature falling perhaps two or three degrees in the morning, but always remaining above the normal—belongs to the same category. We may even go further and say that in that part of Africa fever and dysentery homologate. The degrees of severity of African fevers may probably be explained by differences in the dose or intensity of the poison to which the sufferer has been exposed and the degree of congestion of the internal organs and the constitutional febrile reaction set up; but the tendency of all severe African fevers is to cause prostration and collapse, to be attended by recurrences and relapses, and to give rise to congestive or inflammatory swelling of the liver and spleen and, not infrequently, to blood-clotting or thrombi in the large vessels of the thoracic or abdominal organs. The explanation of the reason why fresh arrivals in tropical or sub-tropical climates are so liable to attacks of fever—and that they are peculiarly liable is recognised by such expressions as "seasoning fever" so commonly used—is probably to be sought for and found in two directions. The new-comer has to rapidly accommodate his system to a perfectly new environment of a trying physiological kind, while the native population or residents in a place have acquired a relative immunity or tolerance of climatic disease-causes by long exposure to them. Where the exposure has been to some concentrated form of malarial poison the constitutional reaction will be proportionately rapid in its manifestation and severe, or even fatal, in its effects; whereas, when smaller amounts or repeated very minute doses of the disease-cause have from time to time been imbibed, the morbid phenomena set up

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are not only less in amount but later in appearing, the latent period is longer, and the manifestation of the disease depends probably upon the occurrence of some exciting cause or other. It is quite possible that Prince Henry of Battenberg and Major Ferguson, for example, may have, for all we know, contracted their diseases as the result of one and the same exposure, the latter having imbibed the larger or more concentrated dose. The description given us of the unfortunate Prince's illness would indicate that it was the outcome of a severe malarial infection. It was recognised from the first that this was so, and he was, much to his disappointment and against his will, wisely ordered to return at once to the coast. The rise in temperature and other symptoms were indicative of a severe attack, and when the Prince reached Prahsu he was in a prostrate condition, his temperature reaching 105° F., which was much reduced by judicious sponging. On reaching Mansu the temperature had again increased, reaching 106°, and his condition was even critical for a time, but there was again a fall. At Cape Coast Castle his illness had quite naturally been followed by some symptoms of nervous and vascular prostration, but he rallied after his embarkation for Madeira and apparently expressed himself as hopeful of recovery. Unhappily, this was not to be. We do not know what ranges of temperature the temperature-chart showed, but we do know that the cause of the fatal illness had not, and unfortunately could not, have been eradicated, that there was a relapse with attendant exhaustion, and that the patient peacefully passed away. In the absence of positive information we may conjecture that there was some blood-clotting of an internal organ which, in the Prince's state of nervous prostration and physical enfeeblement, caused his death, to the extreme regret of all those about him and subsequently, when the fact became known, to that of this and other nations. It is quite untrue, as we know on the highest authority, that his Royal Highness was hurried down from the front in deference to any order from this country. All that was done for the Prince was under the best medical advice available, and entirely, of course, in his interest.

THE STATUS OF MEDICAL OFFICERS OF HEALTH.

THE county borough of Wigan had recently occasion to appoint a medical officer of health, and the sanitary committee recommended that a gentleman should be appointed, at a salary of £300 per annum, to give his whole time to his duties, including attendance upon the patients in the Borough Fever Hospital. The report of the sanitary committee was presented to the town council and led to an animated discussion. One of the members thought the salary was too small, whilst another urged that there were plenty of ambitious medical men who "would be glad to accept the post," and who would give "them, at any rate, four or five years of his services, and they would reap the benefit of it." The majority of the members appeared to agree with Mr. Alderman Richards, who objected to employing the whole time of a medical officer, and who regarded the proposals of the sanitary committee as "a scandalous waste of public money." Waxing eloquent, the worthy alderman is reported to have said that in four years the medical officer's salary, if increased at the rate of £25 per year, "would be brought up to the level of the borough treasurer, the gas engineer, the town clerk, and the borough engineer. Now, all these gentlemen would have a great deal more to perform than the medical officer of health, and their duties required *a much higher rate of ability*." There is a refreshing air of candour about the latter statement, and it is noteworthy that it was received with expressions of approval. Is this the sum total of the results of the efforts of the General Medical Council to secure the better qualifications of applicants for public health appointments? After spending four years at least in the study of medicine and surgery, and an additional year in grappling with the problems of public health, and so qualifying himself to take charge of a fever hospital and to look after the public health of a county borough, it is depressing to be assured on such eminent authority that the duties required of him do not need so much ability as is necessary for managing a gasworks or keeping roads in repair. Either Mr. Alderman Richards is wrong, or the General Medical Council is over-rating the amount of knowledge necessary to discharge the duties of a medical officer of health. What, however, can we expect from a town which, according to a Local Government report dated 1892, during the prevalence of an epidemic of typhus fever, burnt the effigy of the chairman of the sanitary committee because he advocated the erection of an isolation hospital, and in which the hospital since erected is commonly known as "Phillips' Folly," Mr. Phillips being the chairman referred to? It is to be regretted that such gross ignorance should exist, but doubtless as the knowledge of the importance of sanitation and of the duties discharged by a medical officer of health become better known they will be more highly appreciated even in Wigan. We may congratulate ourselves, however, that at the present time there are few localities in the British Islands where the duties of a health officer are so lightly esteemed as in this Lancashire borough.

SKIMMED MILK AND TYPHOID FEVER.

IN THE LANCET of April 21st, 1894, attention was drawn by means of a valuable article by Dr. J. J. Welply on Creameries and Infectious Diseases to this increasingly important subject, and in the last annual report of the State Board of Health of Massachusetts there is an interesting paper from the pen of Professor Sedgwick, Ph.D., biologist to the Board, dealing with the same matter. In the autumn of 1894 an outbreak of enteric fever occurred at Marlborough, Mass., as also in the village of Payville, which abuts upon that town. Suspicion was first attached to the water-supply as a means of dissemination, but upon Professor Sedgwick visiting the district at the request of the local authorities concerned he was able to demonstrate by the geographical distribution of the cases that neither infected water nor infected sewer air was capable of explaining the outbreak. On attention being turned to the milk-supply it was discovered that in the middle of the invaded area was a "creamery," the proprietor of which bought milk from some twenty-eight different farms in the vicinity, and after separating the cream therefrom, was instrumental in distributing the skimmed milk over a considerable section of the town. This milk, owing to its cheapness, was extensively purchased by the lower classes, chiefly perhaps for cooking, but also in large part for drinking purposes. A personal visitation of the invaded houses soon established the fact that the skimmed milk service was responsible for the outbreak, and it was found that the cases were confined to those of slender means—i.e., to those who were of necessity the purchasers of the cheap skimmed milk. This last-mentioned fact considerably complicated the inquiry, inasmuch as the false pride of the people made them unwilling to admit that they were consumers of the skimmed milk. The total number of cases during the epidemic period (Aug. 1st. to Sept. 15th) was 50, including 1 case which had been imported. Of the remaining 49 no less than 47 were found to have access to the skimmed milk, buttermilk, or cream from the creamery, and it was not improbable that the remaining 2 had also partaken of the creamery milk. Of these 47 cases, 45 had access to skimmed milk, 1 to buttermilk, and 1 to cream. No cases of

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typhoid fever occurred in the farms from which the "whole" milk was supplied, and it would seem, from the absence of any specific reference to the matter, that all the cows supplying the milk were free from any diseased condition. In the creamery itself, however, there was a case of enteric fever, and, although this case was not notified until Aug. 28th—i.e., four weeks after the first case—the patient seems to have been ill for a considerable time before Aug. 28th, and an inquiry into his symptoms led Professor Sedgwick to the conclusion that his illness might not improbably have been the cause, rather than one of the consequences, of the outbreak. If this be so, it would seem that this man must have been in an infective condition somewhere about the middle of July; in further support of this view is the important fact that the man was the driver of the skimmed-milk waggon, and that he was intimately associated with the manipulation of the skimmed milk. In this outbreak, as also in the one related by Dr. Welply, to which we have already referred, there was no evidence incriminating the butter. This is a very interesting point, and it has an important bearing on the question of foreign butter and the conditions under which it is manufactured. Perchance the acidity of the butter may be hostile to the vitality of the typhoid fever bacillus. As Professor Sedgwick observes, we have yet to obtain satisfactory evidence of the conveyance of typhoid fever by this medium; it is, however, well to bear in mind the possibility of its conveyance by butter in all outbreaks of milk-borne typhoid fever.

"POISONING BY GAS IN SEWERS."

SUCH was the title of an excellent paper by Dr. John Scott Haldane which appeared in THE LANCET last Saturday, Jan. 25th. "Three deaths from inhaling sewer gas" was the heading of a paragraph which appeared in the daily papers on the following Tuesday, the 28th. Who is responsible for allowing men to jump into what proved to be death-traps at East Ham (which was the subject of Dr. Haldane's report) and as just reported at Widnes? Surely, as we hope, the men appointed to undertake this operation are warned and instructed not on any account to descend until they have ascertained whether the air in the sewer is or is not dangerous. And to decide this is a simple matter. The absence of the supporter of life—viz., oxygen—is indicated by the not very difficult experiment of lowering a candle into the sewer, or, better still, a safety lamp, since the gases in the sewer are often inflammable. The proportion of combustible gas may be ascertained by observing the extent of the luminous effect produced upon the colourless flame of Professor Clowes' hydrogen lamp, which will indicate as little as 0·5 per cent. of coal gas, and the presence of poisonous sulphuretted hydrogen is readily shown by moist lead paper. A man should not be deemed qualified to undertake the examination of sewers until he gives evidence that he can perform these simple tests. Nor in any case should a man be allowed to descend a sewer opening without a rope round his body. In regard to the sulphuretted hydrogen test we would suggest the use of a slab of plaster-of-Paris soaked in lead solution in the place of lead paper. It is extremely delicate, and is more easily and conveniently applied to the testing of man-holes, deep wells, &c., than paper. The slab dries readily, and has merely to be moistened before use. On account of its greater weight it can be lowered without touching the walls of a sewer-opening, and any stain produced by sulpuretted hydrogen gas is not obscured by contact with dirt. We strongly urge that a copy of plainly printed directions on the above lines should be placed in the hands of sewermen, and the authorities who employ them should make it their business to see that these directions are understood and will be carried out. Experience is teaching that the operations in a sewer should be conducted with just the same precautions as are imperative for the safe working of a coal mine. In the name of common humanity why is not this lesson taken to heart?

THE PERILS OF ADVERTISEMENT.

DR. KRAUSE, *privat-docent* in the Medical University of Berlin, has tendered his resignation under the following circumstances. It seems that soap is well-nigh as lavishly advertised in Germany as it is with us, and an enterprising firm of manufacturers succeeded in inducing Dr. Krause to allow his name to appear at the foot of a testimonial. The attention of the Faculty having been called to this indiscretion, Dr. Krause was called upon to furnish explanations. He declined to do so, or even to express regret, and when the Faculty, justly indignant, inflicted upon him the severest reprimand at its disposal he threw up his appointment.

MILITARY MANŒUVRES ON MANURED FIELDS.

DR. H. HENROT, Mayor of Reims, has drawn up a report on the epidemic of typhoid fever from which two regiments of dragoons quartered in his town recently suffered. Dr. Henrot is a prominent member of the Société de Médecine Publique et d'Hygiène Professionnelle and a *persona grata* at all the International Congresses of Hygiene. The *Revue d'Hygiène*, which is the organ of this influential French society of sanitary reformers, gives a summary of Dr. Henrot's report, and it contains a valuable suggestion. The dragoons were quartered in fairly healthy barracks. One of the barracks was quite a new building, and to all appearance the sanitary conditions were excellent. The water-supply was also good, though it was discovered that of 180 wine-shops in the soldiers' quarter thirty of the wine-sellers or publicans made use of well water instead of the town supply. But if these wells had been contaminated the civil population and the soldiers of the 132nd Infantry of the Line, who frequented the same wine shops, would also have suffered. Dr. Henrot explains that the contents of the *tinettes*, or portable metallic pails, and of the cesspits of the town are emptied directly and in a crude state on to cultivated land. This human manure is immediately absorbed and covered over by raking or ploughing. But last year, in consequence of the exceptionally dry weather, the earth could not be raked; there was no moisture, and, in the absence of rain, the manure was desiccated on the surface of the hard soil. During the course of the manœuvre the two regiments of dragoons passed over some of these lands. The hoofs of their 1600 horses soon trampled the manure into a fine powder, which, blowing up as dust, was breathed and swallowed by the troopers. That this dust was different from ordinary dust was rendered evident by reason of the very unpleasant odour which was noticed at the time. The manœuvres took place from Sept. 6th to Sept. 12th. Since Jan. 1st, 1895, the health of the troops had been excellent. On Sept. 20th the typhoid fever commenced. Among the 1600 dragoons who manœuvred on the field manured with human excrement there were 112 cases of typhoid fever resulting in twelve deaths. The civil population and the other troops quartered at Reims were not affected. It is also a noteworthy fact that during this epidemic pulmonary complications were also very frequent among the dragoons; and this strengthens the supposition that the poisonous nature of the dust swallowed was the cause of the mischief. Dr. Henrot is communicating with the military authorities so that precautions may be taken in the future, and soldiers be not allowed to manœuvre in dry seasons on land which has been manured with human excrement. In the

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north of France it has often been noticed that typhoid fever followed closely upon the autumn manœuvres, and there also fields are frequently manured with the crude contents of pails and cesspits. But to Dr. Henrot appertains the credit of having suggested the connexion between this cause and its probable effect.

MALINGERING IN CHILDREN.

THE typical schoolboy has long been known as a fairly skilful malingerer when occasion demands it, but his shamming is usually confined to the more homely complaints of headaches and toothaches, which are capable of rapid dispersion when the crisis which necessitated their presence is past. The children of Nassington—a village in Northamptonshire—however, go more carefully and deeply to work in order to avoid the toils of school. On account of the number of children who were kept from school because of a rash on their bodies Dr. C. N. Elliott, the medical officer of health of that district, was asked to examine them with a view to finding out the nature of the strange disease. His report showed that the whole affair was a case of malingering. The children, about twenty-five in number, were suffering from no real disease, but in order to stay away from school they had rubbed their hands and arms with the juice of the plant called "Patty Spurge." The result of this was that a vesicular eruption appeared which in most of the cases resembled a herpetic eruption, but in some there were blisters as large as half-a-crown. As the children appear to be studying the physiological effects of plants a closer knowledge of the birch-tree and its branches might possibly divert their energies into another channel or at any rate dull their keenness for practical botany.

DEFECTIVE DEVELOPMENT OF THE CEREBELLUM.

IN the recently issued number of *Brain* Dr. Risien Russell publishes an account of a curious case of mal-development of the cerebellum in a puppy, and also gives an account of the naked-eye and microscopic appearances of the diseased organ. The puppy was one of a litter all similarly affected. The parents were healthy, and were, indeed, prize dogs. During life there was great incoördination, so that in walking the animal fell sometimes in one direction, sometimes in another, and while standing, or even sitting, there was almost constant oscillation of the head and trunk. There was thus clear indication of cerebellar disease, but nothing to suggest that one side was more affected than the other. The animal was killed by an overdose of chloroform and its nervous system carefully examined. The specimen was placed in Müller's fluid, and sections were subsequently cut in celloidin and stained in various ways. On examination the cerebellum was found to be much smaller than it should have been, being about three-quarters the size of the cerebellum in a normal puppy of the same size. But it was quite symmetrical, and its convolutions and sulci appeared to be quite as well differentiated as in the normal organ. Section through it showed the proportions of grey and white matter to be unaltered in some places, the grey to preponderate in some and to be much diminished in others. Microscopic examination of different parts confirmed this and further showed the different layers of the cortex to be variously altered in their relation to each other. Thus in one part the molecular layer was three or four times the proper depth as compared with the normal or with the granular layer; in another the extent, both absolute and relative, of the two layers was as nearly as possible normal, while in other places the molecular layer was of much greater depth than normal, the transition between this condition and that in which the molecular layer was much smaller than normal being quite abrupt. The same applies to the granular layer, and there were great changes in the appearance and arrangement of the cells of Purkinje. In large areas of the cerebellum these were completely absent, in other parts an occasional cell was visible, while in a few places irregular groups or clusters were present. In some places there was a tendency to the usual arrangement of these cells in a single line between the molecular and granular layers, but even in those places the distances between the cells were very irregular and often much greater than normal. The cells also were altered much in both size and shape. They were fewer in number in the lateral lobes of the cerebellum, whereas in the middle lobe they were more plentiful and also more regular in arrangement. The medulla, spinal cord, red nucleus, optic thalamus, cerebral cortex, and auditory nerve and labyrinth showed no changes from the normal, and even the cerebellar peduncles and the corpus dentatum, except that the former were smaller than usual, showed no alteration. Dr. Russell, in conclusion, contrasts the condition found in this case with that which existed in a cat with a unilateral defect of the cerebellum which he had recently examined. In the latter there was marked affection of the corpus dentatum on one side and of the opposite inferior olive, each being much reduced in size, the latter, indeed, represented by only a few cells, whereas in the puppy the defect was limited to the cortex. From a consideration of both cases it is evident that a close relation subsists between the corpus dentatum and inferior olive, while the inferior olive and the cells of Purkinje seem to be quite independent of each other.

LUDWIG AND VITALISM.

PROFESSOR BURDON-SANDERSON has given an interesting lecture at the Royal Institution on Ludwig and the valuable contributions which he made to science. The lecturer particularly spoke of the usefulness of Ludwig's habit in referring natural phenomena to their various natural laws, and so tending to do away with the methods of explaining the unknown action of phenomena by meaningless terms and phrases. One such term much used before Ludwig's time was that of "vitalism," and whenever some difficulty had to be explained it was managed by saying that the action in question was due to a "vital force," which was a state of things which necessarily hampered any true advance of scientific work. Ludwig and his contemporaries, recognising the shallowness of this form of explanation, contended that no explanation of any observed process or event was to be accepted excepting that which consisted in referring it to chemical or physical laws. Thus Ludwig, among his many works, may be said to have materially helped to place science on a sounder basis than existed before his time.

NOXIOUS TRADES.

WE earnestly commend to the notice of the Departmental Committee appointed to inquire into dangerous trades, whose invitation for witnesses we announced two weeks ago, the liabilities of those engaged in compounding arsenical preparations used for dipping sheep. According to the *West Ham Herald* large quantities of arsenical sheep-dip are made in certain East-end factories, where, "in spite of every precaution—the use of overalls, silk handkerchiefs for the face, proper ventilation, and washing arrangements—the deadly powder penetrates to the skin, works into the finger-nails, and clogs the men's eyes." It is impossible for men to work long under these horrible conditions without bringing their health to absolute ruin. We have frequently examined these powders, and find that the

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composition of a great number of them is sulphur in intimate mixture with white arsenic combined with alkali to make it freely soluble. It is, in fact, crude arsenite of soda, a most powerful poison, mixed with sulphur. It is an excellent remedy, we believe, for scab and tick, but owing to the extreme risk attending the exposure of the sheep to such a deadly compound, it is now being replaced very largely by certain compounds of equal value as a remedy, but otherwise comparatively innocuous. We refer to the solutions of tar acids (chiefly cresylic) in alkali which form milky fluids with water. Is there, then, any necessity for further carrying on such a dangerous trade as the compounding of arsenic, sulphur, and alkali exclusively for sheep-dipping purposes when equally effective yet harmless preparations are available? We think not. At any rate, if it must be continued it is for the Departmental Committee to investigate and report upon the disastrous effects which the manufacture of this compound has upon the health of the operatives, and to urge the Government to put into force measures to immediately stop such dangerous employment.

THE PUBLIC AND DISINFECTION.

THAT the man in the street has yet much to learn concerning his duty towards his neighbour is shown by a case which came before Mr. Plowden at Marylebone Police-court upon Tuesday last. William Chapman owned or leased a house in Mansfield-road, and in this house his child Frank Chapman had some six weeks ago suffered from diphtheria. Notice had been given that the premises were to be disinfected, but Chapman had disregarded the notice. To make matters worse, he had transferred the house to a Mrs. Allen, who was ignorant that any infectious disease had occurred there, and the premises were used as a public-house. Thus there was every advantage for the spread of infection. We are glad to see that a fine of £5 and £2 2*s*. costs was inflicted. Those who wilfully refuse to take measures for preventing the spread of infection are generally the first to cry out when the sanitary authorities take precautionary measures, but if householders will not comply with the requirements of the law some one else must do it for them.

EPIDEMIC POLIOMYELITIS.

IN the *Journal of the American Medical Association* of Jan. 4th is an article by Dr. C. S. Caverly on the results of an investigation of an epidemic of acute anterior poliomyelitis which prevailed in the State of Vermont, chiefly in a single valley, during the summer of 1894. At the time there was some doubt as to the diagnosis of the disease, but further investigations and opinions have cleared up difficulties of diagnosis which at first existed. The epidemic invaded the valley in the early summer. It prevailed with increasing severity during July, apparently reached its climax about Aug. 1st, and steadily declined until about Oct. 1st, the last case occurring early in that month. The early summer was popularly considered to be unusually hot and dry, but the statistics of humidity and temperature show little variation from the average. The territory mainly covered by this outbreak is a portion of the Otter Creek Valley about thirty miles long and from twelve to fifteen miles wide. The city of Rutland is the chief town of the area. The towns affected have a combined population of 26,000. The starting point of the epidemic was at Rutland. In this city occurred 55 of the 132 cases of which Dr. Caverly has notes; 27 of the remainder occurred in a small town, Proctor, with a population one-sixth that of Rutland. This town suffered the most of all in the valley. The remaining 50 cases were scattered over the rural districts in fourteen towns. Defective drainage in general did not seem to influence the distribution of the disease. The water-supply was excluded as an etiological factor. That the general sanitary surroundings and methods of living were in any wise responsible for the outbreak is also more than doubtful, since the disease showed no partiality to that class of the population whose habits and surroundings are the most insanitary. The geological formation of the valley is not peculiar. The prevailing formation is limestone. Dr. Caverly gives four cases illustrative of the types met with. Of the 132 cases 18 died; 10 deaths were among males and 5 among females; the sex is not stated in 3. Seven of those who died were known to have been under six years of age, three between six and fourteen, while one died at nineteen, two at twenty-one, one at twenty-two, and one at thirty-eight years. The percentage of deaths among adults was high. Thirty cases were known to be maimed for from six to nine months after the initial attack. The muscular atrophy in most of these cases was marked. It is an interesting fact that during this epidemic, and in the same geographical area, an acute nervous disease paralytic in its nature affected domestic animals. Horses, dogs, and fowls died with these symptoms. This epidemic is of importance in several particulars: (1) from the simple fact that it was an epidemic of acute anterior poliomyelitis; (2) from the great number of cases occurring; and (3) from the simultaneous affection of the lower animals.

THE SOIL.

THE Hungarian Journal *Gyogyászat* (Therapy) of Dec. 28th, 1895, gives a long abstract of the address by Dr. Poore on "The Soil in Relation to Health and Disease," which appeared in our columns on Dec. 14th, 1895. In reference to this paper and to Professor Haffkine's communication on preventive inoculations against cholera the editor, Dr. Schächter, in his leading article says: "There is a most interesting and important question which an article in our columns deals with—viz., The Soil in its Relation to Disease. The Pathogenity of the Soil was the argument for the propagation of cremation at our last Congress of Hygiene, but the unbiased hygienist does not see the fountain head of diseases in the soil. Quite contrary, he sees the fountains of life and health. He has from a higher point of view that 'love of the earth' which Zola believes is instinctive in human nature. And if once the great hygienic importance of the soil is better appreciated all round, it will perhaps become superfluous to speak more of preventive inoculations against cholera." Dr. Poore's work on this subject appears to have been much appreciated in Hungary, the prosperity of which is mainly dependent upon agriculture. We are pleased to hear that a Hungarian Translation of Dr. Poore's "Essays on Rural Hygiene" is shortly to make its appearance.

THE BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.

THE inaugural meeting and conversazione of the British Balneological and Climatological Society were held at Limmer's Hotel on Jan. 22nd. This new society, which was founded on Nov. 9th last with the object of promoting good fellowship among medical practitioners connected with British health resorts and with other branches of the profession, to encourage the study of balneo-therapeutics and medical climatology, and to advocate and sustain within the profession the interests and claims of British climatology, promises to hold an important place among the various societies which have for their object the progress of the healing art. Sir Edward H. Sieveking is Hon. President of the society, and among the list of Hon. Vice-Presidents are the names of many eminent members of the profession. Dr. Henry Lewis of Folkestone is the acting President. The inaugural meeting was a most successful gathering, the proceedings being marked by an entire

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absence of that mistrust and jealousy which have been said to exist among practitioners of rival health resorts. In the absence of Dr. Ord the opening address was delivered by Dr. Symes Thompson. The Hon. Secretaries of the society are Dr. Septimus Sunderland and Mr. Aylmer A. Macfarlane. A report of the proceedings is given in another column.

A RIGHTEOUS JUDGMENT.

WE are glad to see that justice has at last overtaken one of the many scoundrels who tell lies about the generative faculties. At Marlborough-street, upon Jan. 28th, Henry Walters, trading under the name of Albert Bell at 175, Wardour-street, was fined £20 and six guineas costs for using the titles M.D. and "Doctor" without being a duly qualified medical man. This is wholesome discipline for Henry Walters. He is one of the infamous creatures who make money by distributing filthy pamphlets through the post. He trades upon weak-minded individuals' fear by talking nonsense about spermatorrhœa, and advises the use of a "Self Restorer," which, as his counsel admitted in court, he recommended as curing anything and everything in a month. Henry Walters is liar and a swindler, and we should be heartily glad to see a Bill passed which would render it legal for him and the rest of the "self-abuse" curing (!) crew to be soundly flogged.

INTUSSUSCEPTION IN INFANTS.

THE treatment to be adopted in cases of intussusception occurring in very young children has for some years been much debated. There are those who advocate distension of the bowel by air or liquid, and who consider that laparotomy should never be performed. The upholders of this treatment are now few in number. A second group of surgeons urge that the time spent in inflation and injection is time wasted, that the method itself is often the cause of great danger to the patient, and that it interferes with the success of a subsequent laparotomy. These claim that laparotomy should be performed at the earliest possible moment. In the *New York Medical Record* of Jan. 18th is printed a paper by Dr. Frederick H. Wiggin of New York, read before the New York Academy of Medicine. In this he advocates strongly what may be called "primary laparotomy" for intussusception in infants. He supports his opinion with the records of 103 cases which he has collected. In THE LANCET of last year[1] Mr. E. W. Roughton published an interesting case in support of primary laparotomy and urged many arguments in its favour. But there is yet a third course, and that is the one which we consider to be preferable. If carefully carried out, and if employed within the first forty-eight hours after the commencement of symptoms, inflation and injection are harmless; if they fail, laparotomy may be at once performed without the likelihood of its success having been at all diminished. That distension can effect a cure in many cases of intussusception no one will deny, but it is equally certain that distension, if employed for too long a time or too energetically or at too late a stage, when the intestinal wall has been weakened, may result in the rupture of the bowel and death of the patient. With inflation it is very difficult to estimate the pressure employed, but with injection, if a funnel be used, the pressure exerted by the liquid depends on the height to which the funnel is raised, and it is important to remember that each foot of height is equal to a pressure of half a pound per square inch of bowel wall; the funnel should never be higher than 2 ft., causing a pressure of one pound per square inch. If, also, this method be limited to cases seen within forty-eight hours of the onset of symptoms, and be not applied for more than, say, half an hour, the child will not be injured at all, and the chance of success of the laparotomy which should immediately follow if the injection be unsuccessful will not be in any way impaired. It can hardly be doubted that abdominal section in infants does cause a great amount of shock, sufficient in some cases to lead to death, therefore it is not advisable to have recourse to such a treatment until slighter and safer methods have been given a fair trial.

[1] THE LANCET, Feb. 23rd and March 2nd, 1895.

MEDICAL CERTIFICATES AND THE SCHOOL BOARD.

IT has been arranged to hold a conference on the above subject at 20, Hanover-square, on Thursday, Feb. 6th, at 2.30 o'clock in the afternoon. All who are interested in the subject are invited to attend. We have devoted much time and space to the consideration of this subject, and if the School Board can be brought to see sense and to behave properly it will only be by the thorough organisation of the profession that body has insulted. Hence we hope that the attendance of medical men will be large.

THE NEW PHOTOGRAPHIC DISCOVERY.

THE newly discovered radiations which proceed from the vacuum tube under the influence of the electric discharge are rapidly opening up, as we suggested two or three weeks ago, an entirely new resource in surgery. It is reported from Vienna, for example, that Professor Neusser has obtained photographs showing gall-stones *in situ* and a calculus in the bladder, taken by means of what Professor Roentgen has called the "x" rays. Again, it is stated that it has been decided to utilise the same phenomenon by bringing it into practical use in the hospitals throughout Belgium. We had hardly anticipated the achievement of such important results in medical science so soon, and it is to be hoped that English investigators will not be behind their co-workers abroad in the similar practical application of this most remarkable discovery.

CORTICAL REPRESENTATION OF THE MOVEMENTS OF THE VOCAL CORDS.

IN the *Proceedings of the Royal Society* an abstract of a paper by Dr. Risien Russell appears, which is of peculiar interest, as it gives new information as to the cortical representation of the movements of the vocal cords. Hitherto an adductor centre only has been supposed to exist, but Dr. Russell's researches make it evident that other movements also are represented in the cortex. It was found that both in the dog and also in the cat there existed a focus, excitation of which resulted in adduction of the cords, and near it another, excitation of which resulted in abduction of the cords. The movements in the cat were quite easy to differentiate. In the dog, however, it was only after the adductor fibres in the recurrent laryngeal nerve had been cut that abduction could be produced. Sometimes, however, it was not necessary to do this, as it was found possible to evoke the movement without it. Another effect also was found to be produced in the cords—viz., what is called acceleration of their movements—which it was found difficult to differentiate from abduction. It was further found that in the anterior composite gyrus below the abductor centre a focus existed, excitation of which caused the cords to be first brought into a position of moderate adduction, to which were superadded rapid, short, to-and-fro excursions. Further, it was found that in the peripheral part of the area marked out by Spencer as related to arrest of respiration three foci existed, the most anterior of which was responsible for arrest of the cords in adduction—i.e., in the expiratory stage of their excursions. Excitation of the area behind

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this caused arrest in abduction—their inspiratory position; and stimulation of the most posterior focus caused intensification combined with acceleration of the movements of the cords when stimulated. Many other little points are dealt with in this paper, but the main results are those given above, and it will be seen that they constitute an important addition to the facts of cerebral localisation. Dr. Russell is to be congratulated on the fact that the centre for the vocal cord movements has now been differentiated by him in a manner similar to that in which he has differentiated that for the ocular movements.

ANALYSTS' CERTIFICATES: AN IMPORTANT DECISION.

PUBLIC analysts would do well to note an important decision given in the High Courts on Monday last. It appears that proceedings were taken some time ago against a vendor of milk in view of the report of the analyst that the milk contained "5 per cent. of added water." The analyst did not think it was necessary to say more, whereas it was urged in defence that the prosecution must fail inasmuch as the certificate did not furnish any particulars as to the component parts of the milk. That being so, the statement of the analyst that the milk contained 5 per cent. of added water was only an expression of opinion and precluded others from interpreting for themselves the results of the analysis upon which such an opinion was based. The magistrate dismissed the case, and his decision was upheld by the higher court. Mr. Justices Hawkins and Kennedy thought that as it was admitted that milk naturally contained water it was necessary that the magistrate should know what standard the analyst took. It would be wrong, they considered, to convict on a mere statement that there was 5 per cent. of added water. The analysis should be clear and should afford materials on which the justices and the accused also might know how the results had been arrived at. We are under the impression that some public analysts hold the view that figures are better excluded from a certificate as likely to confuse rather than clear the issues. According, however, to this recent ruling such a certificate would not conform to the requirements of the Act.

THE VENTILATION OF INDIAN FACTORIES.

THE processes of spinning and weaving can only be carried on satisfactorily in a moist, steamy atmosphere, and in India, where the air is usually very dry, the unrestricted ventilation of textile factories becomes for this reason almost impracticable. The requisite moistening of the atmosphere in such factories has hitherto been obtained by watering the floor, all doors and windows being closed in order to exclude the dry external air. Of course, the health of the workpeople suffers under such conditions, but according to the *Times of India* of Dec. 26th, 1895, a remedy seems now to be available, for a remarkable experiment in liberal ventilation with moistened air has been carried out at a large cotton mill in the interior of the country. The air-supply was furnished by a fan worked by a steam-engine, and was delivered at the rate of 1,100,000 cubic feet per hour. Four hygrometric observations, made at intervals of several hours, showed that the dampness of the air issuing from the distribution-pipes in the weaving-room varied from 85 per cent. of saturation as a maximum to 69 per cent. of saturation as a minimum, corresponding to an increase of the humidity of the external air by an amount varying from 23 per cent. at 7.15 A.M. to 37 per cent. at 2.45 P.M. The designs and specifications of this ventilating and moistening apparatus were furnished by Mr. John Wallace, C.E., of Bombay, editor of the *Indian Textile Journal*, who has also devised an automatic means of regulating the amount of humidity imparted to the air. This is the first successful attempt to moisten large volumes of dry air up to the requirements of a cotton factory in India, and, as already indicated, the principle employed is the propulsion or "plenum" system, which was described and commended by THE LANCET Special Sanitary Commission on the Ventilation of Hospitals and the Treatment of Infected Air.[1] The unwholesomeness of cotton factories in India was referred to in our columns on a former occasion,[2] and all sanitarians will welcome an innovation fraught with so much benefit for the workers.

LOGIC AND LIGHTS.

EVERY now and then we come across paragraphs in newspapers headed, "Reading in Bed." Then follows a horrifying account about some one being found dead, with the bedclothes smouldering and the room full of smoke, and the paragraph writer then proceeds to dilate upon the danger of reading in bed. His logic is hopelessly at fault. Set out syllogistically it is as follows: "Some artificial lights will set fire to a bed. Those who read in bed use artificial lights. Those who read in bed will set the bed on fire." This argument, involving what is known as the undistributed middle, violates the fourth canon of the syllogism. The last case of this kind which has come to hand is that of a woman who read in bed holding a candle in her hand. Presumably she dropped asleep and the bed caught fire, with the result that she was suffocated. This was only to be expected; but if people would only make it a rule to have some sort of light at some distance away from the bed by means of which they can read or work while in bed we should hear of no more of these accidents. A candle or lamp on a table, given that the candlestick and table or lamp and table are heavy enough not to be upset easily, is safe. A gas-bracket on the wall, or, better than all, an electric light, is again safe. Little portable accumulators can easily be obtained and give quite enough light to read by. The lamp is detachable and absolutely safe. Reading in bed is with certain obvious precautions no more dangerous than reading anywhere else.

A DANGEROUS VERMIN-KILLER.

WE are constantly reminded that however unexceptionable a principle may be it has to be interpreted by its applications. An inquest was held in Silvertown last Tuesday which affords a striking confirmation of this very practical truth. The subject of inquiry was a little girl who had died suddenly, with all the signs of irritant poisoning, after eating a piece of cake. Several other children had shared the mischievous dainty and had subsequently become ill with similar symptoms. It proved on examination that the cake was abundantly poisonous, and had been placed in what was supposed to be a safe place as a bait for mice. No more natural conclusion could have been reached by examination of these facts than that arrived at by the presiding coroner, that the truest precaution to be adopted with regard to this poisonous cake was to abandon its use. How it came about that a virulent poison should ever have been sold in a form, not only rendering its detection impossible, but making it positively attractive to any child who might meet with it, we can hardly imagine. Perhaps no other form would equally attract mice, but this is by no means clear. None at all events could have been devised that would more surely conduce to such an accident as that which actually occurred. The custom of poisoning household vermin is, for one important reason, not the best mode of destroying them, this method being accountable for their death and subsequent putrescence beneath the floors or wainscoting

[1] THE LANCET, May 11th, 1895, p. 1203.
[2] THE LANCET, Dec. 1st, 1894, p. 1295.

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of living rooms. The baited trap and the domestic cat are means at once effectual and cleanly, and are thus to be preferred on sanitary grounds. The sad incident above recorded may serve as a reminder to local authorities everywhere that poisons when used must not be permitted in such a form as to disguise their real character from children or others into whose hands they may fall.

THE DEGREE OF MASTER IN SURGERY AT CAMBRIDGE UNIVERSITY.

THE standard for this degree, which has now been established for some years, has been very high, the course of study required very long, and the examination, which includes extemporary essays on surgical subjects, is very difficult, consequently few candidates have aspired to it, and fewer still have attained it. In this respect, therefore, it can scarcely be said to have proved a success. It is not sought as a qualification to practise, for those only are candidates who have passed the examinations and taken the degrees of Bachelor of Medicine and Bachelor of Surgery, but as an honorary degree only; and students who have gone through the processes and examinations requisite for M.B. and B.C. are reluctant, or have not the time, to enter upon the path which leads to M.C. It is proposed, therefore, to open another, an *alternative*, avenue to this degree, which, without requiring further examination than those already passed for B.C., will test the qualification of the candidate in another way—viz., in the main, by the estimate formed by a duly appointed committee of the printed or written contributions to the science and art of surgery which may be submitted to them. The proposal, which is based upon a plan for granting the Doctorate in Science and Letters in the University, which has been found to work well, was favourably received in a discussion on the subject in the Senate on Jan. 23rd; and Sir George Humphry, the Professor of Surgery, said he was glad that it had been so received, for the degree of Master in Surgery was one of the highest honours that was obtainable in surgery in the United Kingdom, and there was no fear of its being lowered by the regulation proposed. He hoped that in future it would be more frequently sought, it being a matter of regret that so few of the graduates of the University were candidates for this degree.

METASTATIC CEREBELLAR TUMOUR.

IN the *Boston Medical and Surgical Journal* Dr. Garceau publishes the case of a patient, a woman forty-nine years of age, who had had two years before she came under Dr. Garceau's observation a carcinomatous tumour removed from her right breast. The tumour was as big as a small apple, and the axillary glands had been slightly involved, and also removed. It is said that her vision began to be affected shortly after the operation, but her general health remained good until she suddenly began to suffer from agonising pain in the upper occipital region radiating into each eye. The pain was constant, and she could only experience relative relief by lying on the left side with the knees flexed and remaining perfectly still, as the least movement intensified the pain. Vertigo and vomiting accompanied the pain. There was no evidence of recurrence at the original seat of tumour in the breast. The pupils were equal; hearing was normal, and questions were answered intelligently and coherently, but slowly and with effort. There was marked somnolence; vision varied, being good on some days and apparently entirely absent on others, and there was found to be a marked condition of "choked disc." When she became very weak the patient had a sensation as though she were sinking into an abyss. It was concluded that a tumour was present in the cerebellum, but the patient declined operation. She lived nine weeks after the onset of the occipital pain. The vomiting was controlled by cocaine, and doses of morphia had to be given for relief of the pain. On the day before she died she had two severe convulsions affecting the right arm, leg, and face, and another fit on the day on which she died. At the necropsy a carcinomatous growth was found occupying the outer part of the right half of the cerebellum. This was held loosely in position by disintegrated cerebellar matter, and among this there were several small nodules, evidently similar in structure to the larger growth. In the cerebrum, also, two tumours were found, one posteriorly just over the cerebellar growth and one occupying the Rolandic region of the left hemisphere. The latter, no doubt, was the cause of the convulsions which occurred just before death.

THE QUESTION OF THE COMMUNION CUP.

WE have referred to the matter of the possibility of infection from the use of a common chalice upon more than one occasion. The danger is so slight and the controversy so likely to give pain to many people that we think the matter might well be allowed to drop. However, others think differently, and we learn through a Nonconformist print that a most complicated form of chalice has been "invented" in America. We do not propose to go into details upon the construction of the chalice. Suffice it is say that the use of such an "ornament" might well cause cavillers of the Prynne type to exclaim "Hocus-pocus" with some justification. It appears to us that there are two simple ways of avoiding any danger of infection from the chalice; the one is the Roman Catholic plan of communion in one kind only, and the other the primitive method of communion by "intinction"—i.e., the dipping of the bread or wafer into the wine and the administering it to the communicant direct from the fingers of the priest. This method, which was fairly general in the West during the twelfth century, we believe still exists in some of the Eastern churches, though more generally a spoon is used, which is open to the same objections as the common chalice. Dignity, a meaning ritual, and reverence should be the notes of a true religious service, and the use of so elaborate a chalice as the one in question is calculated to give great offence and to bring about far greater evils than the one it is intended to cure.

EXTORTIONATE CHARGES FOR REFRESHMENTS.

MOST of us who have paid any attention to the subject must at some time or other have had occasion to note the extraordinary price which may be attached to even the simplest form of refreshment. It appears as if demand were in this market not only the stimulus of supply, but sometimes also the signal for extortion. More than one traveller has of late discussed this question in the daily press, and we cannot but sympathise with their very natural and just objection to be fleeced in a bargain which allows of no comparison in values. Sixpenny glasses of the most ordinary mineral water, sixpenny teacupfulls of quite ordinary tea—probably we have not reached the outer limit of cost—bread, butter, and the like sold at twice the usual rate or more—these are not the conditions of a trade intended for a future of public service. They are still met with, nevertheless, and if little favoured by practical persons acquainted with the value of money, receive at the hands of their more negligent fellows a degree of indulgence which is at least astonishing. Considerations of fair exchange are never trivial. The purchaser, no matter what may be the dimensions of his pocket, owes to himself a due regard for these. The salesman must sooner or later, in defence of his custom, acknowledge a like necessity. Such considerations also, when taken in connexion with the sale of non-intoxicant beverages, have a great deal to do with wholesome habits

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of life. It is therefore to be hoped as much in the interest of healthy digestion as of the refreshment purveyors that the prohibitory tariff still occasionally adhered to by the public caterer will before long be regulated by a truer ideal of relative values.

THE Council of the Medical Society of London has adopted the report of the committee, and has awarded the Fothergillian Prize for 1896 to Professor Victor Horsley, F.R.S., "in recognition of the value of his series of papers and demonstrations on the use of the Thyroid Gland and its Special Application in the Treatment of Myxœdema." The presentation of the medal will be made by the President of the society, Sir James Crichton Browne, at the anniversary dinner at the Whitehall Rooms on Saturday, March 7th; and Professor Horsley will give an address on "The Physiology and Pathology of the Thyroid Gland" at the meeting of the society on Monday, March 9th, at 8.30 P.M. As we have already announced, the Lettsomian Lectures for the present session will be delivered by Mr. W. Watson Cheyne, F.R.C.S.Eng., F.R.S., on Mondays, Feb. 3rd and 17th, and March 2nd, at 8.30 P.M., at 11, Chandos-street, W. The general subject of the lectures is—The Objects and Limits of Operations for Cancer.

IT is announced that a special discussion will be held at the rooms of the Royal Medical and Chirurgical Society, 20, Hanover-square, on Tuesday evening, Feb. 11th, on the "Parasite of Malaria." The discussion will be introduced by a paper by Dr. George Thin and Dr. R. J. Marshall, illustrated by microscopical drawings of the parasite and by diagrams. In view of the excellent work already done by those who have studied the disease in Spain and Italy, and on the west and east coasts of Africa, such a subject cannot fail to provoke discussion that should bring to light facts of the greatest interest, whether from a clinical or pathological standpoint.

MR. GEORGE NEWMAN, M.D., D.P.H. Camb., Gunning Scholar in Public Health (University of Edinburgh) and Prizeman of the National Leprosy Committee for report on the History and Causes of Decline of Endemic Leprosy in Britain, has been appointed by the council to be Demonstrator of Bacteriology in King's College, London.

WE are glad to learn that after much delay and protracted negotiations the alteration in the buildings of the General Medical Council is proceeding very satisfactorily. The buildings will be completed in accordance with the original plans and in time, it is hoped and believed, for the next meeting.

A PETITION exclusively signed by women of Cardiff has been sent to the Home Secretary recommending the appointment of a woman when the time arrives for the selection of a successor to the present prison surgeon, who has resigned.

BY the death of His Highness the Maharaja of Bhownugger the Indian Empire has lost her best-known native administrator, his enlightened and energetic rule earning for his State the title of the model native State.

HARROGATE ROYAL BATH HOSPITAL.—The annual meeting of the governors of the Harrogate Royal Bath Hospital and Rawson Convalescent Home was held at the institution on Jan. 23rd, the Earl of Harewood presiding. The report showed that during 1895 there were 870 patients admitted to the hospital and 230 admitted to the home, making a total of 1100, as compared with 1033 in the previous year.

THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER V.

The Cato-street Conspiracy.—The Execution of the Ringleaders.—A Wicked Accusation.—A Threatening Letter.—The Origin of the Outrage in Argyll-street.—Tom Parker and the Execution of Thistlewood and his followers.

ON the evening of Feb. 23rd, 1820, there were arrested in a loft in Cato-street, Edgware-road, certain members of a desperate band who had leagued themselves together to assassinate the King's Ministers. Cato-street is now named Horace-street and is the second turning on the right in John-street West from the Edgware-road. It starts with an archway under an old public house and is a blind alley. The real origin of the plot and the real purpose of the conspirators were never made very clear. Want counted for something, for not a penny was found upon any of those arrested. A form of general discontent, euphoniously termed "political," that bitter, vague disaffection, bred of bad circumstances and nurtured by inflammatory speeches, counted for more. As far as Thistlewood, the leader of the gang, went, vanity counted for most.

King George III. died on Jan. 29th, 1820, and was succeeded by a son who, whatever his claims to good breeding and his evidences of good nature, could not be called a good man or be expected to make a good king. The death of the aged monarch was a signal to the conspirators to strike their blow. Doubtless they hoped that the inevitable muddle in public affairs consequent upon the devolution of the crown upon the Regent would assist in the wide-spread panic that they intended to create by the assassination of certain of the virtual rulers of the country, and this hope determined the date of their *coup*. They had long been making their preparations; muskets, pistols, cutlasses, and pikes had been secreted in a loft over a range of stables and coach-houses in Cato-street. Here, on the evening of Feb. 23rd, 1820, they assembled to the number of thirty, with the deliberate intention of making a murderous attack upon certain members of the Cabinet who were engaged to dine with Lord Harrowby, the Lord Privy Seal, in Grosvenor-square. The members of the Cabinet who were Lord Harrowby's proposed guests that night were: Lord Liverpool, the Premier; Lord Eldon, the Lord Chancellor; Lord Castlereagh, the Secretary of State for Foreign Affairs, and Mr. Vansittart, Lord Sidmouth, Sir Robert Peel, and George Canning; but of these it was Lord Castlereagh whose life was especially aimed at. Thirty conspirators in a vile cause and in desperately poor circumstances could hardly be expected to keep good faith with each other, and the scheme was revealed to the Bow-street authorities. A raid was made on the loft at the hour of rendezvous, and the misguided wretches were caught in the act of arming themselves. After a furious *mêlée*, in which one Bow-street officer was shot dead, certain of the ringleaders were captured. Arthur Thistlewood, a commissioned officer in the militia and the only man of education who was involved in the plot—he is said to have served his time as an apothecary—escaped, but the price of £1000 was put on his head and he was captured the next day.

At the trial a man named Monument, a shoemaker, turned King's evidence with the result that Thistlewood, Davidson, a negro whose seditious speeches had counted every whit as

[1] Chapters I., II., III., and IV. were published in THE LANCET of Jan. 4th, 11th, 18th, and 25th respectively.

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much in the organisation of the plot as the former's social position and superior learning, Ings a butcher, Tidd a shoemaker, and a man named Brunt were condemned to be hanged, drawn, and quartered, while five of their colleagues were sentenced to penal servitude for life. The condemned men were publicly executed at Newgate in the presence of an enormous crowd on May Day, 1820. The bodies were allowed to hang for half-an-hour, when they were taken down and in formal accordance with the words of the sentence a masked man stepped on to the scaffold and decapitated them, handing each severed head to an assistant who held it up and proclaimed it to the crowd by the name of the late owner. The performer of this unsavoury task was clothed in a rough seaman's guernsey, but so deftly and speedily did he perform the decapitations that he roused in the minds of those who saw him a suspicion that he was a member of the medical profession. The crowd deeply resented the mutilation of the dead, all the more that the political glamour which had been thrown over their crime hid its foolish ugliness, and they yelled execrations mingled with groans and hisses at the man in the mask; and the feeling of disgust thus crudely expressed by the mob was echoed by many more responsible people, and was centred upon the unknown operator. It is easy, therefore, to imagine that to be under suspicion of having served his country in so bestial and degrading a fashion would be a terrible position for a young surgeon. And this is what happened to Thomas Wakley.

How did the suspicion arise? Who started it? Had it any causal connexion with the terrible events in Argyll-street on the night of Aug. 26th? These questions cannot be answered with any certainty, but the facts which guided Thomas Wakley and his legal advisers to their several opinions can be given. The belief that the decapitation of the conspirators had been undertaken by Wakley, wherever it first originated, obtained such support as it received on account of a newspaper article which stated that the masked operator was "a young surgeon of Argyll-street," he being the only surgeon occupying a house in that small street at the time. It was found impossible to trace the originator of the phrase, which appears to have been printed without any personal feeling or any appreciation that it was tantamount to giving a name to the masked man whose anonymity was so much a subject of debate. It may have been written with accidental infelicity or it may have been inspired by malice, and if the latter was the case, the malice may have had a particularly mischievous and successful outcome. For the Cato-street conspirators were thirty in number; and as but ten of them suffered for their crimes, many must have been free, and some of the remaining desperadoes may have planned the murderous and ruinous attack upon the man whom they believed upon public hearsay to have assisted the law in its last horrid offices upon Arthur Thistlewood and his co-conspirators. All this is purposely couched in the language of pure supposition, for no light has ever been thrown upon the real origin of the fire. To complicate matters in the search for an incendiary, Wakley had received, both before and after his marriage, anonymous letters, obviously inspired by jealousy. One of these letters, which was received in March, 1820, contained a distinct threat that his house should be burned down and himself murdered. In consequence of this threatening letter Wakley consulted his solicitors as to the advisability of increasing his insurance. The contents of the house had been originally insured for £600, but the policy dated from before his marriage. After his marriage many things were obtained—furniture, plate, china, &c., while the dresses and jewellery of Mrs. Wakley and her numerous wedding presents had also to be added to his effects. In fact, he found himself, with a distinct threat that his house would be burned down, in the unpleasant position of being secured against loss to the extent of one half or perhaps a third of the value of his goods. His solicitors urged him to insure his effects to their proper amount and also to put the letter out of his mind; but the first he delayed to do and the second he was unable to do. At last he insured for a further sum of £600, and this increase of insurance was made so short a time before the fire, with all its extraordinary circumstances, that it is hardly to be wondered at that at the first moment the insurance company withheld payment, not actually alleging that the luckless owner of the house had burnt himself out, but leaving the impression by their action that such was their belief. The complete refutation of this comical insinuation on the part of the Hope Fire Assurance Company—for it was comical as well as terrible, inasmuch as it was proved to the hilt and apparent to the casual glance that the money owing by the company did not more than half indemnify Wakley for his losses in goods and otherwise by the fire—followed, as will be seen, almost immediately; but during the time necessary to prepare the proper legal procedure for his vindication he suffered mentally under the belief that the cruel and baseless suspicion was widespread.

But the actual culprits were never discovered. Did one of the Thistlewood gang set fire to No. 5, Argyll-street and attempt the murder of the owner? Did the writer of the anonymous letter, to whose identity no clue was ever obtained, but who had made categorical threats to do these two things, carry out his threats? These persons could not be one and the same person, as the anonymous letter preceded the Thistlewood executions by two months. Wakley's lawyers seem rather to have leant to the theory that the assault and arson were the execution of the threat. Wakley himself implicitly believed that he had been attacked by some of Thistlewood's gang or by persons at any rate who sympathised with Thistlewood to this extent, that they were prepared to take vengeance upon the man whom they were informed had played the part of amateur headsman upon his person. It required a man mad with jealousy to write the anonymous letters, and it only required him to be a little madder to carry out the threats contained in them. So far the lawyers' view is tenable. But, as will be seen, Wakley was robbed as well as assaulted, and though jealousy might have dictated the burning of the house and the savage attacks upon the owner they would not have instigated an unsuccessful rival to the meaner felony. That members of the Thistlewood gang were concerned in the matter must have seemed at the date probable, for men's minds were then full of the daring and vile enormity that these ruffians had planned to perpetrate, and no act would have seemed too stupid, causeless, and criminal to be attributed with reason to the residue of the band. It is, of course, possible that Wakley was right in his view. But in the beginning we are confronted with a coincidence that asks for much credibility if any of the Thistlewood gang are to be held responsible for the Argyll-street outrage. We must believe that the exact threats made by one person in February for one reason were carried out by different persons in August and for a different reason. Or we must believe that the jealous man seized the opportunity of the known though unreasonable fury of the coarsest socialistic party against Wakley to instigate some disciples of Thistlewood to the crimes. It is not very probable that any miscreant, however enthusiastic a follower of Thistlewood, or however nearly tied by blood or sentiment to any of that man's misguided followers, would, soon after the breaking up of the Cato-street gang, have dared to outrage the law in so public and flagrant a manner. Those of the actual band

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who were still at large had prices put upon their heads for high treason, and an example before their eyes warning them that capture meant subjection to the utmost rigour of the law. Their relatives and friends would for the same reasons be chary of drawing upon themselves the attention of the authorities. The supposition that the outrages were the result of an ordinary robbery with violence planned against a man known to be recently married and in possession of much portable property is the one that demands the least exercise of imagination, but does not fit in with the circumstances as will be seen.

Such are the theories as to the cause of the Argyll-street outrages which broke up Thomas Wakley's home, injured his health, and ruined his practice, reducing him in a few moments from a position that had been truly enviable to one that was as truly deplorable. The grave effect that the sudden and terrible check to his material prosperity and domestic happiness had upon him at the time and afterwards—it possibly determined his career, and certainly influenced his life—warrants the lengthy treatment of the whole episode, and the sworn testimony to the events of this night, supplied by several eye-witnesses, will be given in the next chapter. The reader will then be in the position to judge for himself where the balance of probability lies, and see at the same time how monstrous as well as foolish were the slanders that attributed the burning of the house to his own hand, and the anonymous messages and murderous attack to his own imagination.

But if the murderous robbers and incendiaries were never detected, the identity of the man in the mask who assisted at the execution of Thistlewood and his followers, and for whose revolting deed Wakley suffered, is now fairly established. He was in all probability a certain Tom Parker, at the date of the executions an assistant to Edward Grainger in the Webb-street anatomy school, and later dissecting-room porter at St. Thomas's Hospital, under Richard Grainger. It seems idle, almost, to repudiate for Thomas Wakley any share in the matter, but inasmuch as he himself took pains to refute the revolting and ridiculous calumny, and inasmuch as there were certainly persons at the time who believed it and others who spread it abroad, whether they believed it or no, it is best to put on record the following correspondence, which had the effect of silencing the slander entirely :—

1. *Letter from Thomas Wakley to J. W. Parkins, Esq., Sheriff of London and Middlesex.*

Kentish-town, Sept. 21st, 1820.

SIR,—From the period of my late catastrophe in Argyle-street, to add to my anxiety, I have been currently charged by a multitude of malignant slanderers as being the person who decapitated Thistlewood and his deluded companions in May last. Your official contradiction of this disgusting falsehood, as Sheriff of London, will confer a lasting favor on, Sir, Your obliged servant,

(Signed) THOMAS WAKLEY.

J. W. Parkins, Esq.,
Sheriff of London and Middlesex.

2. *Letter from Mr. Parkins to Thomas Wakley.*

No. 10, New Bridge-street, Sept. 25th, 1820.

SIR,—In answer to your letter of the 21st instant I feel myself bound to comply with its contents to the utmost of my power; but I am sorry to inform you that the whole of the disgusting business to which it relates was conducted with so much privacy and pertinacious concealment from me that I was not even made acquainted with the order for the execution until the day after (Sunday when I went to Newgate accompanied by a clergyman) it had been determined upon, and orders given for erecting the scaffold, &c., by the Lord Mayor, Bridges, and my colleague, Mr. Rothwell, who, accompanied by his deputy, had, I understood, been at the Secretary of State's office arranging the same. As to the man who decapitated the unfortunate Thistlewood and his companions, he was procured for that purpose by the prison surgeon, and his terms £20 agreed for by Mr. Turner, Mr. Rothwell's deputy, and which wages Mr. Turner told me were repaid to him by the Home Department, as also £5 he paid to the man who held up the heads.

I did not see the man who performed the duty until he appeared on the scaffold masked, and dressed as a sailor. By the notice I then took of him (which was very particular) I perceived him to be in height about five feet five or six inches; and in answer to my inquiry the other day (in consequence of your note) who the fellow was, Mr. Turner informed me that he was a resurrection man who obtained bodies for the hospitals, and that when he asked him if he could perform the task of cutting off the heads, he replied, oh, yes, that he could do it very well, as he was in the habit of cutting off *nobs* (heads) for the purpose of obtaining *nackers* (teeth). I am glad for the honour of our country's humanity that it was no person of respectability, but a most illiterate and degraded being, as was also the wretched individual who held up the heads of the unfortunate men.

In addition to the above, I am credibly informed that the individual who decapitated Thistlewood and his companions was engaged by the under sheriffs from Yorkshire to go there for a similar purpose, but in the performance of which sanguinary work, thank providence, he has been disappointed.

I cannot conclude this letter without bearing testimony to the humane disposition of your heart towards the depraved young man who robbed you of your watch on the fatal night when crossing the road, and bleeding from the wounds inflicted by the assassins and incendiaries who had set fire to your house in Argyll-street.[2]

I hope this assurance will convince everyone, even the most malignant of your enemies, that it was totally impossible anyone could mistake a gentleman of your appearance and height (which I conceive to be about five feet ten inches) for the person (five feet five or six inches) who performed the sanguinary duty on Thistlewood and the others in May last.—I am, Sir, your most obedient servant,

Thomas Wakley, Esq. J. W. PARKINS, Sheriff.

3. *Further Letter from Mr. Parkins to Thomas Wakley.*

November, 1820.

SIR,—I hope you have not been liable to any further annoyance from the erroneous and wicked opinion which prevailed that you were the person who decapitated Thistlewood and his associates. I am inclined to think that my letter of the 25th of September has been of service to remove that impression, as a few days ago a stout woman called upon me and asked if the letter which you published was one from me, and on being informed that it was so she expressed her surprise, and said that if the man who did it could be found he would be served out or made away with. It did not occur to my recollection at the time or I would have endeavoured to trace out who those were who set your house on fire. I cannot conclude without noticing the cool indifference of Mr. Box, who could scarcely be induced to tell me who the man was that he hired for the purpose, Mr. B. stating as a reason that if the police officers knew him they would take him into custody for robbing the churchyards, and Mr. Deputy-Sheriff Turner said that it was not necessary to be more particular than merely to state on my authority that you were not the person. However, I now feel much satisfied that I gave you the letter that I did. With best wishes for your prosperity, believe me,

Yours truly,
J. W. PARKINS, Ex-Sheriff.

To Mr. T. Wakely, Surgeon, Albemarle-street.

From these letters of the worthy sheriff it is clear that the Home Office employed a dissecting-room porter and a resurrectionist to assist in carrying out the sentence upon the Thistlewood gang. Mr. William Adams, F.R.C.S., has kindly supplied information which, taken in conjunction with that afforded by the cordial replies of Mr. Parkins to Wakley's letter of Sept. 1st, 1820, confirms the rumour, prevalent at the time, that the Government's *aide-de-camp* on the gruesome occasion was "Tom Parker of Grainger's." Mr. Adams informs us that suspicion fell not only upon Wakley but upon his late instructor in anatomy, Edward Grainger, who was compelled to make a public denial.

"The man," Mr. Adams writes, "who really did cut off the heads I have no doubt was a man well known as 'Tom

[2] The episode to which Sheriff Parkins refers will be found in the next chapter.

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Parker,' Grainger's head dissecting-room porter. This man was a celebrated 'resurrectionist.' He told me he once took fourteen bodies out of Old St. Pancras churchyard in the night.

"That he possessed the requisite skill is proved by what I myself saw. In the year 1842 I was appointed Curator of the Museum and Demonstrator of Morbid Anatomy at St. Thomas's Hospital, and in that year we bought Grainger's School, appointed Grainger lecturer in physiology, and made other important changes. With Grainger we took several other well-known characters of the old school, and Tom Parker became my chief dead-house assistant. In 1843 I found that the museum was very short of separated bones of the skull, and I asked Tom to look out for any favourable opportunities. A young woman about eighteen years of age threw herself over Waterloo-bridge and died at the hospital. Tom said her head was just the thing I wanted, and, when we were alone after the post mortem, he said: 'Now I should like to show you the secret of cutting off a head.' The knife, he said, would never do it, but there was a dodge in wrenching through the ligaments by twisting the head violently first to the right and then to the left after all the soft parts had been cut through. This he demonstrated on the spot by putting the girl on the floor, then raising the trunk and firmly grasping it between his knees, when he made the cut in front, sloping the knife towards the occipital articulation, and then the cut behind with the same slope of the knife. Then the violent wrench and the head came off. Tom was generally accused of being the man on the scaffold, and never denied it, but he never confessed it even to myself, next to Grainger his best friend.

"The sequel to Tom Parker's case of decapitation was remarkable. The coroner's jury returned a verdict of *felo-de-se*, and the woman was buried in unconsecrated ground close to the churchyard of St. Thomas's Hospital. The beadle of the parish and a few others were at the grave, and the beadle said his duty was to see that the body was in the coffin. This, of course, Tom Parker resisted, and a few others that were at the grave; but the beadle got his pickaxe and forced open the coffin, when it was found that there was no head. Then the people adjourned to the public-house close by and Tom ran off to the hospital, put the head in his pocket-handkerchief, and went back to the grave and put the head on with a little sawdust over the neck. Tom Parker then went down to the public-house and faced the mob. Tom made a speech and said: 'Now this 'eer beadle says the woman was brought from St. Thomas's Hospital without her head. Now I mean to say that the beadle is drunk, and I insist that all the people here come to the grave and see for themselves.' Away the crowd went, and the woman, sure enough, had a head on, and he turned the tables upon the beadle."

It is not really of much consequence who was the actual assistant at the Thistlewood executions, for Thomas Wakley was never accused of being the culprit after the appearance of Sheriff Parkins's first letter; but, as a matter of historical probability, the exploit rests with Tom Parker. It had evidently got abroad somehow that Grainger's School were represented on the scaffold, some gossip from the dissecting-room having oozed out. Grainger himself was accused, and Wakley, an enthusiastic student, as we have already seen, of the Webb-street school, shared the same ill-fortune. Government probably applied to Edward Grainger for assistance in a practical difficulty, and he got them out of it by nominating his dissecting-room porter. Is it a very wild fancy to imagine Tom Parker first waxing wise and important when rumour was busy with the name of the masked man, and allowing that an he would he could a tale unfold, and then shirking the confession he half desired to make, and thrusting what would have seemed a great deal like fame in his eyes upon his employers?

(To be continued.)

FOOTBALL CASUALTY.—During a match on Saturday last, at Tufnell-park, between the London Welsh and Crouch End teams, a player fractured one of his ribs.

THE SOCIAL EVIL AND THE PROPAGATION OF VENEREAL DISEASES.

TWELVE years have elapsed since the Acts known as the Contagious Diseases Acts were practically suspended by a resolution of the House of Commons in February, 1883, and a decade has nearly passed since these Acts were wholly repealed in 1885. A sufficient interval has, therefore, occurred to enable us to take a perfectly dispassionate view of the various questions involved in the passing and in the repeal of these Acts. In other words, we can study the "social evil," especially in its worst phase, that of propagating syphilis, by the light of the past and of the present. Possibly, also, we may gain some insight as to what will be the probable future with regard to legislation on this painfully important subject. It will be desirable here to note that the repeal of the Acts in this country was followed by their repeal in India, in China, and in all those British colonies where they had been enforced, with one notable exception, that of Malta. In that island prostitutes had been for a long time compelled to submit to periodical medical examination, and, though the exact date of this regulation cannot be ascertained, it is known to have been of very long standing, being probably introduced during the early years of the Government of the Knights more than three centuries ago. In 1859 circumstances caused the temporary suspension of the practice, but so serious were the consequences that it was found necessary to pass the Ordinance of 1867, which remains in force to this day, the Maltese Government having rejected the motion for its repeal by a decisive majority. Thus after the experience of several centuries of legislature, and of only two years of the repeal of the Acts, the Government of Malta have decided for the retention of a law which by a wise provision prevents the prostitutes of Malta from spreading disease broadcast among the soldiers and sailors, always to be found there in large numbers, and also to the civil population. It is well known that, though so small an island, Malta is very thickly populated, there being a total of 168,000 persons in that island and in Gozo, the chief town, Valetta, and the "Three Cities" on the other side of the harbour, containing more than one third of this number. It may be easily conceived that under such circumstances venereal diseases, and particularly syphilis, would spread like an epidemic. But a Parliamentary paper gives the following beneficent results of this legislation. In 1884 the Royal Malta Fencible Artillery, with a strength of 324, had no cases of syphilis. The Duke of Cornwall's Light Infantry, with a strength of 900, arrived from England in December, 1885, with 28 cases of venereal disease, while on Nov. 15th, 1886, they had only one case of gonorrhœa in hospital. The Black Watch, with a strength of 740, arrived from Egypt on May 5th, 1886, with 33 cases of venereal disease; six months later there were none of them in hospital. The report of the Deputy Inspector-General of Hospitals and Fleets showed an equally favourable state of the seamen as regards freedom from venereal disease; and Dr. Pisani, the chief Government medical officer, in his report in 1886 (when it was proposed to repeal the Act), gave the following very striking facts: "Venereal disease is not very prevalent here. Bad forms of syphilis are uncommon in comparison to what is the case in other countries and in proportion to this population. This might not be expected, considering that there are here stationed several regiments, and that Malta is a naval station and lies in the route of great sea traffic. I am convinced that this exceptional relative immunity from venereal disease is due to the supervision of prostitutes, which is here enforced by law." There is also stated to be a somewhat similar measure in force in Simon's Town, Cape Colony, but of this we have no details except that it is very successful in preventing the spread of venereal disease and would be still more so were it not for the frequent importation of the disease from Cape Town and other unprotected places. Though the Acts have been repealed in China, in India, and other Crown colonies, it was not done without protest. On the contrary, the proposal was received with much regret by the Governors and other prominent officials, including the local army and navy medical officers as well as the colonial surgeons. The articles and papers which have recently appeared in THE LANCET show the

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terrible spread of disease which has been the direct result of the repeal of these Acts in India, Hong Kong, and the Straits Settlements, while the Parliamentary papers already referred to give abundant evidence that this could be amply confirmed, were it necessary, by the reports from Ceylon and elsewhere. In Malta the Council of Government comprises both official and elected members. Of the latter, not one of the thirteen present when the repeal was moved spoke in its favour, knowing as they did what was the general opinion of those whom they represented. The debate was most interesting, and the speeches contrast very favourably with those delivered in our own House of Commons. The lay press of Malta, too, spoke out boldly, as may be judged by these extracts from *Public Opinion* of Nov. 27th, 1888: "As our friends of the palace appear to be anxious to know our opinion as to the proposal made by the Crown Advocate to repeal Ordinance No. IV. of 1861, we have much pleasure in declaring that, in our thinking, the provisions of that Ordinance, far from being repealed, ought to be made more stringent and more efficacious; that the elected members, paid and unpaid, should disregard the orders sent out by the Secretary of State, and unanimously oppose the repeal of that Ordinance. ..... If the great Imperial Government think it right for party purposes to fall in with the mawkish sentimentality of certain parties in England, that is no reason why this island should be converted into a pest-house for the propagation of the foulest and most insidious diseases which undermine the health and the life, not only of the immediate sufferers, but of innocent generations yet unborn. Without entering into unpleasant and disgusting details, we shall only add that the views briefly stated above are those of the most eminent and most conscientious medical and sanitary authorities in Europe." And after the motion for repealing the Acts had been defeated the same paper observed: "No one pretends to interfere with the action taken by the Government and the people of England, who with the view of protecting the dignity and the modesty of fallen women have sacrificed the health and the efficiency of the British army and navy at home and abroad, and facilitated the spread of that most loathsome and most insidious disease to innocent women and children. But it would be most unreasonable, unjust, and despotic to repeal a law which the inhabitants of these islands unanimously uphold as the only safeguard against the spread of that disease—a disease which infects not only those who violate the moral law, but also respectable and honest women and their offspring, who certainly are more deserving of protection than all the unfortunates in the British Empire."

When twelve years ago the suspension of the periodical examinations of the women subject to the Acts then enforced in England and Ireland was carried the *Times* observed that the Acts had received their death-blow. The preceding remarks show that this was at least somewhat premature. Certainly they have not received their death-blow in Malta; on the contrary, their suspension led to their being re-enacted and enforced with as great vigour as before, and with the most beneficial results, not only to the English army and navy, but to the civil population of the island, both English and Maltese. The repeal of the Acts in India, China, and other colonies has been followed by results which have caused much indignation to those who know the full extent of the evil and the totally different position of native women from those in England and Ireland. The following brief history of the introduction of the Acts will show that it is not a mere political question, and also that their repeal was carried in the face of all official experience of their beneficial working. In 1862 a Committee of the House of Commons reported in such serious terms on the extent and severity of venereal disease in the army and navy that the Act of 1864 was passed. In that year a medical committee, known as Mr. Skey's Committee, was appointed by the Admiralty and War Office to consider the subject and to the naval and military authorities any practical rules to diminish the frequency of the cases of contagion, such rules to be capable of adoption in the daily life of the ship or barrack. This committee examined a large number of witnesses, including the most eminent surgeons of that day. Their attention was drawn to the defects of the recently passed Act, and to the superiority of the Maltese Act, which had been in working for several years since its re-enactment. In consequence of this they recommended the periodical examination of all prostitutes within the districts to which the Acts were applied, which formed the principal feature of the Act of 1866. This Act was enlarged and improved by the subsequent Act of 1869, and all this was done with very little opposition. The Lords' Committee of 1868 and the Commons' Committee of 1869 reported very favourably of the Act, each recommending its extension. Then arose the opposition with which we are so familiar, and a motion for the repeal of the Act was moved in the House of Commons in 1870. It was defeated by a large majority, and a Royal Commission was subsequently appointed. It reported favourably of the Acts, only a few members being in favour of their repeal. In 1873, 1875, and 1876 motions for their repeal were each defeated by a large majority, and in 1879 a Committee of the House of Commons was appointed and sat till 1882, when it reported strongly in favour of the Acts. Thus a period of twenty years had passed, embracing the last Government of the late Lord Palmerston and Lord Derby's Government of 1866–68, two Governments of Mr. Gladstone, and one of the late Lord Beaconsfield. All the various inquiries were favourable to the Acts, and each of the Ministers most capable of judging of their working—viz., the Home Secretary, the Secretary for War, and the First Lord of the Admiralty in each Government—spoke and voted in their favour. Even at the debate in 1883, when the Acts were virtually suspended, these three Ministers testified in their favour.

Those who opposed these Acts have, therefore, carried their point and had their own way. What has been the result? Has the "social evil" been diminished either in the towns formerly subjected to these Acts or elsewhere in England and Ireland? On the contrary, there is abundant evidence that their repeal is much regretted by all those inhabitants of the formerly protected places who are capable of forming a dispassionate opinion. Have voluntary efforts been honestly made to supply hospital accommodation for those unfortunate women formerly admitted into and treated in the wards of the Government lock hospitals? On the contrary, the inadequate supply of such hospitals and wards, and the miserable support given to the few which exist, are blots upon our boasted civilisation. As for London and other large towns to which the Acts were never applied, it may be safely asserted that never was the "social evil" more aggressive and more rampant in the streets than it is now, while, as regards venereal, and more especially syphilitic, diseases in all their forms, they still continue to be a national scandal. On this point we can speak without any hesitation. We have condemned in THE LANCET, with all our might, the heresy attributed to members of the medical profession that unchastity may be defended as a venial offence, and that chastity is physiologically bad for young men. We have quoted the words of leading physicians and surgeons—e.g., Sir William Jenner, Sir James Paget, Dr. Gowers, and Dr. Lionel Beale—to the effect that chastity never did harm to mind or body, that such discipline as it involves is excellent, and that marriage can be safely waited for, even for years, without the least danger to health. That some unwise members of the profession may have given different advice is unfortunately true, but these form a very small minority. The larger proportion of medical practitioners know well the truth of George Herbert's saying: "Continence hath its joys"—both negative and positive. Who know better than they what evils incontinence involves—diseases often embittering the whole of a life and not infrequently ending in premature death? A miserable ending, indeed, to the small gratification afforded by incontinence. From such miseries men who curb their passions are exempt.

But we must take human nature as we find it, and we must avoid that confusion of terms which is of itself a peril and a danger into which so many well-meaning persons of both sexes often fall. There are thousands of young men to whom marriage is simply out of the question until they have attained middle life—if, indeed, it can be attained then. There are also thousands of women who can never hope to marry at all. Venereal diseases are not necessarily the consequence of sin *per se*, but of sin with a diseased person. Moreover, for every "frightful example" such as we have indicated every one can call to mind persons who have lived unchaste lives without incurring this penalty. To the worst form of vice—seduction—disease, so far as the man is concerned, cannot occur as a penalty. Nothing can be more unfortunate as well as erroneous than this confusion of vice and disease.

And what ought to be the attitude of members of the

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medical profession, of philanthropists, and of humanitarians towards the victims of vice? Are they to be left with their diseases uncured? Such an attitude would be alike inhuman and unchristian. The experiment has, unfortunately, been tried, with the disastrous results which we have seen. If such diseases as scarlet fever, small-pox, typhus fever, &c., were to occur to the inhabitants of the most infamous brothel, would it be argued that the inmates and their frequenters ought to take these consequences of their vice? No, for in this case the medical officer of health would interfere and remove the infected to hospital. But a disease quite as dangerous and even as deadly may be propagated not only amongst the prostitutes and the men given to vice, but amongst innocent wives and children. Does not the almost daily experience of the Divorce Court show that marriage is by no means a perfect safeguard against unchastity, too many persons being married but not mated? In short, the whole subject is one which cannot be treated in a narrow or dogmatic spirit. What is required is that venereal diseases shall, so far as is possible, be prevented. That the much-abused Contagious Diseases Acts did this is beyond all question. They have been actually repealed for ten years, and practically so for twelve years. Meanwhile we have returned to a state of matters quite as bad as, if not worse than, when a Parliamentary Committee reported in 1862: "A mass of vice, filth, and disease," again "surrounds the soldiers' barracks and the seamen's homes"; it "not only crowds our military, our naval," and civil "hospitals with sick, weakens the roll of our effectives, and swells the list of our invalids, but surely, however slowly, saps the vigour of our soldiers and our seamen, sows the seeds of degradation and degeneracy, and causes an amount of suffering difficult to over-estimate."

All this must form the subject of inquiry; it is simply a question of time. Not only is such an inquiry demanded at home, it is also required in India, where it is officially reported that in 1893 practically 50 per cent. of the British Army were in hospital suffering from venereal diseases, the Commander-in-Chief expressing his opinion that the record for 1894 would be found to be worse. In China and the Straits Settlements inquiry would show an equally serious, if not worse, state of things; and if it were extended to other colonies the result would be to confirm the disastrous results of the repeal of the Acts everywhere. Matters would be on a totally different footing now compared with that on which they were before. Then the Acts were new and on their trial. Then their working could only be judged by what took place before their enforcement. Now we have a period of twelve years since their suspension and ten years since their repeal to be added to the comparison. If the result of inquiry be, as it must be, to confirm the opinion of those who have supported these Acts through evil and through good report, no amount of special pleading on the part of their opponents can avail. Moreover, many who were opponents have been converted by the inexorable logic of facts, as witnessed in Chatham, Devonport, Plymouth, Portsmouth, and all the other districts which formerly had the benefits of the influence of the Acts. History will be found to have repeated itself as it did in the island of Malta, and it will be found that special legislation is necessary to control the evils consequent upon unchecked prostitution.

THE ASHANTI EXPEDITION.

THE nation may be fairly congratulated on the success of the Ashanti expedition. The plan of the undertaking has not only been very skilfully designed, but carried out with remarkable precision and with an amount of foresight and attention to detail that have left nothing to be desired. The success of campaigns depends more than most things upon good luck and good guidance, and both have been present on this occasion. The expedition has been lucky as regards the season and the comparative coolness of the weather and the celerity with which it has been executed. The troops were not disembarked until they were actually required, they proceeded at once on their march, reached Kumasi without any fighting, and returned to the coast without loss of time and within the limits of the dry season, which all previous experience has shown to be the healthy one in that climate. The nation has had to mourn the loss of Prince Henry of Battenberg and the burden of a great grief has fallen upon the Queen and the Royal Princess his widow. The death of Major Ferguson, who was a comparatively young and vigorous man, from a very severe attack of African fever, was also an unexpected calamity. Notwithstanding that the heat and the fatigue of the marches have had their effect on the troops, the total number of sick does not at present amount to more than 100, which is most satisfactory. We must expect, however, that this number will be augmented, for it is only too probable that many have contracted malarious disease the manifestations of which will appear later. Those who have already suffered from fever will also be liable to recurrences or relapses. Still, compared with the terrible results of military expeditions in that country before the campaign of 1873–4, the nation may be congratulated on the comparative freedom from disease and the small mortality that has attended the present expedition to Kumasi. The results, too, promise to be very satisfactory. We have relieved a vast population in West Africa, as Mr. Chamberlain has in effect well said, from a bloody and barbarous tyranny, dealt a heavy blow to slave raids, and opened out an important and productive country to possible commerce and civilisation. It now remains for us to devise some just and settled form of government in Ashanti, to open some communication by railway, in the absence of animal transport, between it and the seaboard, and to discover a healthy site in the uplands for the accommodation of the force that will have to form a future garrison there. This being accomplished, we make no doubt that there will be in time a more peaceful, contented, and happy population in Ashanti than has ever before existed there. The arrangements made during the late campaign for the transport, feeding, and accommodation of the troops and those falling sick on the line of march by rest camps and native huts—constructed of bamboo and thatched with palm leaves, and raised two feet above the ground—seem to have been as well carried out as was possible under the circumstances, and due care appears to have been taken with regard to the water-supply. By all accounts the country is densely wooded, some of the forest trees being very large and of great height, and the vegetation, consisting of undergrowth and creepers, redundant. There is also plenty of insect life of various kinds, white ants being of the more destructive and formidable sort. The clearing of a way for the troops along the line of route was a serious undertaking in some places. The march to and from Kumasi has, as we have already said, proved a very trying one, and the force shows signs of its exhausting nature; they are described as looking pale and haggard, this applying even to those who have altogether escaped an attack of fever. We are proud to notice that the work done by the medical service has most deservedly attracted attention, and that the zeal displayed by the Army Medical Staff in their attention to the sick is stated, according to Reuter's Special Service, to deserve the highest praise. The medical officers with the 2nd West Yorkshire Regiment and the Composite Battalion are specially named. Surgeon-Captain Maher with the former was often to be seen carrying the men's kits and rifles and giving up his hammock for their comfort, while Surgeon-Captain W. C. Beevor of the Scots Guards, with the Composite Battalion, was untiring in his efforts to prevent sickness. We may boldly add that this has always been so; that medical officers have on all occasions shown a spirit of self-abnegation and zeal on field service, and that what was noticed in connexion with this expedition was also the case during the trying marches in the Afghan campaigns, in the Egyptian and Nile expeditions, and during the late siege and relief of Chitral.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the committee of the Association of Fellows of the Royal College of Surgeons of England was held at 25, Grosvenor-street, W., on Jan. 22nd. The minutes of the preceding meeting were read and confirmed.

Mr. Percy Dunn, the honorary secretary, reported that he had received a letter from the honorary secretary of the Society of Members of the College conveying the thanks of the committee of the society to the Fellows of the College as well as

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to the Association of Fellows for supporting, by the recent vote at the half-yearly meeting of Fellows on Jan. 2nd, the principle of the direct representation of Members of the College on the Council, and at the same time expressing the hope that the vote in question would mark the commencement of a new era, in which Fellows and Members of the College would work together for the good of the institution. The letter further stated that the committee of the society deemed it desirable to postpone the consideration of the details of representation until after the committee of the Council had reported, and that the general opinion among the Members was that the power to elect one of their own order to the Council should be granted and would be the only satisfactory solution to the controversy. A discussion then followed upon this letter, and eventually it was unanimously agreed that the following resolution should be forwarded to the Society of Members in reply:—

"That the committee of the Association of Fellows of the Royal College of Surgeons of England has the pleasure to acknowledge the resolution of thanks received from the committee of the Society of Members and to state that the feeling of the committee of the Association is generally in favour of the principle of direct representation of the Members of the College on the Council, as was clearly shown by the fact that no less than seven of the members of the committee spoke in favour thereof at the recent meeting of the Fellows. It should, however, be understood that before the committee as a body could take any action in this regard in the name of the Association it would be necessary to receive a direct mandate from the Association generally."

The committee then proceeded to consider the question of the admission of reporters to the half-yearly meetings of Fellows. The matter having been fully discussed the following resolution was unanimously adopted and a copy thereof directed to be forwarded to the President of the College:—

"That, in view of the fact that no reference is made in the regulations of the Council under which the half-yearly meetings of the Fellows are conducted to the admission or exclusion of reporters, the Committee of the Association of Fellows begs leave respectfully to invite the attention of the Council to this important subject, believing it to be in the highest interests of the College that the proceedings at these meetings should be fully reported in the medical journals."

The Hon. Secretary reported that at the general meeting of the association held on Dec. 11th, 1895, Mr. George Pollock, the President, Mr. T. Holmes, Vice-President, and Mr. Percy Dunn, Hon. Secretary, had been unanimously chosen as representatives of the association on the Civil Rights Defence Committee. As it was understood that the committee had power to add to the number of the representatives, it was duly proposed, seconded, and resolved that Mr. Gant's name should be added to the above list of representatives.

This concluded the business of the meeting, and the committee adjourned.

BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY.

THE inaugural meeting and conversazione of the British Balneological and Climatological Society was held on Jan. 22nd at Limmer's Hotel, Conduit-street, W.

Dr. HENRY LEWIS (Folkestone), the President, in opening the proceedings thanked the members of the society for electing him as their first president and for the compliment they had thus paid to the fair health resort of Folkestone. He ventured to express the firm conviction that if they were only true to themselves, learning from each other by the personal contact which the society would bring about, the eyes of their understanding would be opened and the area of their knowledge enlarged, so that in the interests of suffering humanity they might be able to demonstrate the great conveniences and advantages of British health resorts. He regretted the unavoidable absence of Dr. Ord (who had promised to deliver the inaugural address), but Dr. Symes Thompson had kindly consented to fill his place.

Dr. SAMUEL HYDE (Buxton), Chairman of Council, made a statement as to the position and prospects of the society, which, he said, was founded on Nov. 9th, 1895. At the general meeting held earlier in the day eighty-eight new members had been added to their ranks, and promises of further sympathy and support justified the most sanguine expectations for the future prosperity of the society. It had long been considered by many that the practitioners of British health resorts were so divided by antipathies and jealousies as to make it impossible to form a society. The results, however, proved this to have been fallacious, and the existence of the society would tend to soften down any cause of disunion. He wished particularly to point out that the rules of the society had been framed on the broadest principles, and absolute control was placed in the hands of present and future members. The rules also provided for a considerable infusion of new blood into the executive every year. It had already been arranged for two or three monthly meetings to be held during the session.

Dr. SYMES THOMPSON, after expressing disappointment and regret for the absence of Dr. Ord, said there could be no question that within the last few years a greatly increased interest had been given to questions of climate and balneology. This had arisen from a variety of causes. One cause was that, with the increasing tendency to congregate in great centres, the new-comers were compelled to seek pastures new in the various climates and baths of our country. The greatly increased facilities of locomotion, too, had largely increased our means and opportunities of utilising the advantages of the various resorts. A meed of credit should also be given to the Meteorological Society, which had reclaimed from an ill-defined to a definite process a subject which previously had shown nothing but vagueness and often imagination, and he trusted that in the near future the scientific precision with which the Meteorological Society made its calculations would be productive of much good. Then, again, the mortality reports issued from time to time enabled them to compare the prevalent diseases of the various resorts, and enabled them to form an opinion as to the advantages and disadvantages of the British health resorts in certain classes of disease. This society would be very useful to the medical profession in obtaining an insight into these benefits and disadvantages. Many places would be reclaimed and restored. The knowledge of the characteristics of our health resorts was not what it should be, and such a society as this would be able to do a great service in making accurate knowledge more widespread. Each member of the society would feel called upon to do his best to make his health resort as attractive and advantageous as possible. Foreign health resorts were far ahead of us in this direction, but there was every reason to hope that the attention drawn by this society would be the means of making health resorts in this country more attractive than at present. If they fully recognised the advantages possessed by our spas they would not need so constantly to go further afield. An important advantage that would accrue from the society was the opportunity it would give to the busy consultant in London of coming in contact with the representatives of the different spas, who would thus be able to hand over to local men patients suffering from chronic illness with the knowledge that attention would be given to those minute details of treatment which was so necessary in these cases.

Dr. EDWARD MACKEY (Brighton), who complained of the lack of baths in his town, which possessed a good climate, proposed a vote of thanks to Dr. Symes Thompson.

Mr. SHIRLEY JONES (Droitwich) seconded the vote of thanks, which was heartily accorded.

Dr. A. S. MYRTLE (Harrogate) proposed the following resolution:—

"That this meeting expresses its satisfaction at the founding of a British Society for the Promotion of Medical Balneology and Climatology, and commends it to the sympathy and support of the profession at large and especially to the medical men connected with the health resorts of this country."

He said such a society would benefit both the practitioner at the health resort and the profession generally. He referred to the greater attractions which were provided at foreign health resorts, and remarked that patients were often sent abroad who might be more successfully treated at home.

Dr. WM. SNOW (Bournemouth), in seconding the resolution, endorsed the remarks of the previous speaker.

Dr. HERMANN WEBER spoke in favour of English health resorts and spas. He emphasised the importance of the medical man in rendering the resources of a place useful to his patients. He must avail himself of all the good points of a climate and protect the patient from the influence of the bad points. In the case of waters, he must give exact directions as to their use and adapt them to the needs of his patient. The medical man is the most important agent, the most important part of the spas and of the climate. Advantage must be

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taken of the lessons of psychology. The mind was a most powerful agent in chronic disease. Patients must be made cheerful and stimulated with hope.

Dr. W. EWART thought it would be far better to recommend a patient to a fellow-countryman and to a health resort at home than to a foreign one. The difficulty in corresponding with a foreign medical man was very great, but in England they had the advantage of a similarity of ideas and a common language. If they were to utilise the home resorts, however, they must be familiar with them or know something about them, and he thought the society would be an immense benefit to both the profession and the public in this direction.

Dr. F. BAGSHAWE (St. Leonards-on-Sea), Dr. R. O. GIFFORD BENNET (Buxton), and Dr. FORTESCUE FOX (Strathpeffer Spa), who referred to the great opportunities which the practitioners of our watering-places had of adding to our knowledge of chronic disease, Dr. KINGSBURY (Blackpool), and Mr. WARD-HUMPHREYS (Cheltenham) also spoke to the resolution, which was unanimously carried.

Dr. J. G. DOUGLAS KERR (Bath) and Dr. HERON respectively proposed and seconded a vote of thanks to Dr. Weber, Dr. Ewart, and other speakers, and the meeting terminated.

After the meeting the Blue Zouave Ladies' Orchestra played a selection of music during the conversazione which brought to a close a most enjoyable evening.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On the Sanitary Circumstances of the City of Exeter. By Dr. W. W. E. FLETCHER.—It would appear that the Local Government Board have for many years found it difficult to get any sufficient information from the town council of Exeter as to the sanitary circumstances and administration of the city. Exeter seems to be one of the few remaining boroughs which appointed their medical officer of health under circumstances which freed them from the legal obligation to send annual reports to Whitehall, and when, owing to anticipations of cholera ten years ago, the Local Government Board ordered an inspection of the city by one of their own staff an array of recommendations was made which went to indicate that there was ample need for amendment. Since then the city has persistently withheld information as to the action it was taking or neglecting to take; indeed, the corporation ignored the ordinary civilities of official as well as of private life, and did not even acknowledge the letters of the central authority. In 1894 Dr. Bulstrode again visited the city and had to make much the same recommendations as were made ten years before, and since then the Board's letters have again been altogether ignored by the corporation. It was under these circumstances, so suspicious of there being something really to hide, that Dr. Fletcher has again visited the cathedral city of the West of England, and a somewhat detailed report is the result. In the matter of water-supply Exeter has nothing to boast of; the supply is from the river Exe. One mile above the intake Brampford Speke is said to drain into the river; three miles further up, the sewage of 600 people in Thorverton gets to the river by means of a brook; seven miles beyond is the outfall from the sewage farm of Tiverton East, with its 6500 people, where a large volume of untreated sewage goes direct into the Exe; and the west side of Tiverton contributes to the stream the dejecta of 2500 more people. Then, higher up, comes Bampton with a population of 1672; but when extension of sewers was proposed Exeter seems to have considered that the river supplying its citizens with water had quite as much befoulment as was desirable at the present period of hygienic progress, and objected. The water, befouled as stated, is passed into settling tanks and is filtered before delivery; but the citizens must be easily contented if they are satisfied with the existing state of affairs. In the matter of sewers a good deal seems to have been done since the date of Dr. Bulstrode's visit, and Dr. Fletcher is able to give faint praise by saying that, generally, the condition of the sewers is not unsatisfactory; but he adds that the sewer system cannot be considered as well ventilated. The disposal of the sewage can, also, hardly fail to cause nuisance at certain seasons; it goes direct to the river, and in dry weather, when the river is low, there has been a tendency to foul deposits, to decomposition, and to offensiveness which has been complained of. Besides which private drains, water-closets, and privies are allowed to discharge directly into leats leading to the river; indeed, a proposal has been submitted to remedy this unwholesome state of affairs by the construction of a large intercepting sewer. Dr. Fletcher also reports some substantial action with regard to house drains. He says that improvements as to closets have been adopted, except as regards the privies referred to; that scavenging is carried out by the corporation; and that some of the modern house accommodation is good and comfortable. But he adds that it has never fallen to his lot to see in a comparatively small area so many dilapidated, ill-ventilated, badly lighted, and filthy dwellings, and he marvels how this reticent town council can tolerate, in its capacity as a sanitary authority, a state of things which is a "disgrace to the city." "House accommodation for the lowest of the working classes ..... may be said to be as bad as it can be." The medical arrangements for the sanitary supervision of the city are peculiar. There are a superintending medical officer of health and three Poor-law medical officers acting as assistant health officers. This arrangement is not one that we can commend. The multiplication of health officers over one comparatively small area multiplies, if it does not ensure, the chances of putting into office those who have had no training for their health duties, and it tends to lessen the sense of individual responsibility to the sanitary authority. On the whole, it is evident that, whilst Exeter has not been idle in sanitary progress, yet it embodies quite enough that calls for adverse comment as in some measure to explain the desire of the corporation to keep things quiet by means of a judicious silence. Perhaps, now that the Local Government Board have placed Exeter on a par, as regards publicity as to its sanitary work, with the remainder of the sanitary authorities of England and Wales—who not only answer letters, but who regularly issue their sanitary reports—they will—pending the Exeter town council's attitude of reserve—periodically inspect and report on the city. Such a practice would be of advantage to those amongst the citizens who know the value of efficient sanitary work.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

St. Mary, Islington.—Mr. Alfred Harris's report for 1894 has but just reached us. The general death-rate of the parish (population 331,901) was for the year under review 15·8 per 1000, the lowest rate for this parish Mr. Harris has been able to discover. As instancing the value of notification he has drawn up a table giving a list of the trades carried on in houses where infectious disease occurred during 1894, and he points out that many of these businesses would easily lend themselves to the propagation of infectious disease were not vigorous steps taken as a result of notification. The sanitary authority of Islington is to be congratulated on having erected during 1894 what appears to be an eminently modern disinfecting station. In it are provided two steam disinfecting chambers, a laundry, an office, two shelters for the vans used for the conveyance of infected and disinfected clothing respectively, and a crematorium for the destruction of infected bedding &c. It is the laundry which is a new departure, and it has been erected owing to the experience which Mr. Harris has acquired elsewhere that articles not infrequently arrive in a filthy condition, and that their return in that same state, although efficiently disinfected, has given rise to the belief in the popular mind that they have been instrumental in the spread of disease. For the future soiled articles will be returned only after having been carefully cleansed in the laundry. A shelter under Section 60 of the Public Health (London) Act, 1891, was also erected in 1894, so that the district must be congratulated upon having made considerable progress in the matter of its sanitary provisions.

Leeds Sanitary District.—The year 1894 will stand out in the sanitary chronicles of Leeds as that in which compulsory notification was adopted. The Act came into force on May 1st, 1894, and between that date and Dec. 30th as many as 1448 notifications were received, figures that will convey some idea of the large amount of extra work thereby entailed. Of the 1448 cases 500 were isolated in hospital, the fatality-rate amongst these being 4·8 per cent. as against 9·7 amongst those treated at home. As, however, Dr.

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Spottiswoode Cameron points out, too much reliance must not be placed upon the proportions thus brought out; the numbers are small and relate to only eight months of the year. There are also questions of class differences, of cases too ill to be removed, and of unrecognised and consequently unnotified cases to be allowed for in these calculations; as also, on the other side, cases sent into hospital when all chances of recovery are past. In that portion of his report dealing with zymotic diseases Dr. Cameron gives an interesting account of the small-pox cases. He points out that the case mortality figures for the four years 1891–94 exhibit, as far as such small numbers will allow of an inference, a good indication of the increase and decrease of virulence on the rise and fall of the epidemic, the rates per cent. being for the four years respectively 2, 6·3, 5·5, and 2·2. There were during 1894 93 cases of small-pox, and of these 90 were removed to hospital. There were 314 persons temporarily isolated at the sanatorium cottages during the year, and of these 260 were from houses undoubtedly invaded with small-pox. Out of this number 2 had developed the eruption before they had arrived at the sanatorium, and a third developed it the day after arrival. Omitting these three there were 13, or 5 per cent., out of the total 257 who developed small-pox while under observation. Of the 257 cases who had been in contact with small-pox 22 had already had the disease or been revaccinated before exposure, and of these none were attacked. Out of 198 persons of ages varying from five months to seventy-one years, all of whom had been vaccinated—for the most part in infancy—4 per cent. developed small-pox. In 17 cases there was insufficient evidence as regards vaccination, and of these 1 (6 per cent.) contracted the disease; while of 20 who were admittedly unvaccinated before exposure, 4 (20 per cent.) had small-pox. Some very interesting figures are also given by Dr. Cameron showing the value of vaccination and revaccination after exposure to small-pox. Among the numerous other questions dealt with in this interesting report Dr. Cameron gives an excellent example of the necessity for systematic drain testing; he tells us that during 1894 the testing of 2038 drains, made in consequence of the presence of infectious disease, revealed no less than 1653 defects; and in reference to the results of a localised testing of drains, due to an outbreak of diphtheria, Dr. Cameron observes that "had the houses been examined and tests applied as part of the previous systematic house-to-house examination of the ward, it is probable that we should not have had to examine so many of them afterwards on account of illness." There occurred in Leeds during 1894 an outbreak of what was apparently ptomaine poisoning due to the consumption of potted meat; some dozen persons who had partaken of this were attacked with symptoms of English cholera. The sanitary condition of the premises in which the meat was manufactured was not, it appears, altogether unfavourable to the development of putrefactive organisms; and in this connexion Dr. Cameron observes that, although two inspectors are told off to inspect all the meat shops in the city, they have, besides, the inspectorial supervision of the fish and fruit market and the 130 private slaughter-houses dotted about the 22,000 acres of the city. And what, he asks, are they among so many?

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 5920 births and 3906 deaths were registered during the week ending Jan. 25th. The annual rate of mortality in these towns, which had been 18·4 and 19·7 per 1000 in the two preceding weeks, declined again last week to 18·8. In London the rate was 18·6 per 1000, while it averaged 18·9 in the thirty-two provincial towns. The lowest rates in these towns were 12·2 in Cardiff, 13·0 in Brighton, 14·0 in West Ham, 14·8 in Gateshead, and 14·9 in Bristol; the highest rates were 21·8 in Burnley, 22·5 in Bolton, 22·7 in Manchester, 24·6 in Liverpool, and 25·0 in Salford. The 3905 deaths included 492 which were referred to the principal zymotic diseases, against 508 and 564 in the two preceding weeks; of these, 142 resulted from measles, 128 from whooping-cough, 95 from diphtheria, 59 from scarlet fever, 42 from "fever" (principally enteric), 26 from diarrhœa, and not one from small-pox. The lowest death-rates from these diseases were recorded in Brighton, Oldham, Swansea, and Derby, and the highest rates in Burnley, London, Bolton, and Birmingham. The greatest mortality from measles occurred in London, Leicester, and Birmingham; from scarlet fever in Wolverhampton; from whooping-cough in West Ham, Birkenhead, Portsmouth, and Bolton; and from "fever" in Gateshead. The 95 deaths from diphtheria included 51 in London, 12 in Birmingham, 4 in Salford, and 3 each in West Ham, Liverpool, Burnley, and Hull. No fatal case of small-pox was registered last week either in London or in any other of the thirty-three towns. There were 70 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, Jan. 25th, against 68, 66, and 73 at the end of the three preceding weeks; 14 new cases were admitted during the week, against 9, 20, and 17 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2916, against 2830, 2832, and 2883 on the three preceding Saturdays; 290 new cases were admitted during the week, against 320, 295, and 280 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 320 and 336 in the two preceding weeks, further rose to 356 last week, but were 253 below the corrected average. The causes of 58, or 1·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Cardiff, Oldham, Bradford, Hull, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Birmingham, Nottingham, and Salford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the three preceding weeks from 21·0 to 19·5 per 1000, rose again to 20·1 during the week ending Jan. 25th, and exceeded by 1·3 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·4 in Leith and 15·8 in Edinburgh to 22·2 in Perth and 29·3 in Dundee. The 586 deaths in these towns included 29 which were referred to whooping-cough, 11 to diarrhœa, 9 to measles, 4 to diphtheria, 3 to "fever," 3 to scarlet fever, and not one to small-pox. In all, 59 deaths resulted from these principal zymotic diseases, against 63 and 73 in the two preceding weeks. These 59 deaths were equal to an annual rate of 2·0 per 1000, which was 0·4 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 23 and 38 in the two preceding weeks, declined to 29 last week, of which 13 occurred in Glasgow, 8 in Dundee, and 6 in Aberdeen. The 11 deaths from diarrhœa showed a further decline from the numbers recorded in recent weeks, and included 4 in Glasgow and 3 in Dundee. The fatal cases of measles, which had been 14 and 6 in the two preceding weeks, rose again to 9 last week, of which 5 occurred in Glasgow and 4 in Greenock. The 4 deaths referred to diphtheria showed a slight further increase upon recent weekly numbers, and included 2 in Dundee and 2 in Aberdeen. The fatal cases of scarlet fever, which had been 2 and 6 in the two preceding weeks, declined again to 3 last week. The deaths referred to different forms of "fever," which had been 4, 3, and 5 in the three preceding weeks, declined to 3 last week. The deaths from diseases of the respiratory organs in these towns, which had been 131 and 136 in the two preceding weeks, further rose to 142 last week, but were 44 below the number in the corresponding period of last year. The causes of 34, or more than 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the three preceding weeks from 28·8 to 22·5 per 1000, rose again to 27·4 during the week ending Jan. 25th. During the past four weeks of the current quarter the rate of mortality in the city has averaged 26·8 per 1000, the rate during the same period being 19·0 in London and 16·3 in Edinburgh. The 184 deaths registered in Dublin during the week under notice showed an increase of 33 upon the number in the preceding week, and included 11 which were referred to the principal zymotic diseases, against 7 and 4 in the two

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preceding weeks; of these, 6 resulted from "fever," 3 from diarrhœa, 1 from scarlet fever, and 1 from whooping-cough, but not one either from small-pox, measles, or diphtheria. These 11 deaths were equal to an annual rate of 1·6 per 1000, the zymotic death-rate during the same period being 3·0 in London and 0·9 in Edinburgh. The deaths referred to different forms of "fever," which had been 2 in each of the two preceding weeks, rose to 6 last week—a higher number than in any week since October last. The 184 deaths registered in Dublin last week included 36 of infants under one year of age, and 60 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked increase upon the numbers recorded in the preceding week. Twelve inquest cases and 9 deaths from violence were registered; and 52, or more than a fourth, of the deaths occurred in public institutions. The causes of 18, or nearly 10 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL MOORE-KEYS and Surgeon-Major Barker have arrived from Jamaica, and Surgeon-Captains Clapham, Ferguson, and Graham from Barbadoes on completion of a tour of service. Surgeon-Majors Hayes and Johnstone, and Surgeon-Captains Brown and Edge have arrived at Hong-Kong. Surgeon-Major Lyle has embarked for India.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel George Corry retires on retired pay.

INDIA AND THE INDIAN MEDICAL SERVICES.

The services of Surgeon-Lieutenant-Colonel A. Scott Reid, M.B. (Bengal), M.O., 2nd Battalion, 4th Gurkha Regiment, are replaced at the disposal of the Military Department. Surgeon-Colonel R. P. Ferguson, A.M.S., P.M.O., Sirhind District, is appointed to officiate as P.M.O., Bengal Command, with the temporary rank of Surgeon-Major-General, vice Surgeon-Major-General T. Maunsell, C.B., P.M.O., Malta. Brigade-Surgeon-Lieutenant-Colonel W. J. Charlton, A.M.S., is appointed to officiate on the Administrative Medical Staff of the Army, with the temporary rank of Surgeon-Colonel, vice Surgeon-Colonel R. P. Ferguson. The services of Surgeon-Captain W. H. Gray (Bengal), M.O., 19th Punjab Infantry, are placed at the disposal of the Chief Commissioner of the Central Provinces. The services of Surgeon-Captain A. G. Hendley (Bengal) are placed permanently at the disposal of the Chief Commissioner of the Central Provinces. The services of Surgeon-Major F. F. Perry are replaced at the disposal of the Government of the Punjab. The services of Surgeon-Captain R. C. MacWatt (Bengal), Superintendent of the Central Gaol at Raipur, are replaced at the disposal of the Military Department.

NAVAL MEDICAL SERVICE.

The following appointments are notified:—Surgeon H. B. Hall to the *Ganges*, Civil Practitioner A. Macintosh to be Surgeon to Agent at Port Patrick.

LEEDS VOLUNTEER MEDICAL STAFF CORPS.

Surgeon-Colonel W. D. Wilson, A.M.S., Principal Medical Officer of the North-Eastern District, presided on Jan. 24th at the annual distribution of prizes in connexion with the Leeds Company Volunteer Medical Staff Corps, in the Drill Hall of the Leeds Rifles. Among those present were Surgeon-Captain Croft, Brigade-Surgeon-Lieutenant-Colonel Loe, Surgeon-Major W. Symes, Surgeon-Major Richardson, Surgeon-Captain Brown, Surgeon-Captain Grange, Surgeon-Lieutenant Nightingale, and Surgeon-Captain Birch. Surgeon-Colonel Wilson, who congratulated the company on their efficiency and sound financial position, said he noticed that they had not a sufficient number of officers. He regretted that, for this was a scientific corps, and as such should have its full complement of officers. Medical men in civil life had little time to devote to external duties, and it was only the most enthusiastic members that could find time for the Volunteer Medical Service. If honour were measured by dangers incurred, the Medical Services would be at the top, or near the top, of the roll of honour. Their services in defence of their country might never be required, but it was necessary in these days to be ready. England could not hope to hold her vast possessions if she was not ready to defend them; and if the regular army left our shores the defence of this country would fall principally on the Volunteers, and they would be called upon to bear their part. Let their motto, therefore, be "Ready."

THE ITALIANS IN EAST AFRICA.

The Italian force has shown great fortitude, as well as gallantry, under very trying circumstances in Abyssinia. The garrison of Makaleh especially, under the command of Colonel Galliano, has been hard pressed. The water-supply was exhausted, and the unfortunate horses and other animals in Makaleh must have undergone great suffering from the water famine. The garrison of the fort had been put on a ration of a quarter of a litre a day of the only water obtainable, and this is stated to have been of bad quality. The Abyssinians behaved with a consideration which was somewhat magnanimous under the circumstances. King Menelik supplied the garrison with water and authorised the departure of the troops to Adigrat with the wounded, the women, and the army ammunition and baggage, Ras Makonnen giving a guarantee for the due performance of the engagements undertaken. Colonel Galliano and the Italian garrison consequently marched out of the fort, under the protection of Ras Makonnen, with the honours of war, advancing by short stages in order to affect the easy transport of the wounded. It is stated that King Menelik has proffered proposals for peace to General Baratieri, in command of the Italians in Africa, but it is not known whether these will be accepted.

THE REBELLION IN CUBA.

Amid the military expeditions, wars, and political excitements of the day the insurrection in Cuba occupies a place, for it forms a formidable difficulty for Spain, the situation being of rather a critical character at the present time. The Spanish Government has a very large and a very costly force in Cuba. In addition to the losses from fighting various desultory engagements with the insurgents in a kind of guerilla warfare, the Spanish troops have suffered much from fever and other diseases incidental to armies in the field. Marshal Campos will soon be relieved by General Weyler, who is to be the new Commander-in-Chief in Cuba. Uncommonly little is known of the medical state of affairs in Cuba and of the losses which the Spanish force has sustained from sickness, wounds, and invaliding since the commencement of the Cuban campaign, but these must have been considerable.

DEATH IN THE SERVICES.

Surgeon-Major John Adsetts, M.R.C.S., L.S.A., A.M.S. (Retired List), at Derby, on Jan. 18th, aged fifty-nine years. He joined the Army June 13th, 1859, became Surgeon-Major Dec. 16th, 1874, and retired June 4th, 1876.

Surgeon-Colonel Lionel Dixon Spencer, C.B., M.D., M.R.C.S., I.M.S., has been granted a good service pension of £100 per annum. In his capacity as principal medical officer of the Punjab Frontier Force he served with the Waziristan Field Force under Sir Wm. Lockhart in 1894–5, and was mentioned in despatches, receiving the Companionship of the Bath and the medal with clasp. He entered the Army in 1865, and was made Surgeon-Colonel in 1892.

Surgeon-Captain C. Duer, I.M.S., has passed the Higher Standard Examination in Pushtu.

THE HOSPITAL QUESTION AT SOUTHAMPTON.—The congestion of isolation accommodation at Southampton has led to the closing of the West Quay Hospital to further cases of infectious disease. A disused factory was offered to the health committee of the council, but the great expense that would be necessary to fit it for the purpose and other reasons have led the committee to decline the offer. Should the efforts which are now being vigorously put forward to secure a suggested site for a new building prove successful a temporary erection will be constructed to relieve the crowded Quay Hospital. Sixty-eight cases of infectious disease were notified during the month of December, of which fifty-two were of scarlet fever. The county council of the town last week instructed the medical officer to put in force the cholera regulations against ports in the Black Sea, Constantinople, and Alexandria.

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Correspondence.

"Audi alteram partem."

THE MANUFACTURE OF DRUNKARDS AND DRUGGARDS.

To the Editors of THE LANCET.

SIRS,—In common, doubtless, with the profession in this country generally I have received an invitation to take debentures in a certain company who are pushing two wine compounds. You, Sirs, have raised your voice against this scheme of inducing medical men to become pecuniarily interested in the sale of special preparations, and I had hoped your strictures would have prevented a repetition of the attempt—at any rate, by the same offender.

I must confess to a feeling of humiliation when I read that 6000 testimonials have been received in favour of these two drinks. Certainly it would appear that gratitude is a feeling easily provoked in the profession by a liberal supply of samples. Is it not true that the whole question of the use of medicated wines was discussed? Why should malt, iron, coca, and bark have their "wines"? The answer should be, not that it is necessary for these foods or drugs to be given with wine, but because the public are glad of any excuse for taking stimulants or narcotics. Under the cloak of "tonic and dietetic" wine compounds many people are led into the habit of secret drinking. And what shall we say if the profession by testimonial giving and prescribing help on this undesirable state of things? Surely when wine is needed we can order it in whatever kind and amount we think fit and the drugs in a separate prescription. Why jumble them up together? There can be no doubt that immense injury accrues to the community by the reckless use of coca, malt, and other made-up wines for the road to the habitual use of actual narcotics from drugged wine-taking is as easy as it is fascinating. It would be well-nigh impossible to obtain a trustworthy account of the manner in which the slaves to narcotics were led into their bondage, but the bare possibility that we may, by prescribing these compounds, forge the first link of a chain that will later bind the victim down should make us realise our responsibility. A chemist who was formerly one of a large staff of dispensers at one of the well-known coöperative stores gave me a startling account of the enormous sale there of narcotic drugs, especially to women. Some of the customers had weekly supplies, such as three dozen ¼ gr. of morphia in packets the size of a postage stamp, 90 ¼ gr. ext. opii pills, and another twenty-four sulphonal powders. One lady had periodically liq. morph. hypoderm. ℥ii. What, then, should be the attitude of the profession in this matter? 1. That we should strictly refuse to have any commercial interest in the class of preparations here referred to. 2. That we should prescribe wine and drugs separately and in specified quantities. 3. That in prescribing narcotics we should order them in such a form as to make it difficult for the patient to obtain the drug in large quantities. I am, Sirs, yours truly,

Weymouth-street, W., Jan. 17th, 1896. CHAS. W. CHAPMAN.

"WHAT IS A 'NATURAL LABOUR'?"

To the Editors of THE LANCET.

SIRS,—The letter of Dr. Fraser upon this subject should not pass unchallenged. Ten days before the meeting at which he had occasion to speak he had, alike with all the other members of the Lancashire and Cheshire Branch of the British Medical Association, a printed copy of the Midwifery Nurses Bill and the amendments which were to be submitted to that meeting. These amendments were considered and adopted by the council immediately before the branch meeting, and the President distinctly stated this before the discussion upon the Bill and the amendments was entered upon, carefully indicating that the Bill as it then stood included those amendments — in fact, as far as the council was concerned, they were a part of it. Amongst Mr. Horace Jefferies' series of amendments was one amplifying the definition, inasmuch as the system of medical control was definitely indicated by the adoption of regulations, restrictions, instructions, and method of medical control and supervision embodied in an appendix to the Bill, so that the definition before the meeting was: "In this Act the term midwifery nurse means a woman who attends cases of natural labour and afterwards tends the mother and child during the lying-in period, under the rules, regulations, and medical control or supervision set forth in this Act and the Appendix thereto, and any amendments of or additions to such Appendix which may be from time to time laid down by the Midwifery Nurses Board."

Your correspondent avoids any reference to this amendment. Dr. Fraser also had a copy of the appendix containing these restrictions and regulations. The following are examples of the conditions in which it is imperative that the midwifery nurse should call in a medical man:—In all cases of ruptured perineum as soon as it occurs. If the placenta is not expelled in an hour after the birth of the child, even if no bleeding has occurred. In the apparently dead new-born child. In presentation of hands, feet, or when the cord presents with the head. If the patient or her relations wish for a medical man, even if the midwife does not see any abnormal symptoms, she is not to object. She must bring before the notice of the coroner every case of still birth, no matter at what period of development. Surely it is of no moment whether you speak of natural labour or not, seeing that the duty of determining what this is is entirely removed from the discretion of the midwifery nurse, nor for the matter of that does it signify whether she be called a midwife, nurse-midwife, or midwifery-nurse, her duties are laid down in this Bill and its Appendix with such scrupulous definiteness.

Now Dr. Fraser persisted in reading a long written speech with which, and the valuable legal opinion, he came armed, neither of which were in the least applicable to the Bill under discussion. This speech was made in support of an amendment to the Bill proposed by Mr. R. H. Wolstenholme, in which objection was taken *inter alia* to one clause because it "failed to sufficiently protect the rights of registered medical practitioners." I quite admit that it would have been a difficult task for Dr. Fraser to address himself to the altered conditions at so short a notice, because his prepared speech showed clearly that he had disregarded the amendments of which he had warning, especially seeing that he took for the text of his speech a report drawn up by three gentlemen constituting the Parliamentary Bills Committee of the Medical Guild. As to the worthlessness of the term "natural labour," Dr. Fraser would wish us to regard him as the first to have seen through the faultiness of the perplexing definitions of this term to be found in the various text-books. The absurdity of applying to a firm of solicitors for a definition of a phrase upon which the medical profession cannot agree is clearly pointed out in the reply he received from Messrs. Boote and Edgar, who point out that the "legal significance" must be decided upon the evidence of medical experts.

Allow me to make reference to another clause of Dr. Fraser's text. He asked the meeting to condemn section 1 of Clause 3 because it only prevents the assumption of "titles." An amendment of my own, which was also adopted by the Council, makes it penal for any midwife to practise without being registered under this Act. The position Dr. Fraser had placed himself in was effectively exposed by Dr. Woodcock and Dr. Ritchie, and the amendment which he had supported was rejected by an overwhelming majority.—I am, Sirs, yours faithfully,

Old Trafford, Jan. 21st, 1896. JAMES BRASSEY BRIERLEY.

To the Editors of THE LANCET.

SIRS,—The Lancashire and Cheshire Branch of the British Medical Association has adopted a draft Midwifery Nurses Bill in which the term "natural labour" occurs three times, but in which there is not the slightest attempt at a definition of that term. The official defenders of the Bill (especially Dr. Brierley of Manchester) now maintain that this expression has "no meaning whatsoever" and "no value whatever." If this be the case, why was it inserted in the Bill at all, and why did not one of them move its deletion! Can it be possible that it was only inserted as a "placebo," to give the profession a feeling of security, however false? If the phrase has no meaning let it be deleted; if it has a meaning let it be clearly defined. The supporters of the Bill appear to derive great satisfaction from the amendments proposed by Mr. Jefferies and accepted at the last moment by the Council. The fact that they were

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deemed essential is sufficient evidence of the character of the draft Bill when first submitted to the branch. The amendments themselves are taken from the Austrian Code (1881) for the regulation of the practice of midwives in Austria, and a single glance at them will show with what security they may be relied on to protect the interests of the public in this country. *Regulation 8:* "Midwives are most strictly forbidden to undertake any operation upon women in pregnancy, labour, or lying-in, or children, *unless in urgent necessity*." It appears to me that the last clause takes away the protective character of the entire rule, whilst the bare possibility of a "registered midwifery nurse" performing operations during pregnancy, &c., ought to make the profession extremely careful.

Dr. Brierley writes in another place about the "stupidity of asking a midwife to determine during the course of a labour when the case ceases to be physiological and becomes pathological," and yet the Austrian rules which he so highly commends not only require her to do this, but also empower her to operate, and apparently trust her with the responsibility of determining the "urgency" thereof.

Austrian code.—B. 7. "Midwives are bound in all cases of abnormal *pregnancy*, labour, or lying-in to demand medical assistance." If the nurse, whom it is proposed to register in England, is unable to recognise a "natural labour," how can she diagnose an "abnormal pregnancy"? Also, *a.* (1) If she suspects or has *discovered* a narrow pelvis. *b.* (1) In all cases of abnormal position, if possible before the liquor amnii escapes; (7) in presenting placenta, even when she does not at the moment of examination perceive any bleeding. It appears to me that a midwife who could carry out the above instructions would be quite able to recognise a "natural labour," however it might be defined.

With regard to the proposed Bill, the value of its restrictive clauses depends entirely upon whatever use the proposed Midwifery Nurses Board might make of them. That body is to play the part of the *deus ex machinâ*. On its appearance the demands of the midwives, the privileges of the profession, and the interests of the public are all to be adjusted. To this hypothetical body, whose constitution is uncertain, and whose laws are not yet written, is to be entrusted the control of three-fourths of the midwifery practice of the future. Its judgment is to be final with regard to the "professional status" of probably 20,000 midwives, yet this draft Bill proposes that not a single representative of the midwifery nurses shall have a seat on its board. This proposal is absurdly inequitable and certain not to be accepted; nevertheless, upon this embryonic "board" the profession is invited to rely. The General Medical Council is supposed to have similar powers over the medical profession, and many of us have our own opinions on the masterly manner in which that august body succeeds in doing nothing. Suppose for a moment that the proposed Midwifery Nurses Board adopt the same policy of *inertia*, by how much, I wonder, will the world be benefited by the draft Bill of the Lancashire and Cheshire Branch.

I am, Sirs, yours truly,

Salford, Jan. 25th, 1896. R. H. WOLSTENHOLME.

"THE BATTLE OF THE CLUBS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Jan. 18th I note the following from the pen of your Special Commissioner: "Sometimes they [i.e., dispensary medical officers for friendly societies] are retired naval medical officers, who have acquired such a rough manner in dealing with sailors that they give offence to a civil population comprising many women and children." Now, Sirs, I venture to say that he is completely mistaken in this. I can quite understand a naval surgeon whose name has been removed from the Navy List for conduct unbecoming an officer and a gentleman accepting the position of surgeon to a medical aid association—he would be just the man for the berth; but I should be astonished to find any respectable surgeon on the retired list who would disgrace himself and disgrace the service by accepting such an appointment. I should be surprised even to find that a Surgeon R.N., retired, would do club work of any description. Your correspondent's remarks *re* a rough manner in dealing with sailors are uncalled for. The British tar is one of the finest fellows in this wide world. Lord Charles Beresford says he is a far better specimen of a gentleman than many West-end swells, and I thoroughly agree with him. At any rate, he is a god upon earth compared with a club patient. Naval surgeons know all this well, and, instead of being rough to Jack, have the greatest respect for him. Jack, too, respects his medical man, and speaks of him as "Mr." or "Dr.," as the case may be. This cannot be said of the club patient, who speaks of his medical man as Brown, Jones, or Robinson. In my opinion it is just the style of treatment that Brown, Jones, and Robinson deserve. I could mention things connected with club and medical aid practice in this town that would make the great Wakley turn in his grave. You, Sirs, deserve the thanks of the profession for your efforts, but I fear you are on the "wrong tack"; you will never unite the profession. You will only effect its reformation by inducing the General Medical Council to wipe all "blacklegs" off the Register or getting the licensing bodies to withdraw their diplomas. I myself am opposed to club work of every description. I think the profession should recognise two classes—viz., those who are able to pay and those who are not. The former should be made to pay small or large fees, according to their means. The latter should be looked after by the parish medical officer, who should be paid handsomely for his services. I am, Sirs, yours truly,

Jan. 27th, 1896. SURGEON, R.N. (retired).

To the Editors of THE LANCET.

SIRS,—Much of the work would be done in fighting the low club rates if the General Medical Council would pass a by-law counting touting or canvassing for individual practitioners by means of paid canvassers or collectors infamous conduct.—I am, Sirs, yours truly,

LENNOX WAINWRIGHT.

Sandgate-road, Folkestone, Jan. 14th, 1896.

ELECTION OF A DIRECT REPRESENTATIVE FOR IRELAND ON THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—At a meeting of the medical profession of the city and county of Cork, held on Jan. 25th, the following resolution was unanimously adopted:—"That the Cork medical profession undertake the preliminary poll for a direct representative on the General Medical Council between the three provincial practitioners now before us—i.e., Dr. Cuming, Dr. Greene, and Dr. MacDonnell—provided the expenses incurred are guaranteed, and that the unsuccessful candidates agree to retire in favour of the candidate who receives the greatest amount of support." A committee was appointed with full powers to carry out this resolution. Having got guarantees on these points, the Cork profession are now carrying out the preliminary poll, for which it is expected that voting cards will be issued on Friday next, and the result will be declared on that day week, of which we will send you notice. I am, Sirs, yours truly,

St. Patrick's-hill, Cork, Jan. 28th, 1896. PHILIP LEE.

To the Editors of THE LANCET.

SIRS,—As the election of a direct representative for Ireland to the Medical Council takes place shortly, and as no definite programme has been placed before the electors, may I, as one deeply interested in the subject of direct representation, suggest that the candidates should give answers in THE LANCET to the following questions, so that their views may be fully understood.

Questions: Will you *actively oppose?*—1. Any proposal which has for its object the formation of any inferior order of medical, surgical, or midwifery practitioners, and so oppose the proposed repeal of the Medical Act, 1886. Will you *actively support?*—2. The proposed increase in the present number of direct representatives on the Medical Council. 3. Any measure which will make the entrance examination much more stringent than it is now, so that undesirable persons may be "weeded out" at the *beginning* of the medical curriculum and not at its *termination*, and so that the present large supply of by the medical schools and examining bodies, may be greatly lessened. 4. Any proposal which will bring back the system of apprenticeship so that practitioners may be

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supplied with assistants. (By an "apprentice" is meant a person who has passed the entrance examination, put in three years of his medical curriculum, passed the first and second medical examinations, who is not more than twenty-four years of age, who must not act as an apprentice for more than two years, and where not more than one such is employed by a practitioner.) 5. The formation of one medical examining board in each of the three divisions of the United Kingdom to conduct the final examination only; all the previous examinations to be conducted as at present arranged. 6. The proposal that no person shall be permitted to begin his or her medical curriculum until such person has completed the age of eighteen years. 7. The opening of Poor-law infirmaries for the clinical instruction of medical students, and the recognition of such places of instruction by the medical examining bodies. 8. The compulsory registration of all stillborn infants. 9. The amending of the Births and Deaths Registration Act and the providing for the payment out of the public funds of practitioners for medical certificates of the cause of death.

Answers to these questions would concentrate discussion, provide a definite programme, and allow of a complete understanding of the views held by the candidates upon some of the most anxious questions of to-day.

I am, Sirs, yours faithfully,

Liverpool, Jan. 27th, 1896. ROBERT R. RENTOUL.

THE CASE OF MR. R. B. ANDERSON.

To the Editors of THE LANCET.

SIRS,—May I ask the favour of space for the enclosed letter and to be allowed to express my very sincere thanks to Barbados for its kind and liberal help and for the terms in which it is conveyed? In that independent and high-spirited community I first found response to the appeal of the oppressed colony of Trinidad and Tobago and to my own; the members of the branch last year subscribed most liberally to the funds, and this spontaneous continuance to me of that help which I so greatly need is for these reasons doubly valued. I propose to hand the P.O.O. to the Civil Rights Defence Committee, and ask that some part of the whole of it be paid to me for "Personal Expenses Fund," so kindly and thoughtfully commenced by Dr. Robert Barnes, F.R.C.S. Eng., which the committee is good enough to administer. Prior to the creation of this fund I had most kind personal assistance, which I hope now to obtain permission to include in it and to thus acknowledge, and for which, as well as the kindness and public spirit of subscribers to the appeal funds, I desire to be permitted to express my warmest thanks. Fully believing we shall achieve eventual success,

I am, Sirs, your obedient servant,

30, Montague-place, W.C., Jan. 22nd, 1896. R. B. ANDERSON.

[COPY.]

"Briarfield, Barbados, B.W.I., Jan. 10th, 1896.

"R. B. Anderson, Esq., F.R.C.S. Eng.

"DEAR SIR,—At a meeting of the Barbados Branch of the British Medical Association, held on the 13th ult., the subject of your continued 'judicial persecution' was strongly brought to the notice of members by our President, Dr. G. O'Donnell Walton. As an outcome the following resolution was moved at a full meeting on the 3rd inst. by Dr. J. R. Phillips, seconded by Dr. T. Law Gaskin, and carried unanimously, viz.: 'That £10 be granted from the funds of the Branch to Mr. R. B. Anderson towards his expenses, whether personal or legal, in his present endeavour to obtain justice.' I therefore have much pleasure in enclosing herewith a P.O.O. for that amount, payable to you at the G.P.O., London, to be applied by you in accordance with the terms of the resolution.

"I am, dear Sir, yours faithfully,

"E. HOWARD BANNISTER, Hon. Sec."

METRO-PERITONEAL FISTULA IN A CRIMINAL PROSECUTION.

To the Editors of THE LANCET.

SIRS,—The pitfalls in the course of the practice of medicine are sufficiently numerous already, and any addition to them may indeed be viewed with dismay. That a condition so rare as peritoneal fistula is to rank as this addition will be regarded with surprise, for I do not believe that I have yet persuaded all my professional brethren as to the reality of its existence. Here, however, is a case which brings it out into reality with dramatic force. The narrative of the case is necessarily incomplete and to save your space I have shorn it of some unimportant details. The omission of most consequence is, Where did the catheter get out, or did it get into the peritoneum? Even if the latter I do not think it would matter, as the dates show it could not be there long enough to do much harm and the symptoms made it clear the patient was doomed from sub-acute suppurative peritonitis long before the catheter was inserted. I think with symptoms so grave, had she been under my care, her abdomen would have been cleared out early, but I have not yet carried my views sufficiently into the acceptance of my professional brethren for me to claim that this plan would meet with universal acceptance.

I am, Sirs, yours faithfully,

The Crescent, Birmingham, Jan. 20th, 1896. LAWSON TAIT.

"Clinton, Iowa, January 8th, 1896.

"SIR,—Your work on 'Diseases of Women and Abdominal Surgery' has been a help to me in my work, and the section on 'Metro-peritoneal Fistula' has thrown so much light on a recent case in my own practice for which I am unjustly suffering that I crave your valuable time while I relate it to you. I hope the same love of justice which is shown in your masterly work will prompt you to overlook my mistake and counsel by letter or confirm my diagnosis, by sending across the sea your opinion of this case, for the result of which I was indicted in November last for murder in the first degree. My trial to come off the latter part of January or February 1st. I ask for nothing you cannot conscientiously give, and your kindness will be deeply appreciated.

"Case of Mrs. Emily Johnstone: Seen first Aug. 5th, 1895, in poor general health, married six years, one child and one miscarriage, the full-time labour having occurred fourteen weeks before and having lasted about twenty hours; the perineum was badly lacerated and an attempt at its restoration had been made; did not rise from bed for a month and has been ill ever since. Her main symptoms were pain in back and lower pelvis, severe dysuria, thick, purulent, and offensive discharge from vagina with severe itching of vulva, pain in chest running down left arm, quick pulse, and high temperature, always over 100° at night. The urine was scanty, high coloured, and thick, patient frequently sick and always nauseated, in a condition of nervous excitement, and with varying appetite; excessive lactation. Pelvic examination showed that perineal damage went high up, and that cervix was large and patulous. The patient believed herself to be again pregnant on account of the nausea, but I assured her that she was not and that her condition was due to sub-involution of the uterus with its train of symptoms, endometritis with prolapse, and cystitis. I measured the uterus and found it three inches. A short time after she again expressed a belief that she was pregnant, so that on Aug. 16th I passed the sound easily through the open cervix to a depth of six inches, a fact which surprised me, but I felt sure it was due to the subinvolution, and that my first measurement was not correct. The subsequent history shows that I must have entered the abdominal cavity through a metro-peritoneal fistula, on the first occasion the sound having missed this opening. I attended her till Sept. 16th, her symptoms being but little changed, and then, again, she become convinced she was pregnant, no assurance convincing her to the contrary. I told her I would put a rubber catheter in, it could do no harm, and would prove to her she was not pregnant. Therefore on Sept. 18th I disinfected and inserted a catheter, which passed readily, leaving five or six inches in the vagina and guarding it with a tampon, telling her to remove it if there was pain. Immediately on reaching home she began to vomit, and tried to withdraw the tampon and catheter, but as it seemed to go further up she got alarmed and sent for me. I found the catheter had wholly disappeared. I could just feel it within the cervix, but could not remove it. I proposed to give her chloroform to remove it, but she would not consent until her husband came home next day.

"I called Dr. S. in consultation, as the symptoms were of increased severity, and told him the above story, who seemed to accept the woman's view that she was pregnant and that the catheter would come away with the products of conception. A few hours later, through a speculum, I made an effort to remove the catheter, and saw a yellowish membrane appear and disappear at the os; in a few moments I saw small intestine appear, and then knew there had been a rupture and that the intestine was coming down through it. By this time she had bearing-down expulsive pains. I again called in Dr. S., who called in three others, and after consultation it was decided to wait for morning light. The bowel was then five or six inches through the cervix and was becoming strangulated. Laparotomy was performed, but the patient died during the operation. The pelvic cavity was full of pus, and a rent in the fundus uteri nearly an inch in extent, with edges so friable that they would not hold sutures, and there was general peritonitis.

"A post-mortem examination was made by order of the coroner, and it was proved that she was not pregnant as she herself had believed, but the coroner's jury decided that I was guilty of unprofessional and unskilful treatment and I was committed to prison, but bailed out next morning. The grand jury brought in an indictment for murder in the first degree, and I am to be tried as I said.

"I am, very respectfully,

"E. P. PINNEY, M.D."

"SIR,—I have just received your letter with enclosed statement of the case of Mrs. Emily Johnstone. Assuming that the facts of the case are precisely as you have given them, it appears to me monstrous that you should have to defend yourself against such a charge. The explanation is, of course, the great rarity of the combination of circumstances in Mrs. Johnstone's case. There can be no doubt but that the labour you describe had caused a rent in her uterus and a permanent metro-peritoneal fistula, that the uterus remained, as it always does in such cases, sub-involuted, and therefore friable. The sub-acute peritonitis described broke down and ruptured its edges and permitted the extraordinary protrusion of intestine, and I would praise highly your astuteness in recognising such a remarkable occurrence and in refraining from damaging the intestine by futile attempts to remove it. In many hands—in fact I think I may say in most hands—

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this is undoubtedly what would have happened, and I do not think it would be seriously blamed.

"Instead of trying you for murder your prosecutors ought to congratulate you on your skill and good judgment. If time permitted I would willingly appear in the witness-box to sustain this my written opinion. Make any use of this you think fit. "LAWSON TAIT."

"THE NEW PHOTOGRAPHY."

To the Editors of THE LANCET.

SIRS,—I have so many applications, chiefly from medical men, for prints of my photographs of the hand that I have arranged with the Swan Electrical Engraving Company, 116, Charing-cross-road, to supply both photographic prints and printing blocks of this or any other of my subjects to anyone requiring them. I should be much obliged if you could kindly mention this in your next issue, as it will relieve me of pressure of correspondence and enable those who wish to get blocks or prints to apply directly for them.

I am, Sirs, yours faithfully,

A. A. C. SWINTON.

66, Victoria-street, London, S.W., Jan. 27th, 1896.

"A METHOD OF EXAMINING CLUB-FEET."

To the Editors of THE LANCET.

SIRS,—Mr. A. H. Tubby's paper in THE LANCET of Jan. 18th sets out ten points to which the surgeon's attention should be directed. But none of them refer to the condition of the toes as indicating in them physiological perfection, perverted activity, or suspended or defective function. And yet, as I have long been contending, there must be some relation between the functions of the toes and more than one of the conditions mentioned. It can hardly be, for instance, that the coexistence of claw-like toes with exaggerated arch (spoken of as "arcuatus" in the paper) is a mere coincidence. The relation of the two features can, as I think, be demonstrated, but that is not my present object.

I wish to point out conditions frequently to be found in the toes which ought to be noted when existent in a methodical examination of any defective foot. The great toe may be found to have been habitually packed in the median-pointed sock or boot over or under the second toe. The difference is important. The former position is compatible with a good deal of functional activity; so far as the toe can move it does so in the natural plane of movement—from its peculiar position of rest (extension and eversion) downwards and inwards. When, however, it is packed under the second toe the position of rest cannot be assumed at all, and any movement must be in a plane for which the joint at the base is not adapted. Habitual packing in this position is absolutely incompatible with free exercise of function, and, in such a case, the plantar arch often sinks because of the suspended function of its powerful tie-rod muscle, the flexor longus pollicis. The smaller toes should each afford evidence of habitual pressure downwards, and if the final joints be not capable of free extension, so that the final phalanges lie in full length on the ground when pressed against it, this shows that the flexors act too much as flexors and not as pressors downwards of these phalanges. The point is important in relation to the corns or thickened skin beneath the heads of the metatarsal bones, to which attention is directed in the paper. When the toes are firmly held against the ground by the flexor muscles the heads of the metatarsal bones are supported, and when borne down by the weight of the body are let down gently without sliding and therefore without friction. Functionally efficient toes and callosities on the sole are never found together. Altogether, it is not too much to say that, if the physiological state of the toes be determined, the condition of the foot as a whole may be predicted.—I am, Sirs, yours faithfully,

Gloucester, Jan. 25th, 1896. T. S. ELLIS.

VOLUNTEER MEDICAL ORGANISATION.

To the Editors of THE LANCET.

SIRS,—It is much to be desired that the report drawn up by the sub-committee of the Volunteer Medical Association on this subject, a notice of which appears in THE LANCET of Jan. 25th, 1896, will be published in such form that access to it may readily be had by all who are interested in this branch of the volunteer service. To judge from the extracts which your notice contains, the sub-committee's recommendations appear to be excellent, and criticism will be directed, I imagine, rather to what the report otherwise contains. Indeed, it would appear that the sub-committee have committed themselves to a proposition which I venture to think may be disputed. In the introduction or preamble the opinion is expressed "that the existing medical organisation was good so far as it went." Now, I ask, for how many parts of the country is this a correct description of what exists? We have, it is true, regimental surgeons innumerable, with a few bearer-companies, and companies of the Volunteer Medical Staff Corps here and there, but these surely are not seriously to be regarded as constituting an "organisation." Organisation implies the power of co-ordinated action, and these certainly have meantime not that, however fitted they may be to acquire it. Indeed, the whole question would seem to lie here. Is there at the present time existing in this country any volunteer medical organisation worthy of the name? The basis of much that does exist is the regimental system, and that system in the regular army broke down most thoroughly and completely when the introduction of quick-firing guns made the rapid development of military evolutions a necessity. Why should it be retained in the volunteer service? Should "organisation," indeed, not begin by the creation of a volunteer medical staff, on the lines of the army medical staff, to include regimental surgeons, as well as the officers of bearer-companies and of companies of the volunteer medical staff corps, so that something like uniformity would at least be afforded as a basis for development? None of us who are attached to regiments would want to leave them, I should think; but all of us, I believe, would derive some support in the discharge of our duties from the knowledge that we were in addition part of a larger medical "organisation" which was something less of a fiction and more of a fact than at present.

I am, Sirs, yours faithfully,

Glasgow, Jan. 28th, 1896. ARCH. K. CHALMERS.

ROENTGEN'S RAYS AS A CURE FOR DISEASE.

To the Editors of THE LANCET.

SIRS,—Do Roentgen's rays possess germicidal properties? If so, what a vast field of treatment is laid open. We should expect that many diseases due to microbes would be curable by simple exposure to these rays. We might hope even that pulmonary phthisis could be cured by direct action upon the bacilli, for it would not be difficult to flood the apex of a lung with Roentgen's rays. Professor Marshall Hall long ago proved that sunlight was a germicide, and he found the most powerful rays in this regard were placed towards the violet end of the spectrum near those having the greatest chemical activity. Roentgen's rays are ultra-violet and possess chemical activity; by analogy we should expect that amongst them would be found some having germicidal power.

I am, Sirs, yours faithfully,

Jan. 29th, 1896. THOS. GLOVER LYON.

MUNICIPAL MEDICAL APPOINTMENTS.

To the Editors of THE LANCET.

SIRS,—Your article in THE LANCET of last week calling attention to the action of the Dunstable Town Council with regard to their medical officer is well timed. A similar incident came under my notice some little time ago. A parochial board advertised for a medical officer. The appointment was given to one of the local men, each of whom is to have his turn, the appointment being only for a year. The curious thing is that the appointment was made fully two weeks before the advertisement appeared. This I have on the authority of one of the local men. There is a great deal of "red-tapeism" connected with these appointments, and now and then the officials are made to climb down, as the following will show. Nearly a year ago a certain corporation advertised for a medical officer. Applications were received in due course, but *each* applicant shortly afterwards received notice that the appointment had been filled up. The "Final" results of a university medical examination were announced, and you may judge of the surprise of one of the rejected applicants when he received a second note stating that he had been appointed to the vacancy. The post had been

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reserved for a son of a member of the corporation, but when the "Final" results appeared the young man was "out."

I am, Sirs, yours faithfully,

Jan. 28th, 1896. MEDICUS.

INJUDICIOUS FEEDING AT PUBLIC SCHOOLS.

To the Editors of THE LANCET.

SIRS,—May I be allowed to call attention to the injudicious system of feeding which is at present in force at some of our public schools? Only tea and bread and butter are provided at breakfast and tea. It may be doubted whether this is sufficient for a boy who occasionally is working hard and often playing football in all kinds of weathers. It is true that boys are allowed to provide themselves with such things as jam and tinned articles of food; the result may be readily anticipated. Boys at the age of thirteen or fourteen years are not over discreet, and as long as they have money they are liable to gorge themselves on food of doubtful wholesomeness to the exclusion of good honest bread and butter, so that when they come home it is difficult to get them to eat a breakfast unless all sorts of accessories are provided. Why cannot a daily portion of some wholesome extra be supplied, and nothing more and nothing else allowed? I venture to suggest that at the prices charged for board such a plan might well be adopted; or, if this is asking too much, let a proper charge be made—anything to avoid the wholesale introduction of these messes, which cannot but deprave the appetite if they do no further harm. The subject is important, and I hope you will consider it a fair one upon which the opinion of your readers may be elicited

I am, Sirs, yours obediently,

Jan. 13th, 1896. F.R.C.P.

THE BATTLE OF THE CLUBS.—XIX.[1]

(Continued from p. 264.)

THE FORMATION OF A PROVIDENT MEDICAL ASSOCIATION AT FOLKESTONE.

THE medical men of some towns on the south coast have set an excellent example to the profession in other parts of the country in their way of dealing with the urgent question of medical clubs. We have already described what has been done at Eastbourne and Bexhill, and it now becomes our pleasant duty to record that Folkestone has prepared an arrangement for meeting the requirements of the humbler class of patients without any sacrifice of the just rights or social position of individual practitioners. The rules and constitution of the Folkestone Provident Medical Association, an abstract of which is now laid before our readers, were drafted in accordance with instructions received from the Folkestone Medical Society on Dec. 4th, 1895, and were passed in their present form as a provisional scheme at the annual meeting of the society on Jan. 8th:—

RULES AND CONSTITUTION.

Object of the Association.

This Association, which has been formed with the approval of the Folkestone Medical Society, is a self-supporting society, to enable those persons living in Folkestone who cannot pay for medical attendance at the usual charges to secure for themselves and their families the advantages of medical attendance, advice, and medicine during illness.

Constitution.

The Folkestone Provident Medical Association shall be governed by a general committee and a working committee. The general committee shall consist of: (1) The entire Folkestone Medical Society; (2) the acting medical staff of the Folkestone Provident Medical Association; and (3) the honorary treasurer of the Association. The working committee shall consist of: (1) The entire acting medical staff of the Folkestone Provident Medical Association and one other member of the Folkestone Medical Society not on the acting medical staff, who shall be elected by the said society; and (2) an honorary treasurer elected by the acting medical staff. The working committee shall appoint a paid secretary, who shall not be entitled to vote at meetings, but who may be counted in the formation of a quorum. A quorum shall consist of at least three members of the acting medical staff. The working committee shall be empowered to conduct all the ordinary business incidental to the working of the Folkestone Provident Medical Association subsequent to the formation of its rules. They are not entitled to alter any of the rules now established without summoning a meeting of the general committee.

Conditions requisite for Joining Staff.

Any duly qualified and registered practitioner resident in Folkestone or the neighbourhood may become a member of the acting medical staff subject only to his appointment being approved of by the working committee. All members of the staff must undertake: (1) not to conduct clubs of their own at all, other than those of friendly societies registered under the Act; and (2) not to accept any appointment in any "medical aid (or similar) society," nor to have any professional intercourse (except in cases of extreme urgency which shall subsequently be reported to the general committee) with any medical practitioner holding any appointment in, or associating himself in any way with any of the so-called "medical aid societies," or with any similar company, so long as the methods adopted by these societies include—(*a*) The virtual sweating of their medical officer by the appropriation of the profits earned by his work; and (*b*) canvassing for members in the interests of individual practitioners.

Conditions of Membership.

Artisans and their families and others, who may be considered suitable by the working committee, shall be eligible for membership. No person can become a member who is in receipt of parochial relief. All applicants unless already members of a medical club must be in good health on joining, and must first be passed as such by one of the medical officers. Although a most desirable matter, it is very difficult in practice to adopt a hard-and-fast wage limit; and, therefore, it would appear that the best way of preventing abuse of the association by persons who are too well off will be by leaving absolute discretion in the hands of the working committee to consider the case of every applicant on its own merits. But as a general rule it may be laid down that in the case of families they shall be eligible if the combined incomes of the parents do not exceed 35*s.* a week at the rate of 1½*d.* a week for every adult—i.e., over twelve years of age—and 1*d.* a week for each child; and if the combined incomes do not exceed 25*s.* a week the charge shall be 1*d.* a week for parents and children alike. It will be expected that the whole of the family shall be entered in the lists (except in the case of those who are already members of a registered friendly society), but in large families not more than six children shall be charged for. Members joining after forty-five years of age shall be charged 2*d.* a week. The question of house rent shall also be taken into consideration by the working committee.

Servants.

Domestic servants, whose wages do not exceed £15 per annum, can be admitted as joining members by paying 2*d.* a week.

Single Persons.

Single persons shall pay at the rate of ½*d.* a week provided their income does not exceed 25*s.* a week; if over 25*s.* at the rate of 2*d.* a week; if over 30*s.* they are ineligible.

Of the paragraphs which exigencies of space compel us to omit, the most important are those providing (1) that persons in indifferent health can only join the association at special rates; (2) that members may be removed from the association if discovered to be in receipt of incomes disqualifying for membership; (3) that the fee for attendance at a confinement is one guinea; and (4) that a yearly report shall be read at the annual meeting of the Folkestone Medical Society.

At a meeting of the Sydenham District Medical Society, held on Jan. 16th, the following resolution, proposed by Dr. Bright of Forest-hill, was unanimously carried:—"That medical aid societies, as defined by the British Medical Association, are degrading to the profession and unworthy of support in any form."

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Sir Willoughby Wade.

A MEETING was held at the Medical Institute on the 17th inst. to decide upon the practical form that congratulations to the new medical knight, Sir Willoughby Wade, should take. Sir Henry Wiggin presided over a numerous and influential meeting of both lay and professional sympathisers. It was resolved to entertain Sir Willoughby Wade at a public dinner on Feb. 28th and to present him with an illuminated address. A committee was appointed to carry out the details. It is expected that a large assembly will take part in the proceedings to recognise the long services of Sir Willoughby Wade, which have earned for him such a mark of appreciation.

Health Lectures.

Under the auspices of the Midland Institute Dr. W. H. Line gave a lecture on the 10th inst. entitled "Up and Down the Ladder; or, Growth and Decay." There was a good audience. The chairman remarked that the series of lectures

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham; (18) Jan. 25th, 1896, Club Practices in Rural and Mining Districts.

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given in the institute had been the cause of much attention being given to the laws of health. At the urgent request of the institute council the Science and Art Department had now included hygiene in their list of subjects, thereby ensuring its being taught throughout the country far more widely than before. It is not for lack of material that the public fail to become acquainted with the details of the laws of health. The Athletic Institute also publish a list of lectures, with the names and titles in full of the lectures, an advertisement which has brought out a criticism not unwarrantable as to the professional propriety of such a form of announcement in the public press and on the walls of various advertising stations in the town.

Midland Counties Home for Incurables.

The Earl of Warwick presided over the annual meeting of this institution on the 16th inst. at Leamington. The report stated that there had been 17 admissions during the year, and the home now contained 55 patients. The total income was £4674 13*s.* 6*d.*, and after transferring £300 to the reserve fund a balance of £270 10*s.* 2*d.* remained in hand. Allusion was made to the interest the Countess of Warwick took in the institution, and various votes of thanks were passed.

Water-closets versus Ashpits.

An appeal against an order of the magistrates to close up two ashpits and provide receptacles with waterproof covering for ashes, and to convert eight privies into water-closets on certain premises, was heard at the quarter sessions on the 21st inst. The extreme risk of the ashpits in question was proved by the medical officer of health, who stated that several cases of typhoid fever had occurred in the immediate vicinity. The arguments were ably sustained by eminent counsel, and in the end the Recorder dismissed the appeal, thus allowing the Health Committee policy of abolishing the ashpit system of sanitation to be upheld. Individual opinion, backed by tradition, has received an appropriate defeat by this proceeding.

Jan. 25th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Manchester Chamber of Commerce and River Pollution.

CHAMBERS of Commerce are supposed to consist of the most enlightened members of the mercantile community, of those who take what are called broad views of trade and manufacture, whose aims are not limited exclusively to the filling of their own pockets, but who at the same time have regard to the effects of such things as the pollution of our streams and the excessive production of manufacturing smoke on the comfort and well-being of their neighbours and on their neighbours' property. From a paragraph in the report of the Chemical and Allied Trades' Sectional Committee, which accompanies the annual report of the directors of the Chamber, it would seem that this estimate is scarcely borne out. The report says: "Regarding river pollution and smoke prevention, the committee desires it to be understood that, in its opinion, the method at present pursued by the Mersey and Irwell Joint Committee in proceeding against manufacturers for the *alleged* pollution of streams, is open to very serious objection as being prejudicial to trade and consequently to the interests of the community in general." Everyone knows that the condition of the Manchester Ship Canal is foulness itself. Pollution has for years existed unchecked from the remotest parts of the watershed of the two rivers, and in dealing with it the joint committee has had a hard task. The great complaint, heard again and again, has been that it has been too patient, too lenient. Every assistance and encouragement have been given to those who have really tried to avoid polluting the streams receiving their drainage, and now this committee of chemical experts—who might devote a little of their scientific knowledge to the cleansing, instead of to the fouling, of our streams—complains of the "drastic measures" this too forbearing joint committee "seems disposed" to adopt. It is well, no doubt, to call out before being hurt. The report goes on to contrast what it is at present pleased to call "the enlightened example of the Manchester corporation," which has, it says, by the recognition of special difficulties on the part of the manufacturers, by "the rendering of mutual assistance, and the cessation of vexatious proceedings, effected an enormous improvement in the out-turn of black smoke from the chimneys of chemical and other manufacturers." It is only a short time since the chemical manufacturers of the district were making a special moan over their peculiar difficulties as to smoke, and little was then heard about the enlightened example of the Manchester corporation. The "joint committee" has for a long time past done just what it is complained of as not doing, and if now driven to use more "drastic measures" it is because "gentle suasion" has proved useless. Only the other day a gentleman living ten or twelve miles below Manchester, and some distance from the Ship Canal, was describing to me the effect produced by one of the large ocean steamers churning up its contents, especially in summer, when the smell was so bad that his windows had to be hermetically sealed for a time. Most of the tributaries of the Irwell enter it even yet, in spite of all that has been done, foul to a degree; and when their filthy contents become impounded and almost stagnant in the Ship Canal a gigantic nuisance ensues. Improvement will gradually take place, and the true interests of trade and of the community will be advanced and not injured if the joint committee steadily persists in its beneficent action; and the Chemical and Allied Trades might benefit themselves as well as the community by using their technical knowledge in saving our streams from the pollution which this report of experts says is "alleged."

The Brand of Pauperism.

For some time past the Chorlton board of guardians has been in correspondence with the Local Government Board on two matters of some interest and importance. The Education Act of 1876 provides for the free education of the children of persons in receipt of out-door relief. To prove their attendance the children are provided with attendance cards, to be marked by the schoolmasters and mistresses, and these certificates are given in the presence of their schoolmates. As the *Manchester Courier* states in a leading article, "the effect of this is that the children are punished for the misfortune of their parents by becoming known in school as the offspring of paupers." The Chorlton board thinks that "the attendance could be ascertained by the relieving officer from the school authorities, or where there is a school board from the board, equally as well as from the attendance card, which, in effect, points out each child using the same as a pauper child." Few will blame the guardians for wishing to save these children from the brand of pauperism, which would keep them down and taint their lives. The chairman, Dr. Rhodes, said the guardians ought to resent red-tapeism, and moved a resolution, which was carried unanimously, instructing their clerk to write again asking the Local Government Board at once to issue an order doing away with the cards. It appears that the Chesterfield guardians have also moved in the same direction.

Workhouse Dietary.

As regards the next matter in dispute, the position of the Chorlton board seems, as the *Manchester Guardian* has it, "eminently reasonable." Some time ago the various unions round Manchester—i.e., Manchester, Salford, Chorlton, and Prestwich—agreed on a common system of diet for the paupers in the workhouses. But the Chorlton guardians found there was great waste of bread at dinner, the rule being that each person shall have 5 oz.—neither more nor less. Many do not care for it, some take none, others just a little with their soup or hash or whatever the food of the day may be, and leave the rest—breaking it up and throwing it aside so that it may not be served up to them again. According to workhouse regulations this is waste material, of which there has been enough when made into "swill" to feed 300 pigs on the union farm. To remedy this the guardians, with the consent of the medical officer and the Local Government Board, began, about nine months ago, a series of experiments which are yet being continued, but seem likely to be stopped "by authority." Instead of being served in a lump, the bread has been cut in slices and put on plates, so that each can take what he wants, with the result that there has been a saving of 80 lb. of bread every day. It is needless to say that the pigs are fewer. With this great saving the general workhouse diet could be, and has been, improved, with a corresponding increase of satisfaction, especially among the aged inmates. The guardians wish to make the changes permanent, but the Local Government Board objects. The dietary of the Manchester unions was arranged on the sacred principle of uniformity, which must not be

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infringed, though, as one of the guardians stated, "there were truck loads of waste under the regulation dietary," which must go on because the other unions have not as yet adopted the heterodox plan of slicing the bread. It is odd, and seems one of those "ways that are dark," that while the slicing of the bread is allowed in the union schools it should be forbidden in a workhouse. The Board has declined, moreover, to receive a deputation from the guardians. The grave and placable chairman, Dr. Rhodes, was tempted, but refrained from calling the Local Government Board "an antediluvian fossil," as it had only existed sixty years; but he moved a resolution, which was carried unanimously, to the effect that the Chorlton board "did not consent to the regulation dietary," and said that if an amicable settlement were not arrived at they could go to Parliament.

Jan. 29th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Diseased Meat Case in Edinburgh.

IN the Sheriff's Court last week two butchers, one belonging to the city and another to the county, were charged with having had in their custody carcases of two cows unfit for human food, and which were carefully and skilfully dressed and intended to be disposed of for human food. The sanitary inspector stated that one of the carcases was much affected with tuberculosis, while the other was emaciated and dropsical. The Sheriff fined each of the accused £10.

Report on Edinburgh Milk Shops.

At the meeting of the Edinburgh Town Council last week a report by the medical officer of health upon the inspection of dairies and milk shops in the city for the year 1895 was submitted. Speaking generally, the report stated that the dairies were kept in a clean and sanitary condition, but that there were still milk shops of old standing which required improvement. These were being seen to by the inspector. Reference was made to the important questions as to what constitutes direct communication with dwelling houses, and as to what articles of domestic use might be stored in milk shops. These were still undecided, and as long as they were so it was held that inspection of milk shops must be regarded as imperfect.

Edinburgh Royal Dispensary.

The annual meeting of this institution was held last week, the Lord Provost presiding. The annual report showed that during the year 9505 poor persons had been treated by the officers of the institution, 2000 of them at their own homes. There had been 187 midwifery cases, and 250 cases were tabulated as influenza. The financial statement showed a balance of £60 at the credit of the dispensary.

Sir Douglas Maclagan and the Prison Commission.

It is understood that Sir Douglas Maclagan has resigned the office held by him under the Prison Commissioners for Scotland. Sir Douglas Maclagan succeeded the late Sir Robert Christison in the post of visiting physician to Perth General Prison in the year 1877, and since all the prisons in Scotland came under the charge of the Prison Commissioners he has acted as their medical adviser.

Entertainment to Edinburgh Nurses.

Last week the convener and members of the Public Health Committee of the Edinburgh town council gave an "at home" in the city chambers to the Nurses of the City Fever Hospital. They were also good enough to extend their invitation to the nurses of the Royal Infirmary, the Longmore Hospital for Incurables, the Royal Sick Children's Hospital, the Leith Hospital, and to the Jubilee Nurses. The company were received by the Lord Provost and the Convener of the Public Health Committee. The entertainment was most successful and much appreciated.

Lenzie Convalescent Home.

At the annual meeting of the subscribers on Jan. 21st it was intimated that the number of patients during the year had been 1691, and that the total ordinary expenditure for the year had been £2341 9*s.* 7*d.*, which gave a total cost per patient of £1 7*s.* 8½*d.*, the average stay per patient being sixteen days. The treasurer's report showed a deficit of £162.

Glasgow Eye Infirmary.

The seventy-second annual meeting of the contributors to the infirmary took place on the 23rd inst., Sir James King, Bart., being in the chair. The report shows an increase of 1400 patients during the past twelve months, the total number under the care of the medical officers being 18,636. Considerable attention has recently been paid to the improvement and extension of the pathological work and to the development of the museum. This department is in the hands of Dr. Leslie Buchanan. The value of the institution as a teaching centre is indicated by an increase in the number of students, the number last year being 104, including ten lady students from Queen Margaret College. The finances of the hospital are in a satisfactory state.

Hawkhead Asylum.

The extensive scheme of the Govan Lunacy Board, the total cost of which will be nearly £150,000, has now reached such a stage of advancement that the asylum proper was formally opened on the 23rd inst. The ceremony took place in the presence of a large audience containing many medical men and representatives from various public bodies. At the luncheon which followed the toast of "The Govan Lunacy Board" was proposed by Professor Gairdner. In an eloquent speech he discussed the change which has taken place in the management and treatment of lunatics, remarking that the barbarous mediæval idea that a lunatic was one possessed of a devil with its resulting horrors and cruelties had gradually been succeeded by the view, at once more humane and more scientific, that the insane were our brethren, in misfortune no doubt, but still our brethren. Dr. Gairdner congratulated the Govan Board upon their new buildings and upon the fact that they had shown themselves determined to be associated with the best intellects and efforts which were being devoted to still further promote the humane and successful treatment of the insane.

Paisley Infirmary.

It has been decided to proceed with the erection of a portion of the new building, which will provide accommodation for 108 patients, at a cost of £63,457.

Glasgow University.

The report of statistics, &c., for the session 1894–95 has just been issued. It contains a complete list of all the university officers, with their salaries and other particulars. In the medical faculty the salaries of the professors range between that paid to the professor of anatomy—viz., £1645—and that received by the professor of clinical surgery—viz., £320. It will interest many Glasgow graduates to learn that Lady Macleod has instituted a gold medal in memory of her husband, Sir George Macleod, to be awarded in the class of surgery. This will form a companion to the Gairdner medal which has been founded out of the balance of the fund raised a few years ago for the purpose of presenting Professor Gairdner with his portrait. The total number of students attending the University last session was 1944, including 211 women students.

Microbes and Plumbers' Work.

On Jan. 23rd a public meeting was held in the Waterloo Rooms, Glasgow, under the auspices of the movement for the national registration of plumbers. Bailie Crawford, chairman of the public health committee of the City of Glasgow, presided, and a lecture was delivered by Professor Glaister, M.D., on the subject of Microbes. The lecturer drew attention to the vital importance of the plumbing craft to public health, remarking that in these days the plumber is but the assistant of the physician in public health. The connexion of microbes with water cisterns, closets, and other sanitary apparatus was so close that if the plumber failed in his duty the whole fabric of public health in cities was placed in a perilous condition. But, thanks to the interest and public spiritedness of the Worshipful Company of Plumbers, and the hearty coöperation of the craft, the possibility of such danger was being daily lessened. Bailie Crawford remarked that from the point of view of the public authorities bacteriology was daily becoming more and more the guiding light to their operations, and it would be impossible for them to combat in the best manner the infectious diseases of the day, which had their origin in the various microbe organisms, without the intelligent and conscientious coöperation of the plumbers throughout the country. They now felt confident that with the education of apprentices, and with the registration of qualified journeymen, they might look forward to the future in this connexion with great confidence.

Jan. 24th.

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IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Queen's College, Belfast.

A ROYAL WARRANT has just been received making certain changes in the statutes of Queen's College, Belfast. New scholarships are to be founded in the medical faculty corresponding with the extension of the medical course to five years. Two scholarships will now be offered for competition in each of these five years instead of two for each of the four years as formerly. Other changes refer to the Law and Arts Faculties. The new regulations will come into operation on Oct. 1st, 1896. Lady students are now eligible to compete for scholarships and prizes.

Health Lectures at Queen's College, Belfast.

On Jan. 22nd Professor Thompson concluded the annual series of free lectures in connexion with the Dunville Chair of Physiology, his subject being "The Nature of some Common Chest Affections." At the close of the lecture a vote of thanks was passed to the Dunville family as well as to Professor Thompson, who is the Dunville Professor of Physiology.

The Belfast Hospital for Sick Children.

At the annual meeting of the supporters of this hospital, held on Jan. 24th, it was reported that during the past year there were 10,452 extern and 285 intern cases. A number of students are attending the hospital cliniques. The ordinary receipts last year were £1154 11*s.* 7*d.*, and the expenditure £1560; the cash balance in the bank at the end of the year was £332. Owing to the increasing work in the extern department two new officers—an assistant physician and an assistant surgeon—were appointed during the year.

Downpatrick Infirmary.

The report for the year ending Dec. 31st, 1895, shows that the total expenditure was £1476 15*s.* 7*d.* There were 492 cases admitted. The average number of beds daily occupied was 398, and the average cost of each patient was £2 13*s.* 8½*d.* The number of extern patients recommended for advice was 701. The treasurer has a balance of £22 1*s.* 2*d.* after payment of all accounts.

The Samaritan Hospital, Belfast.

At the annual meeting of this hospital, held on Jan. 27th, it was reported that during 1895 there were 559 extern patients and 142 intern, the majority of whom required surgical treatment. There were 108 operations performed, of which fifteen were abdominal. Only three deaths occurred in the hospital during the year. The amount received from subscriptions during 1895 was £128, and in contributions from intern patients £298. A new wing is urgently required for the reception of cancerous cases. Dr. St. Clair Boyd, one of the members of the staff, was re-elected surgeon to the hospital.

The Athlone Union.

This union has acquired a certain celebrity on account of the refusal of the board of guardians to accede to the request of the Local Government Board in reference to the appointment of a trained nurse in the place of an untrained one. The board was, as will be remembered, dismissed by sealed order and two paid commissioners were appointed in their stead. The post of clerk to the union became vacant recently, and after an election which caused much interest Mr. Joseph S. Vaughan, LL.D., son of the late clerk, was chosen from among twenty-two candidates.

The Richmond District Lunatic Asylum.

His Excellency the Lord Lieutenant has appointed Dr John Eustace, J.P., to be a governor of the above asylum. Dr. Eustace has long been recognised as an authority on lunacy in Ireland.

Death of Mr. William Robert Graves.

Mr. Graves, whose death took place on Jan. 24th, was well known in Dublin as an accomplished pathologist and physician. He was for many years a member of the staff of the City of Dublin Hospital, and a valued contributor to the Transactions of the Academy of Medicine in Ireland, of which society he was a Fellow. His death at the comparatively early age of forty-five years is much deplored.

The Direct Representative for Ireland.

Mr. S. W. Wilson, L.R.C.P.I., ex-librarian of the Royal College of Physicians of Ireland, has recently been appointed Registrar of the Branch Medical Council for Ireland in the room of Dr. R. L. Heard, resigned. He will carry out the arrangements for filling the vacant place on the General Medical Council for a direct representative from Ireland, and will announce the result of the election on March 2nd. The nomination of candidates will take place on Feb. 15th, and the voting, which will commence on Feb. 20th, will continue for seven days. Dr. William Thomson and Dr. Jacob divide the Dublin votes, but the three provincial candidates have promptly decided to adopt the course suggested by the profession in Cork with regard to taking a preliminary poll of the constituency for the purpose of deciding which of the three shall be selected as the provincial candidate. They have also asked their colleagues in Cork to take the necessary steps for sending out the voting papers and generally regulating and superintending the preliminary contest. Accordingly, a meeting was held in Cork on Jan. 25th, and it was unanimously decided that the request of the candidates should be acceded to. The readiness with which the three candidates waived all personal considerations cannot fail to have considerable influence in organising the provincial vote when the final contest comes to be fought out.

Jan. 28th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Population Statistics of France for the Year 1894.

THE above-mentioned statistics have just been issued by the *Office du Travail*. From this document I gather that during 1894 there were registered 286,662 marriages, 6419 divorces, 855,388 births, and 815,620 deaths. Compared with 1893 we find a diminution (for 1894) of 632 marriages, 19,284 births, and 51,906 deaths, whereas divorces have increased by 235. The salient point in these figures is—putting aside the feeble diminution (0·2 per cent.) in the marriages and the increase (3·9 per cent.) in the divorces—the backward movement (2·2 per cent.) in the births and a compensatory, but more marked, diminution (6 per cent.) in the deaths. The excess of births over deaths, which in 1893 was 7146, only attained in 1894, despite the fewer births and thanks to the fewer deaths, to 39,768. The following table shows at a glance the annual oscillations of the population since the year 1881:—

Years.	Marriages.	Divorces.	Births.	Deaths.
1881	282,079	—	937,057	828,828
1882	281,060	—	935,566	838,539
1883	284,519	—	937,944	841,141
1884	289,556	1657	937,758	858,784
1885	283,170	4277	924,558	836,897
1886	283,208	2950	912,838	880,222
1887	277,060	3636	899,333	842,797
1888	276,848	4708	882,639	837,867
1889	272,934	4786	880,579	794,933
1890	269,332	5457	838,059	876,505
1891	289,458	5752	866,377	876,882
1892	290,319	5772	855,847	875,888
1893	287,394	6184	874,672	867,526
1894	286,662	6419	855,388	815,620

We thus see that from 1881 to 1889 the births were more numerous than the deaths, the reverse being the case during the years 1890, 1891, and 1892. Since 1892 the births have reassumed their preponderance; but we perceive that whereas the births in 1894 were substantially fewer than during the three preceding years (only once, indeed, have the birth figures fallen so low—viz., in 1890), the increase in the population is really due to decreased mortality. Divorce, which was revived on July 27th, 1884, by M. Naquet, the late General Boulanger's henchman and a distinguished chemist, being strenuously opposed by the Roman Catholic Church, is least prevalent where the Church is strongest and *vice-versâ*. Hence, whereas in the Department of the Seine 51 per 100,000 inhabitants, or, in other words, 258 out of 100,000 households, were divorced, we find in the Lozère only

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136 per 100,000 households. Divorce is the most unpopular in Brittany, Berri, the Pyrénées, Savoy, and Auvergne. The general natality for the whole of France is low—viz., 22·5 per 1000 inhabitants, and 3 births per marriage, the extremes being, in the Gers 14·5 per 1000, and 32 6 per 1000 in Finistère. In the south of France illegitimate births are few in number, whilst in the north (principally in the Pas-de-Calais, the Somme, the Seine Inférieure, the Eure, Calvados, and especially in Paris) they are considerable and fairly constant. Thus, in 1894 there were 778,937 legitimate as against 76.451 illegitimate births, the corresponding figures for 1893 being 808;110 and 76,562. The general mortality for 1894 was 21 per 1000, the extremes being the Allier (15 per 1000) and the Bouches-du-Rhône (26·9 per 1000). Still-born children numbered 42,046 (24,543 males to 17,503 females)—a fairly constant figure since 1881. The fall in the birth-rate leaves thinking Frenchmen as anxious as ever for the national future, and fully justifies the prophecy that this great country will, say 100 years hence, be relegated to the position of a second- or third-rate Power.

Health of Paris.

The appended table shows the deaths from infectious diseases that occurred in Paris from 1890 to the end of 1895. The deaths of inhabitants of the suburbs situated outside the fortifications who succumbed in the Paris hospitals are not counted:—

—	Typhoid fever.	Small-pox.	Measles.	Scarlet fever.	Whooping-cough.	Diphtheria.
Total, 1895 ...	271	17	679	178	419	435
,, 1894 ...	697	166	993	151	255	1009
,, 1893 ...	570	280	677	177	508	1286
,, 1892 ...	691	42	909	158	334	1403
,, 1891 ...	476	39	983	202	332	1361
,, 1890 ...	656	76	1495	223	491	1668
Yearly average, 1880-89	1598	544	1188	236	433	1840

The very marked decrease in the death-rate from infectious diseases in general cannot fail to strike the reader. London itself cannot show such an improved record as regards typhoid fever. The diphtheria figures are also most reassuring, the death-rate having fallen from 1840 (average of ten years) to 435—less than a quarter. This speaks volumes for the efficacy of the new antitoxin treatment.

Parisian Medical Journals.

In the course of a single twelvemonth no fewer than 22 periodicals having reference to the science and art of medicine have been added to the already ample supply produced in Paris. In 1894 the number published was 177, but by the end of 1895 the portentous list had been lengthened to 199.

Protection as applied to the Practice of Medicine in France.

My remarks on the above subject in last week's issue of THE LANCET are corroborated by the appended resolutions passed by the medical section of the Students' Association of Paris. I quote from *La Presse Médicale*, and refrain from supplying a translation.

"Les étudiants en médecine, membres de l'Association générale des étudiants de Paris, réunis pour discuter les mesures à prendre à l'égard des étudiants étrangers, se sont arrêtés aux dispositions suivantes:

"1. Les étudiants étrangers, avant de prendre leur première inscription, devront présenter un certificat d'études supérieures obtenu après examen devant un jury composé de professeurs d'une Faculté française.

"2. Au moment de s'inscrire à la préfecture du département où ils ont l'intention d'exercer, les docteurs en médecine devront déposer:

"(*a*) Les pièces établissant leur qualité de Français;

"(*b*) Le diplôme français de docteur en médecine;

"(*c*) Tous les diplômes exigés des étudiants français au moment de la prise de leur première inscription.

"Aucune exception aux dispositions précédentes ne sera admise.

"Sur la question de l'entrée des étrangers dans les Facultés françaises, nous avons pensé que l'équivalence accordée dans les conditions actuelles était une garantie insuffisante d'études supérieures et que, d'autre part, il serait exagéré d'exiger des étrangers les diplômes demandés aux étudiants français.

"Sur la question de l'exercice de la médecine, nous estimons juste de soumettre les étrangers aux mêmes exigences que les docteurs français. Ils devront, au moment de s'établir, avoir obtenu la naturalisation qu'il est impossible de leur imposer au moment où ils commencent leurs études, étant données les conditions exigées par la loi du 28 juin 1889 sur la naturalisation (la naturalisation peut être accordée: (1) après trois ans de domicile autorisé; ..... (4) aux étrangers qui justifient qu'ils résident en France depuis dix années sans interruption).

"Nous avons réservé la question des concours qui relève uniquement de l'Assistance publique de Paris, des municipalités ou d'administrations diverses."

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Recent Discovery in Photography.

PROFESSOR ROENTGEN'S discovery continues to interest scientific circles and the general public in an extraordinary degree. Popular lectures and demonstrations on the subject are held here every evening in the overcrowded amphitheatre of the "Urania," a society for promoting a general knowledge of natural science, and all the tickets are already taken for the next meetings. Surgeons have begun to make practical use of the discovery. In one of your correspondent's cases, for instance, a finger which had sustained a compound fracture and from which a sequestrum had been removed was photographed by the new process, and the regeneration of the bone was thereby made visible. In another case the position of a piece of glass embedded in the tissues was ascertained by the same method. Similar reports come from other universities, as, for instance, from Berne, where Professor Kocher has photographed a needle in a woman's hand; it had made its way under the skin some time ago and had not been found by any other means. Professor Roentgen came to Berlin last week, at the invitation of the Emperor, in order to show his discovery, and he was expected to speak at a scientific meeting, but he left the city on the following day.

The Antitoxin Treatment of Diphtheria.

The Imperial Health Office has issued a statistical report on the use of diphtheria antitoxin in the hospitals from April to June, 1895; 2130 cases were reported, of which 1812 (= 85·1 per cent.) recovered and 306 (= 14·3 per cent.) died; 23 of the latter died within the first twelve hours; as they had come to the hospital in the final stage of the illness they are to be excluded from calculation, and the mortality is to be reckoned on the basis of 283 deaths (= 13·3 per cent.). In the first quarter of the year the numbers were 17·3 and 16·7 per cent. respectively; 710 cases are reported as being mild, and of these only 1 died; 293 cases are said to have been of moderate intensity and 1021 cases, of which 290 died, were severe. Of 106 patients with 13 deaths no particulars were given. As regards age, the report states that 41 patients were children under one year, of whom 17 died, giving a mortality of 41·5 per cent.; 218 were from one to two years of age, with 80 deaths (= 36·7 per cent.). The death-rate decreases as the age of the patients increases. Those of three years have a mortality of 17·1 per cent., those of seven years one of 8 2 per cent., and those of fifteen years one of 5·2 per cent. The injection of the serum was performed on the first two days of the illness in 752 patients, of whom only 48 died, giving a mortality of 6·4 per cent. This is a much smaller death-rate than in the first quarter of the year. The improvement is due, according to the report, to the greater strength of the preparation which is now in use (1000 units instead of 650). The injections performed on the third day were followed by a mortality of 10 per cent., those on the fourth day by a mortality of 17·3 per cent., those on the fifth day by a mortality of 23·5 per cent., those from the sixth to the tenth day by a mortality of 28·3 per cent., and those from the eleventh to the nineteenth day by a mortality of 17 6 per cent, 841 patients suffered from laryngeal diphtheria; 588 of them were operated on and 176 died (= a mortality of 29·9 per cent.). Some secondary effects of the antitoxin are reported, including skin eruptions, pains in the joints, and suppuration at the place of injection. The result of collective investigation in the hospitals during the second quarter of the year is, therefore, that antitoxin has an obviously favourable influence on the disease, whilst the accidental effects are of no importance.

Treatment of Prostatic Enlargement.

Castration for hypertrophy of the prostate has been recommended and successfully performed by Dr. White of Philadelphia, who found that this operation was followed by a diminution of the gland and a decrease of pain. Dr. White's method is less dangerous than the direct removal of the

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gland by suprapubic prostatectomy, but as the duration of the operation is rather long and as narcosis is necessary it is not without risk to elderly patients. Professor Helferich of Greifswald has now adopted an operation for the same purpose, which may be performed without an anæsthetic. He does not remove the testicles, but only makes a resection of both the vasa deferentia. An incision of 1½ centimetres (= 0·6 inch) in length is made in the scrotum and the spermatic cord. The vas deferens is then isolated, its lower end is torn away from the epididymis, whilst the upper end is cut through as high as possible, and the little wound is sutured and covered with collodion. The operation is finished in a few minutes and the patient is not confined to bed. In the majority of cases the difficulty of micturition disappeared after the operation and the patients felt relieved, even though the prostate gland did not actually decrease in size. Professor Helferich is of opinion that the success in these latter cases depends on nervous influence.

Foreign Students in German Universities.

During the last half-year 2287 foreign students attended the German Universities, being 8 per cent. of the total number of students. They were distributed as follows: 540 in Berlin, 388 in Munich, 301 in Leipzig, 189 in Heidelberg, 143 in Halle, 94 in Freiburg, 84 in Strassburg, 83 in Jena, 65 in Göttingen, 56 in Würzburg, 52 in Bonn, 46 in Königsberg, 46 in Marburg, 29 in Erlangen, 27 in Greifswald, 25 in Breslau, 21 in Tübingen, 10 in Kiel, 9 in Münster, 7 in Rostock, and 2 in Giessen; 1697 came from various European countries, and 590 from other countries, principally from the United States of America. In reality, however, the foreign students are much more numerous than the official register shows, because many of them attend the lectures and private courses without being regularly matriculated at a university. Many foreigners attend the post-graduate courses held at the great universities during the vacations, making only a short stay for this purpose, and they are, therefore, not entered on the records of the university registrars. Many foreign medical men take the diploma of M.D. in this country.

Jan. 27th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

International Congress for the Protection of Infancy.

THE last International Congress for the Protection of Infancy was held in August, 1895, at Bordeaux, and its proceedings were memorable for the revelations contributed by delegates of all the European Powers as to the frightful sacrifices of child-life, physically and morally, for which the closing decades of the nineteenth century are responsible. In no country is that sacrifice so great—so tragic, I might say—as in Italy, where the parental obligation has, from one cause or another, become so dead as to admit of the sale of children of tender years to itinerant "impresari," the parents well knowing to what a fate they are consigning their own flesh and blood. The traffic is worse than that of the slave-dealer. He buys or sells human beings of alien progeniture, whereas the Calabrian or Sicilian father and mother make merchandise of their own offspring. Again, as THE LANCET has shown, the protection of child-life in Italy against employment in factories for which it is neither physically nor morally adapted is shamefully inadequate, the law which prohibits such employment being so much more "honoured in the breach than in the observance" that, in the language of Signor de Andreis, "gli stessi giudici stupiscono quando alcuno ha la strana idea di invocarla" (the judges themselves are astonished when anyone has the strange idea of invoking it). The effects of this abuse of infancy are seen in many ways—in the conscription, for example, where, according to a Milanese writer, "45 per cent. of our youth cannot complete their military service for physical decrepitude and the maladies it invites." With special propriety, therefore, Italy will be the scene of the next International Congress for the Protection of Infancy, the place of meeting being Florence and the time October next. An organising committee, under the presidency of Baron Scander Levi, has already announced its programme, which includes "importanti materie riguardanti il miglioramento fisico, morale e intellettuale dei fanciulli ed i mezzi per raggiungerne i diversi scopi" (important matters relating to the amelioration, physical, moral, and intellectual, of children, and the means best adapted to obtain the ends in view). Hygiene, education, philanthropy in all its phases will be represented at the Congress, some of the most distinguished heads of sanitary institutions, children's hospitals, houses of correction, and infantile asylums having announced their intention of assisting, or, even thus early, having sent in their contributions. Great Britain, France, Germany, and Austria-Hungary will each have their delegates, while as to Italy I can already announce the names of such "Congressisti" as the Senator Giacomo Costa, President of the National Association for the Protection of Infancy; Dr. Pio Blasi, Secretary-General of the said association; and Dr. Bosco, Statistical Secretary in the Ministry of Agriculture and Commerce. The Congress will be the first of the kind ever held in the Italian kingdom, and vigorous as well as liberally inspired efforts are already on foot to make it the success which its all-important subject so deservedly merits. Further details as to membership, the order of business, and the facilities provided for the conveyance and lodgment of delegates and visitors I reserve for another opportunity.

Jan. 25th.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The Russian Conference on Syphilis.

THE special commission, which was appointed to organise the conference upon syphilis in Russia to be held next December, has already begun to hold its meetings, and for the present these will be continued twice monthly. The commission is under the presidency of Dr. Ragozin, Director of the Medical Department, and contains among its members Professor Petersen, Dr. Hertzenstein, Dr. Gratzianski, Dr. Tchistiakof, Dr. Vvedenski, and others. The Moscow Venerological Society has chosen for its representative Dr. Krakht; and Professor Ghé, of the University of Kazan, who is at present in St. Petersburg, is also taking part in the sittings. At present these are occupied mainly with the collection of historical records of syphilis in Russia, and a general consideration of measures taken in the past to control the disease.

The Library of the Medical Academy in St. Petersburg.

A new division of the library of the Army Medical Academy has just been opened. It is in some respects a new departure in medical libraries, for it will contain not only books on professional subjects, but also works of general literature, "*belles lettres* and the arts," provided their writers have at some time been connected with the Academy either as pupils or upon the teaching staff. For it is to such works alone that the newly opened division of the library is to be devoted. The general library of the Academy is already an extensive one containing 98,500 works in 136,500 volumes. The Russian medical journals and reports of medical societies taken by the Academy number 140, and more than 400 foreign periodical publications are also received.

An Undescribed Skin Affection.

Dr. K. G. Samson, writing to a recent number of the *Vratch* (1895, No. 48), described a form of skin affection which, though not of very rare occurrence in certain parts of Russia, is not mentioned in any text-books of dermatology. The malady in question appears, indeed, to have escaped description in medical literature generally. Dr. Samson has, however, met with several cases during the last two years, particularly in the autumn, occurring in the easterly government of Ufa, close to the Ural Mountains; and Dr. Sokolof, in a later communication to the same journal (No. 52), states that he has met with at least two or three instances of the disease every summer since the year 1881 in the governments upon the River Volga, and that his fellow practitioners in the country whom he has questioned upon the subject are quite familiar with it. The disease appears, in the form of one or more thin red lines, slightly raised above the surface, and looking like fine red threads. They occur usually on the face, but have been met with on the neck and forearm, but not on parts of the body usually protected by clothing. The thin red line grows sometimes 15 cm. in one day; at first it is straight, but later becomes bent on itself. It may disappear from the face and reappear on the mucous membrane of the mouth or nose or on the conjunctiva (this is denied by Dr. Sokolof). The only subjective

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symptom is intense itching. The cause of the complaint is found in a small parasite about 1 mm. long, consisting of ten segments; the mouth is surrounded by comparatively large hooklets, and is armed with what appears to be two suckers. Each segment is outlined by a fringe of small hooklets or projections. At the anal end are two large projections. By transmitted light two transversely striped tubes and other internal organs are seen. A fuller description of the parasite is promised later. In addition to the full-grown parasite, which, it should be stated, is not found in the thin red lines, but about ½ cm. from their ends in the still healthy skin, Dr. Sokolof has been able to find in every case at a distance of about two fingers' breadth from the end of the red line a number of small black nits or eggs. These are very firmly adherent to the fine hairs of the skin or to the eyebrows or eyelashes. The worm appears to escape from the bottom of the eggs, which are always found empty. It is suggested that the eggs are laid by some kind of fly, of which the worm is the larval form. The eggs have been found in patients seeking treatment for some other complaint and bearing no signs of the buried larvæ.

The Changes in the M.D. Degree.

The scheme of proposed changes in the Russian degree of Doctor of Medicine, already described in THE LANCET, has not yet become law. The Medical Council after reconsidering it have again returned it to the Medical Department of the Ministry of the Interior, and it will probably be submitted in the spring to the Imperial Council of Ministers.

Cholera in St. Petersburg.

With slight variations from week to week the cholera remains almost stationary in St. Petersburg. In the week ending Dec. 23rd (Jan. 4th) there were reported in the capital 28 cases of cholera and 19 deaths, in the following week 50 cases with 21 deaths, and in the week ending Jan. 5th (17th) 35 cases with 13 deaths. On the last-named date there remained 35 cholera patients under treatment. Between the 5th (17th) and 12th (24th) of January there were 16 fresh cases of cholera and 6 deaths. At noon on the 12th 18 cholera patients remained in hospital.

Jan. 15th (27th), 1896.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Cholera News.

DURING the last fortnight there have been thirty-two new cases with twenty-seven deaths in Lower Egypt, but during the last three days only one case has been discovered. Since Jan. 6th Alexandria has furnished nine cases and nine deaths, all among the poorest natives. One of the last cases was that of a beggar who lived chiefly on cannabis indica, and had no home and no means of subsistence, living on the charity of those who frequented hasheesh dens and the prostitutes' quarter. Cairo also has furnished one case, the importation of which is difficult to prove. The man was an ex-railway employé and was transferred, pending bacteriological research, to the infectious hospital at Abbassiyeh, where he died. The total number of cases has now reached 1148, and the total deaths are 955.

Cairo, Jan. 22nd.

Obituary.

JOHN STRAHAN, M.D. R.U.I.

IT is with sincere regret that we announce the death of one of the most able and promising Belfast physicians, Dr. John Strahan, which took place in that city on Jan. 23rd from pneumonia, a disease very prevalent in Belfast at present. Dr. Strahan, a member of a family distinguished for their scholastic attainments, was the son of a Belfast man, and was educated at the Royal Academical Institution and afterwards at Queen's College, where he had a very distinguished career. In 1872, he graduated M.D. with honours in the Queen's University. He then for a time was resident surgeon in the Belfast Union Infirmary and Fever Hospital, assistant surgeon to the Aughnacloy Fever Hospital, and afterwards surgeon on the "White Star" line of transatlantic steamers. He then settled down in Belfast, where for a time he held a dispensary appointment, which he subsequently resigned in order to devote himself to private practice. Dr. Strahan, who was just forty-four years of age at the time of his death, was a man of very great abilities and thorough knowledge of his profession, and extremely popular with his medical brethren and with his patients. He was a frequent contributor to medical literature. In 1886 he was awarded the Fothergill gold medal by the Medical Society of London for an essay on the Nature of Fevers Usually Termed in this Country Febricula; Simple, Combined, and Modified Typhoid. In 1889 the College of Physicians of Philadelphia gave him the Jenks Memorial Prize for a *brochure* on the Diagnosis and Treatment of Extra-uterine Pregnancy, and in 1892 he obtained the Warren Prize, Boston, for an Essay on Rickets. Dr. Strahan was a very popular lecturer, and his services were much sought by many of the societies in Belfast, where his addresses on medical subjects were greatly appreciated. Dr. Strahan was unmarried, and, as we have said, he was a member of a very able family; one of his brothers is Professor of English Law in Queen's College, Belfast, another (Dr. S. A. K. Strahan) is a distinguished alienist and barrister, while a third is a leading solicitor in the city of Belfast. Dr. Strahan's early death is much deplored by a very large circle of friends. The funeral took place on Jan. 25th.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Kuchin, Emeritus Professor of Histology and Embryology in the University of Warsaw.—Dr. Labric, Honorary Physician to the Hospitals of Paris.—Dr. Fienga, *privat-docent* in Physiology in Naples.

Medical News.

FOREIGN UNIVERSITY INTELLIGENCE.—*Amsterdam:* Dr. Straub has been promoted to the Ordinary Professorship of Ophthalmology.—*Bahia:* Dr. F. B. Pareira has been promoted to the Professorship of Clinical Medicine.—*Berlin:* Dr. Stadelmann, formerly of Dorpat, has been recognised as *privat-docent* in Internal Medicine.—*Berne:* Dr. Leon Ascher has been recognised as *privat-docent* in Physiology.—*Brussels:* Dr. Lavisé has been appointed Professor *agrégé* of Surgery and Dr. Houzé Professor *agrégé* of Anthropology.—*Königsberg:* Dr. Eiselsberg of Utrecht has been appointed to the chair of Clinical Surgery.—*Leipzig:* Dr. Jarisch of Vienna has been appointed Director of the new Dermatological Clinic.—*Rome:* Dr. Semo has been recognised as *privat-docent* in Medical Pathology.—*Rostock:* Dr. Körner has declined the invitation to Heidelberg as Extraordinary Professor of Ear and Throat Diseases.

FARNHAM AND AN INFECTIOUS HOSPITAL.—A proposal to establish an infectious isolation hospital to be used by authorities jointly in the neighbourhood of Farnham has been discussed for a long period, but the committee originally appointed have met with many difficulties, chiefly from the secession of one public body after another from the scheme which was propounded. A weighty report which was presented to the Farnham urban council recently, however, seems likely to revive interest. The death-rate, Mr. S. G. Sloman, jun., reported, had not been heavy for December, but there had been several cases of infectious disease, chiefly scarlet fever, and some of them had been removed to the workhouse isolation wards. One, however, was not able to be removed because there was not a single vacant bed, and he asked the council to consider the danger which would arise from, say, an epidemic of diphtheria if this be the normal condition. In addition to this Mr. Sloman condemned as "disgraceful" a cottage where two cases of fever occurred; it was, he said, impossible to isolate, and a husband, wife, and five children occupied a house unfit for human habitation. There is much opposition to a hospital for the Farnham district only, and on the assurance that the joint committee had the matter in hand the discussion was adjourned.

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AN INFECTIOUS HOSPITAL FOR THORNBURY AND DISTRICT.—On the recommendation of the medical officer of health for Gloucestershire the Thornbury guardians have decided to erect an isolation hospital to contain twenty beds. It was stated that the outbreak of small-pox in the workhouse a few years ago cost about £700.

LITERARY INTELLIGENCE. — Messrs. Oliphant, Anderson, and Ferrier will shortly issue a series of biographies at a popular price, dealing with great names connected with art, history, and literature in Scotland. In an early volume will be found a life of Sir James Y. Simpson, by Eve Blantyre Simpson. Thomas Carlyle and Hugh Miller will also find a place among the earlier issues.

INSTITUTE OF CHEMISTRY.—At the examination for admission to the membership of this institute, held from Jan. 7th to 10th, the following candidates were successful: G. H. Appleyard, Yorkshire College, Leeds; J. H. Coste, Finsbury Technical College; G. George, Merchant Venturers' Technical College, Bristol; F. Hudson-Cox, School of the Pharmaceutical Society and University College, London; P. C. H. Hunt, Mason College, Birmingham; and E. J. Parry, B.Sc.Lond., Guy's Hospital.

MEDICAL MAGISTRATES.—Dr. John Fletcher Horne and Mr. M. C. S. Halton, L.R.C.P.Irel., have been placed on the Commission of the Peace for the Borough of Barnsley.—Mr. Ernest Black, L.R.C.P., L.R.C.S.Edin., of Broome, West Australia, has been appointed resident magistrate for the district of Esperance, Western Australia, and Mr. Fred. M. House, L.R.C.P.Lond., M.R.C.S., of Katauning, West Australia, has been appointed resident magistrate for the West Kimberley District, Western Australia.

CITY OF BIRMINGHAM LUNATIC ASYLUMS: ANNUAL REPORT, 1895.—Mr. Whitcombe, in noting an exceptionally large admission of cases of melancholia and of actively suicidal patients, makes some important observations regarding certain social factors which undeniably influence the production of mental disease. He lays special stress on the evils associated with the present system of "cramming" in education, the forcing of brains, irrespectively of capacity, to attain certain levels. He also alludes to the domestic misery resulting from ill-assorted marriages and the mental stress in old age where, either from inability or improvidence, no provision has been made for this period. In twenty-seven males and twenty-four females intemperance is given as the exciting cause of insanity. The superintendent remarks that this is a most unusual number of females, and that he has never before noticed such a close approximation of the sexes under this head. In proportion the deaths were considerably more at Winson-green than Rubery-hill, but this only affords additional proof of the enhanced mortality appertaining to acute mental disease. Altogether this is an instructive and valuable report.

THE SOUTHAMPTON COUNCIL AND THE CORONER.—A complaint was made a week or two ago to the Southampton Council of the enforced removal by the coroner (Mr. Coxwell) of bodies on which an inquest was to be held to the public mortuary, and the town clerk wrote to the gentleman asking his authority for such a course. Mr. Coxwell said he did it "on the authority of the Public Health Act, custom, and common law." The town clerk replied that the only section of the Act named which referred to the matter was Section 143, and the latter part had been repealed by the Coroners' Act, 1877. The matter was then handed over to the secretary of the Coroners' Society, and the town clerk has submitted the following grounds of complaint: (1) That the corporation objects to the coroner ordering the removal of bodies from private dwelling-houses to the mortuary as a matter of convenience to coroner and juries, and denies the existence of his power to make or enforce such orders; (2) the public mortuary is provided *primâ facie* for the bodies of persons found dead and unclaimed; (3) that the Public Health Act, Section 142, only provides for the removal of a body on a justices' order where the dead has died of an infectious disease and the body is retained in a room in which persons live and sleep, or is in such a state as to endanger the inmates of the house; (4) with regard to post-mortem examinations, Section 13 of the same Act clearly provides that the place provided must be otherwise than at (*inter alia*) a mortuary; and (5) that the corporation has interfered as representing the ratepayers and inhabitants in consequence of complaints made to them upon the subject.

CHELMSFORD INFIRMARY AND DISPENSARY.—The annual meeting of the subscribers to the Chelmsford Infirmary and Dispensary was held on Jan. 22nd, the Mayor presiding. The report showed that 172 patients had been treated in the infirmary, and that 1638 had attended at the dispensary. Additional accommodation was required and plans for four extra wards were submitted. The honorary medical officers were each voted 25 guineas.

A NEW STREET-CLEANING MACHINE.—Mr. Jesson of Bristol has invented a new machine for street cleaning. The machine combines several services. It is designed to sweep the streets and at the same time to water and collect the refuse and to deposit, by its own action, the refuse in ordinary collecting carts. The machine is arranged so as to be easily attached to a low-built collecting cart, and when the cart is full it can be detached and placed at the back of another. The inventor undertakes to prevent the spreading of dust in the atmosphere.

SUNDERLAND BOROUGH ASYLUM: INTERIM REPORT, NOVEMBER, 1895.—This new asylum, when complete, will hold 500 inmates. At present accommodation is provided for 350 patients, and includes special wards for the sick, infirm, epileptic, and acute cases. Patients began to arrive on May 21st, 1895, and 307 have been under treatment. Some anxiety has been caused by water percolating into the basements, and giving rise to an insanitary condition of the subways. On the first reception of the patients this state of matters seems to have been attended by a mild outbreak of erysipelas; four cases occurred.

THE SMALL-POX EPIDEMIC AT GLOUCESTER.—At the last meeting of the Gloucester Board of Guardians a vote of thanks was recorded to the twenty-two members of the profession who had written to the guardians recommending *inter alia* that the Vaccination Acts should be enforced. It was resolved that the decision arrived at at the previous meeting, earnestly recommending the parents of unvaccinated children to obtain their immediate vaccination, be confirmed. Dr. Craddock, the medical superintendent of the County Lunatic Asylum, wrote to the guardians stating that no more patients would be received from the city in consequence of the outbreak of small-pox. Dr. Bibby, public vaccinator for Gloucester, vaccinated 200 persons during the past week.

MIDDLESBROUGH FEVER HOSPITAL.—At a recent meeting of the managing committee of the Middlesborough Fever Hospital Dr. Malcomson presented a report for the year 1895, showing that 738 patients had been admitted, 615 had been discharged, 38 had died, and 109 remained on Dec. 31st. The cases admitted were made up of 627 of scarlet fever, 105 of enteric fever, 2 of small-pox, 2 of influenza, 1 of diphtheria, and 1 doubtful. The average daily number of patients throughout the year was 73, but during the last six months it was much higher than that, and the work had been carried on under difficulties as the wards were intended to receive sixty-four beds only. During the subsequent discussion it was stated that convalescent children were put two in one bed, and that sometimes three infants occupied one large bed. It was decided that Dr. Malcomson should report as to what additions to the hospital were necessary. A motion for the appointment of a medical officer who should give his whole time to the hospital was negatived.

NEW INFECTIOUS HOSPITALS FOR LEEDS.—In 1892 the Leeds corporation acquired an estate of ninety-seven acres at Manston for the purpose of erecting thereon isolation hospitals for fevers and small-pox, and not long afterwards were forced, by an unexpected prevalence of small-pox, to provide accommodation on this site for cases of that disease. Before sanctioning the designs for the new permanent buildings the Local Government Board directed that there should be ample separation between the fever and small-pox departments and that the hospital should not be erected in a position which has more than 120 houses within a radius of half a mile. In the plans as now finally approved no building will be placed within 40 ft. of the boundary fence. One small-pox pavilion has been constructed, consisting of two wards, each with accommodation for fourteen patients, and measuring 91 ft. long, 25 ft. wide, and about 13 ft. high. Another similar pavilion for small-pox will be erected shortly, making a total of fifty-eight beds for that disease. Four pavilions of smaller size will be built for other infectious fevers, and a fifth for the isolation of doubtful cases.

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Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BARBER, GEO. W., L.R.C.P. Lond., M.R.C.S., has been appointed Health Officer at Kalpoorlie, Western Australia.

BLACK, ERNEST, L.R.C.P., L.R.C.S. Edin., has been appointed Resident Medical Officer for the Esperance District and Public Vaccinator for the Urban, Suburban, and Rural Districts of Esperance, Western Australia.

BRIGGS, HENRY, M.B., C.M. Edin., F.R.C.S. Eng., has been reappointed Honorary Surgeon to the Liverpool Hospital for Women.

BURTON, J. E., L.R.C.P. Lond., M.R.C.S., L.F.P.S. Glasg., has been reappointed Honorary Surgeon to the Liverpool Hospital for Women.

CAMERON, A. G. R., M.B., B.S., M.R.C.S., L.R.C.P., D.P.H. Camb., has been appointed Assistant Medical Officer to the Small-pox Hospital Ships, Metropolitan Asylums Board.

CAREY, CHAS., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer, Bromsgrove Cottage Hospital.

CAROLAN, JAS. F., M.R.C.S. Eng., has been appointed a Public Vaccinator for the Districts of Kawa Kawa and Bay of Islands, New Zealand.

COWEN, ALFRED, M.B. Melb., B.S., has been appointed a Public Vaccinator at Steiplitz, Victoria, Australia.

CRAWFURD, RAYMOND H. P., M.A., M.D. Oxon., M.R.C.P., has been appointed Assistant Physician to the Royal Free Hospital, Gray's-inn-road.

DAVIES, E. T., M.D. Edin., C.M., F.R.C.S., L.R.C.P. Lond., has been reappointed Honorary Assistant Medical Officer to the Liverpool Hospital for Women.

DODGSON, R. W., M.R.C.S., L.R.C.P., has been appointed House Physician to St. Mary's Hospital.

EDIS, J. B., L.R.C.P., Edin., M.R.C.S., has been reappointed Honorary Surgeon to the Liverpool Hospital for Women.

EMBLEY, E. H., M.B., Ch.M. Melb., has been reappointed Anæsthetist to the Melbourne Hospital, Victoria, Australia.

FISHER, F. C., F.R.C.S. Eng., has been reappointed Medical Officer for the King's Langley Sanitary District of the Hemel Hempstead Union.

FRASER, P., M.D., C.M. Edin., has been appointed Medical Officer of Health for the North Wales United Sanitary District.

GRIMSDALE, T. B., M.B. Cantab., M.R.C.S., has been reappointed Honorary Medical Officer to the Liverpool Hospital for Women.

HEAVEN, J. C., L.R.C.P. Lond., M.R.C.S., D.P.H., has been appointed Medical Officer of Health by the Warmley Rural District Council.

HOWARD, F. R., L.D.S.R.C.S. Eng., has been reappointed Honorary Assistant Dental Surgeon, Birmingham Dental Hospital.

HOUSE, F. M., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer for the West Kimberley District, Public Vaccinator for the Urban and Suburban Districts of Derby, and the Rural District of West Kimberley, Western Australia.

KIRKLAND, HUGH, M.B., Ch.M. Glasg., has been appointed Honorary Surgeon-Lieutenant on the Medical Staff Corps, New South Wales Volunteer Forces.

LARKHAM, E. T., L.R.C.P., Lond., M.R.C.S., D.P.H., has been appointed Medical Officer for the Munslow Sanitary District of the Ludlow Union.

MADIN, W. T., L.D.S.R.C.S. Eng., has been reappointed Honorary Assistant Dental Surgeon, Birmingham Dental Hospital.

MAITLAND, H. L., M.B., Ch.M. Syd., has been appointed Honorary Assistant Surgeon to the Sydney Hospital, New South Wales.

MESSITER, A. F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Isle of Axholme Rural Sanitary District.

MILLER, W. R., M.D., B.Ch. Dubl., has been appointed Honorary Surgeon, West Cornwall Infirmary and Dispensary, Penzance, vice A. W. F. Steer.

MOUNTFORD, JAS., L.D.S.R.C.S. Eng., has been reappointed Honorary Assistant Dental Surgeon, Birmingham Dental Hospital.

NUNN, P. W. G., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health by the Pokesdown Urban District Council.

PARROTT, J. E., L.D.S.R.C.S. Eng., has been reappointed Honorary Assistant Dental Surgeon, Birmingham Dental Hospital.

PRIDMORE, B. L. N., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Officer for the Weymouth Sanitary District of the Weymouth Union.

READING, P. B., L.D.S.R.C.S., F.P.S. Glasg., has been appointed Honorary Assistant Operating Dentist to the Sydney Hospital, New South Wales.

SANDERS, R. C., L.R.C.S. Irel., has been appointed a Public Vaccinator at Milawa, Victoria, Australia.

SMART, DAVID, M.B., C.M., B.Sc. Edin., has been reappointed Honorary Medical Officer to the Liverpool Hospital for Women.

WICKHAM, C. A., L.R.C.P. L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Fourth Sanitary District of the East Ashford Union.

WILLIAMS, D. E., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Resident Medical Officer for the Wellington District, Public Vaccinator for the Urban and Suburban Districts of Bunbury and the Rural District of Wellington, and Quarantine Officer at Bunbury, Western Australia.

WILL, A. M., M.B., C.M. Aberd., has been appointed Honorary Assistant Physician to the Sydney Hospital, New South Wales.

WRIGHT, FRANCIS G., L.R.C.P., L.R.C.S. Edin., has been appointed Resident Medical Officer for the Gascoyne District, Public Vaccinator for the Urban and Suburban Districts of Carnarvon and the Rural District of Gascoyne, and Quarantine Officer at Carnarvon, Western Australia.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM AND MIDLAND EYE HOSPITAL, Birmingham.—Assistant House Surgeon. Salary £50 per annum, with apartments and board.

BURY DISPENSARY HOSPITAL.—Junior House Surgeon. Salary £60 per annum, with board, residence, and attendance. Applications to the Hon. Secretary, Dispensary, Knowsley-street, Bury, Lancashire.

BURY UNION, County of Lancaster.—District Medical Officer and Public Vaccinator for the Whitefield District. Salary as Medical Officer £40 per annum, and certain fees for Surgery, Midwifery, and Vaccination cases. Applications to the Union Clerk, Union Offices, Bury.

CARDIFF UNION.—Assistant Medical Officer for the Workhouse, for one year. Salary £.00 per annum, with rations, apartments, attendance, and washing. Applications to the Clerk, Queen's Chambers, Cardiff.

DENTAL HOSPITAL OF LONDON, Leicester-square.—Assistant Dental Surgeon.

DUNDEE ROYAL INFIRMARY.—Resident Clinical Assistant. Board, lodging, and washing provided.

ESSEX COUNTY ASYLUM, Brentwood.—Third Assistant Medical Officer and Pathologist. Salary £120, with board, residence, and washing.

GENERAL INFIRMARY AND DISPENSARY, Doncaster.—In-door Dispenser and Assistant to House Surgeon. Board, lodging, and washing provided.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House Surgeon. Board and lodging provided.

LIVERPOOL ROYAL INFIRMARY.—Assistant Honorary Physician.

LONDON HOSPITAL, Whitechapel, E.—Two Surgeon Dentists.

OLDHAM INFIRMARY.—Junior House Surgeon. Salary £50 per annum, with board and residence.

OWENS COLLEGE, Manchester.—Junior Demonstrator in Physiology and Histology. Salary £100 per annum.

QUEEN'S JUBILEE HOSPITAL, Earl's-court, Kensington, S.W.—House Surgeon for six months. Salary at the rate of £100 per annum, and rooms adjoining the Hospital.

SEAMEN'S HOSPITAL SOCIETY.—Honorary Visiting Surgeon for the Branch Hospital, Royal Victoria and Albert Docks. Applications to the Secretary, Greenwich.

STAINES UNION.—Medical Officer for No. 8 Medical District. Salary £20 per annum with the usual fees for surgical and midwifery cases. Applications to the Clerk to the Guardians, Staines.

THE GUARDIANS OF THE POOR, CHELSEA.—Assistant Medical Officer (Male or Female) for the Workhouse and Infirmary. Salary £70 per annum, with furnished apartments, rations, washing, coals and gas, and £3 10s. a year in lieu of beer. Applications to Clerk to the Guardians, 260, King's-road, Chelsea.

UNIVERSITY OF GLASGOW.—Four Examiners for Degrees in Medicine, to examine in Anatomy, Midwifery, Medical Jurisprudence, and Botany respectively. Salary for the Examinership in Anatomy is £40 per annum, and for the others £30 per annum.

WALSINGHAM UNION.—Medical Officer for the No. 6 Wells District of the Union. Salary £68 10s. per annum, exclusive of certain fees. Applications to the Clerk, Bridge-street, Fakenham.

Births, Marriages, and Deaths.

BIRTHS.

CUNYNGHAM-BROWN.—On Jan. 13th, at Eldon House, Holmfirth, Yorks the wife of Robert Cunyngham-Brown, M.B., B.S. Durh., of a son.

DAVIS.—On Jan. 22nd, at Sunnydene, Sidcup, the wife of G. W. Davis, M.D. Durh., of a son.

LOWNDS.—On Jan. 23rd, at Balham High-road, S.W., the wife of Chas. J. Lownds, B.A. Cantab., L.R.C.P., and D.P.H. Edin., of a son.

SMITH.—On Jan. 23rd, at Camden-square, N.W., the wife of J. Burnet Smith, M.B. Edin., of a son.

MARRIAGE.

FOWLER—PERKS.—On Jan. 28th, at the Church of St. Modwin's Burton-on-Trent, by the Rev. F. H. Beaven, Vicar of St. Paul's, assisted by the Rev. Vicars A. Boyle, Vicar of Burton, Edward George Bennett Fowler, eldest son of John Bennett Fowler, of Heathfield, Stoneygate, Leicester, to Florence Mary, elder daughter of Charles Perks, M.R.C.S. Eng., L.R.C.P. Lond., of Burton-on-Trent.

DEATHS.

ILLINGWORTH.—On Jan. 25th, from blood-poisoning, Charles Rumney Illingworth, M.D., D.P.H., of 69, Ritherdon-road, Upper Tooting, London. Aged 41 years. No cards.

JACKSON.—On Jan. 21st, at 17, Allan-park, Stirling, Surgeon-Lieut.-Colonel Thomas Wilson Jackson, M.B. Glasg., B.Sc. (Pub. Health) Edin., in his 51st year.

KELLY.—On Jan. 28th, at Park-street, Grosvenor-square, A. B. Kelly, M.R.C.S. Eng., L.R.C.P. Edin., aged 43.

MARTIN.—On Jan. 28th, at the Croft, London-road, Reading, Robert Spencer Martin, L.R.C.P. Edin., M.R.C.S. Eng., aged 81.

ORME.—On Jan. 25th, suddenly, at his residence, The Firs, Leigh, Essex, Robert Orme, M.R.C.S., aged 56 years.

WEEKES.—On Jan 27th, at Mansion House, Brompton, Chatham, Henry Weekes, M.R.C.S., L.R.C.P., J.P. for Kent, aged 51 years.

WILSON.—On Dec. 22nd, at Broughville, Cheltenham, Edward Wilson, L.R.C.P. Lond., M.R.C.S. Eng., in his 39th year.

WHITE.—On Jan. 19th, whilst on a visit to Dinard, Brittany, Francis S. White, M.R.C.S., L.S.A., after five days' illness from paralysis, aged 39. Ceylon and Colonial papers please copy.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—SOCIETY OF ARTS.—8 P.M. Dr. J. A. Fleming: Alternate Current Transformers. (Cantor Lecture.)

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Watson Cheyne: The Objects and Limits of Operations for Cancer. (Lettsomian Lecture.)

TUESDAY.—PATHOLOGICAL SOCIETY OF LONDON.—Papers:—Mr. Symonds: Carcinomatous Cysts of the Breast.—Dr. Spreat: Carcinomatous Cyst of the Breast.—Mr. Davies-Colley: Bladder after Castration for Enlarged Prostate.—Dr. Rolleston: Chronic Dilatation of Colon in a Child.—Mr. Lockwood: Pedunculated Cysts in Hernial Sac. Card Specimens by Mr. Rutherford Morrison, Mr. Lockwood, and Dr. R. T. Hewlett.

SOCIETY OF ARTS.—8 P.M. Mr. F. Inigo Thomas: The Garden in Relation to the House.

WEDNESDAY.—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens by Dr. Playfair, Dr. Duncan, and others. Paper:—Mr. Harrison Cripps: Abdominal Hysterectomy with Intra-peritoneal Treatment of the Stump, with Notes of Eight cases. Annual Meeting. The President (Dr. Champneys) will deliver the Annual Address.

SOCIETY OF ARTS.—8 P.M. Mr. Frederick Henry Cheesewright: The Mexican Drainage Canal.

THURSDAY.—HARVEIAN SOCIETY.—8.30 P.M. Mr. C. Mansell Moullin: Some of the Recent Results of Orchotomy for Enlarged Prostate.

FRIDAY.—WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich-road, S.E.).—8.15 P.M. Mr. Poland will exhibit a case of Thyroidal Tumour after Operation. Discussion on Cough—Mr. Mayo Collier, Drs. Herschell, Tayler, Henry, and others.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Hale White: Two cases of Pneumothorax in the course of Typhoid Fever, and both due to straining at stool.—Mr. Pitts and Mr. Ballance: On Splenectomy for Rupture, with three successful cases.—Mr. Golding Bird: A case of Lymph Scrotum and Lymphatic Varix.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, W.).—8.30 P.M. Mr. J. Hutchinson: The Laws of Inheritance with reference to Gout.—Dr. Archibald Garrod: The *Rationale* of the accepted Treatment of Gout. Specimens of Renal Calculi will be shown by Messrs. Keetley, Edwards, Bidwell, and others.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY.—LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 1 P.M., Mr. W. Lang: Clinical Examination of the Eye.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Mr. W. R. H. Stewart: Examination of the Ear.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

TUESDAY.—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Mania—Acute Hysterical, Acute Delirious.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

WEDNESDAY.—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. Quarry Silcock: Choroidal Diseases, with Ophthalmoscopic Demonstrations.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: The Varieties of Eczema.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Mitchell Bruce: Pleurisy.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Syphilis.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. Percy Dunn: Ophthalmic Cases.

THURSDAY.—ROYAL INSTITUTION.—3 P.M. Mr. P. H. Wicksteed: Dante.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., 5.30 P.M., Mr. John Hopkins: Clinical Lecture.—Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M. Dr. Allan Macfadyen and Mr. A. G. Foulerton: More Important Constituents of Normal Urine.

FRIDAY.—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M. Prof. Crookshank: The Microscope and Methods of Cultivation.

ROYAL INSTITUTION.—9 P.M. Hon. John Collier: Portrait Painting in its Historical Aspects.

SATURDAY.—ROYAL INSTITUTION.—3 P.M. Prof. C. Hubert H. Parry: Realism and Idealism in Musical Art (with Musical Illustrations).

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Lichen Planus.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 30th, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rain-fall.	Remarks at 8.30 A.M.
Jan. 24	30·16	S.W.	43	41	72	49	36	...	Cloudy
,, 25	29·93	S.W.	49	48	55	52	42	0·12	Raining
,, 26	30·03	N.	49	48	54	49	48	0·20	Overcast
,, 27	30·35	S.	45	44	54	50	43	...	Overcast
,, 28	30·35	N.	46	45	72	49	45	0·12	Overcast
,, 29	30·78	S.W.	38	36	54	47	34	...	Foggy
,, 30	30·88	W.	36	35	45	37	35	...	Foggy

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

A HORRIBLE TRADE.

To the Editors of THE LANCET.

SIRS,—I do not know whether the medical profession in this country is cognisant of the steady but continual growth of an evil which the law does not notice, and about which the average well educated man of the world can have little idea. I allude to the means by which pregnancy can be prevented *ab initio*, which has happily not yet been introduced into an overloaded medical curriculum, and which is as distasteful a subject to the medical practitioner as it would be to the most fastidious divine. But unless we choose to wait until M. Zola takes the matter in hand, and forces the slow machinery of the law to take action, it might be useful if one of the great medical corporations or the General Medical Council could collect enough evidence to prove that this abomination has lately forced itself into notice in a manner which can no longer be ignored by clean people. In common with most medical men I have had some hazy notion that in some of the streets not so far from the Law Courts as prudence should suggest to their owners there has been for many years an illicit traffic in various preventatives of pregnancy. Now and again such information is cunningly worked up into an advertisement, and meets the eye amongst such innocent company as the last fashion in sanitary undergarments and the latest fad in tinned beef. But I had yet to learn that the druggist's shop was the centre from which such drugs and instruments were now distributed, accompanied with the fullest directions in plain matter-of-fact language. No greater proof of the extent and importance of this trade can be cited than the statement of the fact that catalogues of the various articles are issued, numbered in regular order; that the drugs are put up in little boxes and large—a reduction on the larger size; that travellers go about the country showing their samples, and that catalogues are distributed by post to probably every address in the trade directory; and that there is also a pamphlet for home reading, written as a dialogue between two men—the one prosperous and happy, and the other poor and needy in everything except a large family.

We shall perhaps be told that respectable druggists resolutely refuse to have any dealings in this filthy trade. Happily, this is true in

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hundreds of instances. But the wary dealer is not easily pushed aside; unable to negotiate with the master he traffics with the servant. The assistant may become his agent, and can, I am assured, easily augment his salary by this lucrative trade, in which there is little tendency to haggle over the price. On every side there is a disposition to secrecy, and the druggist never learns that his establishment has become an emporium to distribute these nefarious wares.

You, Sirs, may easily plead that this subject is not one a decent man would care to handle with a pair of tongs; but I trust you will agree with me in the hope that whatever are to be the changes in the modes and manners of the medical profession, it must never identify itself in this matter, however indirectly; and that once and for ever, if this evil is to continue, at all events it shall never exist as a sidewing of the healing art. And I feel sure that the majority of your readers will gladly assist in evoking the aid of the law to prevent the further spread of this horrible trade. I am, Sirs, your obedient servant,

G. H. W.

A Rupture Curer.—The address does not correspond with any in the Medical Register, though the practitioner in question appears in the Medical Directory under the address given. Our correspondent is thanked. It is lamentable that a university should be without penal powers in such a case.

Res. Med. Off.—It is compulsory to make a post-mortem and give evidence under the coroner's order. No fee can be claimed if deceased expires within the hospital.

Dr. W. K. is thanked for his communication.

REMUNERATION FOR AMBULANCE LECTURES.

To the Editors of THE LANCET.

SIRS,—I should feel much obliged if any readers of THE LANCET can quote me an instance where a county council or other public body has made a grant to a lecturer on "first aid" or "ambulance" work. The expenses of such a class are often partly met by a grant from a county council, but I am not aware of any instance where a lecturer under the auspices of the St. John Ambulance Association has received any remuneration for his time and trouble from the public funds. When one considers the amount of money spent on other and less important subjects, I think lecturers on this subject should at least have some return for their labours. Before delivering one course of lectures I applied to the county council for a fee for lecturing. An arrangement was made between the secretary for the local centre of the St. John Ambulance Association and the secretary to the county council for a grant; but this grant, amounting to about £4, was more than swallowed up in expenses. Rather than deprive so good a cause as the Association of its necessary funds I allowed the matter to drop. I must add that members of my classes have always shown their appreciation of my labours by making me a presentation, but many lecturers, like myself, would rather see a business-like arrangement—say a nominal fee for each course of lectures, than that subscriptions should be asked from those who can ill afford to give them. Any suggestions on this point will be thankfully received by Yours faithfully,

Jan. 28th, 1896. DEMULCENT.

Mr. T. Plymes.—We have no leaflets or pamphlets in this office dealing with the topic. There is clearly much to be said on each side; but the idiosyncracy of the smoker counts for everything, and general statements will always be as wrong as tney are right for the general public.

Scirrhus.—No reliable information has reached us on the subject.

THE EFFECTS OF MARRYING "IN-AND-IN."

To the Editors of THE LANCET.

SIRS,—While walking the hospitals in 1874-75, a little after the Franco-Prussian War, I came across a book in the British Museum on "Ethnology," written about forty or fifty years before the aforesaid time. In it the writer said (1) that the French people, swelled with pride, would not intermarry with the surrounding nations, and that the Prussians were freely allying themselves in marriage with the various nationalities that surrounded them, and that should the French and Prussians engage in hostilities the latter (the Prussians) would be victorious; (2) that the Boers, or Dutch farmers, of South Africa were then freely intermarrying with the Zulus, and that if they came in contact with the British, who were marrying "in-and-in," the former (the Boers) would get the best of it; (3) that the mixed races of America (the Euro-African) would in 100 years' time be the rulers of America; and (4) that the Euro-Asians of India would be the future Prime Ministers of Europe and America, &c. Can you or any of your readers tell me the names of the work and its writer, as I have entirely forgotten them? I am, Sirs, yours faithfully,

Jan. 27th, 1896. M.B.

WANTED, AN ANGLO-FRENCH DICTIONARY OF SCIENTIFIC TERMS.

To the Editors of THE LANCET.

SIRS,—Some time ago one of your correspondents wrote asking if any French dictionary of scientific terms existed in this country. So far I have seen no answer, and I wish to repeat the question, as I am in want of a dictionary of such a nature, especially one which translates geological terms. I shall be much obliged if any of your correspondents can give me any help. I am, Sirs, yours faithfully,

Temple Sowerby, Penrith, Jan. 21st, 1896. LOUIS E. STEVENSON.

THE POSITION OF NURSES.

To the Editors of THE LANCET.

SIRS,—In a leading article on "Nurses and their Training" in THE LANCET of Jan. 11th certain nurses are spoken of in the following words: "..... who tread on everybody's corns, from the youngest servant up to her mistress; who seem to think that nursing means the exaction of as much attention to themselves as the patient requires, the appropriation of the patient and the bedroom, and the exclusion from it of those whose affection and solicitude it is her duty to consider, and, finally, who assume airs and authority of a medical character. Medical practitioners are often hindered and annoyed by such qualities in nurses." Lower down in the article you go on to remark: "We readily recognise that such unfit and unfortunate nurses are the exception." Now, my experience is that they are the rule and not the exception. We want in a nurse, as you truly say, "not an equal, but a subordinate—one to accept his [the medical man's] diagnosis, and to carry out his instructions, and one who, as Sir Dyce Duckworth has said, should, above all, have perfect command of the tongue, and be able to check any tendency to recount all the wonderful cases she has seen." "Perfect command of the tongue" is just the one faculty in her mental organisation she does not possess. Hence she boasts, "I nursed Mrs. or Lady So-and-so's child in a dreadful case of scarlet fever, and *pulled it through!*" She occupy a subordinate position, Sirs, with her registration diploma—for she will get it—her uniform, and her admirers? How can you expect it? She must be honoured—or look out for squalls. The medical attendant's character and position in any given case are not safe, for her tongue is often filled with scandal and lies. I send you an extract from a popular novel, written by a woman who seems to be well up in the present position and bearing of our nurses. The novel is "Marcella," by Mrs. Humphrey Ward. I will only add that in my opinion in the unimaginary narrative the medical man in attendance was neither intoxicated, nor had he endangered the life of the patient; but the author's purpose is gained—it magnifies the nurse. Here, briefly, is the narrative. "He [the medical man] moved towards the bed and she [the nurse] with him. The woman moaned as he approached her. He set about his business with hands that shook. Marcella decided at once that he was not sober, and watched his proceedings with increasing disgust and amazement. Presently she could bear it no longer. 'I think,' she said, touching his arm, 'that you had better leave it to me and go away.' He drew himself up with a start, which sent the things he held flying, and faced her fiercely. 'What do you mean?' he said. 'Don't you know your place?' The girl was very white, but her eyes were scornfully steady. 'Yes, I know my place.' Then, with a composure as fearless as it was scathing, she said what she had to say. She knew, and he could not deny, that he had endangered his patient's life. She pointed out that he was in a fair way to endanger it again. Every word she said lay absolutely within her sphere as a nurse. His cloudy brow cleared under the stress of it. ..... 'You understand,' he said thickly, turning upon her with his hat in his hand, 'I shall not attend this case again until your association can send me a nurse that will do as she is told without insolence to the doctor. I shall now write a note to your superintendent.' 'As you please,' said Marcella quietly, and she went to the door and opened it." Comment is needless. The medical man was certainly not intoxicated; the nurse was certainly impertinent and did not know her place, and a good nurse is still a *rara avis*. I remain, Sirs, yours obediently,

Cornwall, Jan. 20th, 1896. LOOKER-ON.

WE have received an interesting paper entitled "Accidental Rashes with Typhoid and Typhus Fevers simulating the Rash of Scarlet Fever," to which the author has forgotten to attach his name. Will he kindly communicate with us?

Tartarin.—Coroners are amenable to the Lord Chief Justice, who is Chief Coroner of England, but in any case of complaint against a coroner the Chief Justice must be approached judicially on proper evidence and through the ordinary channel of his court.

A Local Practitioner.—The conversation reported to us shows little but the narrowness of the chief talker. It is not worth notice.

Sceptic.—We have made inquiries in more than one direction, but at present can give our correspondent no information.

Dr. Arthur MacDonald's communication deals with a subject which hardly falls within the scope of THE LANCET.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received:—*Torquay Directory, Forfar Herald, Dewsbury Reporter, North Star, Brighton Gazette, Scotsman, Banffshire Herald, Portsmouth Times, Newcastle Journal, Bradford Observer, Western Daily News, Sheffield Telegraph, Cork Daily Telegraph, Hastings News, Midland Free Press, Manchester Evening Mail, Herne Bay Argus, Wolverhampton Chronicle, Bury Guardian, South Wales Times, Shrewsbury Chronicle, General Advertiser (Dundee), Australasian Medical Gazette, Hinckley Times, Rochester Journal, Southampton Times, Cornish Telegraph, Huddersfield Chronicle (Bridgend), Sunderland Herald, Bristol Times and Mirror, Clacton Gazette, Le Chasseur Français, Cheltenham Examiner, Gloucestershire Echo, Walton Gazette, Elgin Courant, Lincolnshire Chronicle, South Wales Daily News, Chronicle, &c., &c.*

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A Clinical Lecture

ON

THREE CASES OF FRACTURE-DISLOCATION OF THE SPINE WITH TOTAL TRANSVERSE LESION OF THE SPINAL CORD.

Delivered at St. Mary's Hospital on Dec. 7th, 1895,

BY HERBERT W. PAGE, M.C. CANTAB., F.R.C.S ENG.,

SURGEON TO THE HOSPITAL, AND MEMBER OF THE COURT OF EXAMINERS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

GENTLEMEN,—One of the first cases to arrest my attention in the wards when I came back to work in October was that of a young man who had been admitted four weeks previously with paraplegia from fracture-dislocation of the dorsal spine. When very intoxicated he had fallen out of a window and had been picked up unconscious and brought to the hospital. He was then in a state of profound collapse and he remained so for at least twenty-four hours. There was complete paralysis of the lower limbs and of the bowel and bladder, and anæsthesia reached to the level of a line corresponding with the circumferential distribution of the ninth dorsal nerve. There was very decided swelling of the soft parts over the dorsal spine from the third to the eighth vertebra, and Mr. Wright detected distinct crepitus as from a detached spinous process. There had been no question as to the nature of the injury, and I learned that operative interference had not been entertained. The reflexes, both superficial and deep in the paralysed area, had been entirely absent from the moment of his admission until the time I saw him. One of the first questions, indeed, which I asked about him had reference to the condition of the reflexes, and Mr. Wright assured me that there had not been even the suspicion of a return of any one of them throughout the whole time. I came, therefore, to the conclusion, which had all along been held, that the man had sustained a total transverse lesion of his cord, and that no good was likely to follow the operation of laminectomy; but when I came to examine his spine I found a condition of things which modified my judgment. It was obvious that there was some deformity at the level of the sixth, seventh, and eighth dorsal vertebræ, and one could distinctly feel that there was lateral deflection of one or more spinous processes at this part, and that immediately above it the spinal column seemed to be bent abruptly forwards. The existence of so much deformity led me to ask myself this question — "Is it possible that although everything in the history and symptoms points to total transverse lesion of the cord there may nevertheless be sufficient pressure on the cord from displacement of bone to account for the symptoms and for that cardinal indication of total transverse lesion, persistent disappearance of the reflexes? My answer to the question I had put to myself was this, that although the prospect of advantage from laminectomy was in the circumstances poor, yet inasmuch as there was a deformity which could certainly be removed it was the right thing to undertake an operation, which in itself was comparatively free from risk, in the hope of doing some good in an otherwise hopeless case. Before resorting to it, however, I deemed it well to put the facts of the case before my friend, Mr. Thorburn of Manchester, every line of whose writings on spinal injuries I advise you to read, mark, and learn. I cannot do better than give you his opinion *in extenso*, because it exactly and happily conveys my own. "Your case," he wrote, "is exactly analogous to two others upon which I have operated. In both I told students and patient that I did not expect to do any good, but that, as the condition was hopeless and the operation free from danger (practically), I thought it a justifiable procedure. In each the 'cord' was firm fibrous tissue like a lead pencil; both healed by primary union, but neither showed any recovery of power. I feel quite sure that operation will do no good in your case, but I have a 'but.' We are still feeling our way, and in such a condition I think that we are bound to go on looking for off-chances of a remediable condition. I should have the operation done if I was in the position of your patient, and therefore I should not withhold it from him." Supported, therefore, by this weighty opinion, and with the full appreciation of the position by the patient and his parents, the operation of laminectomy was performed on Oct. 12th, the most prominent part of the spinal projection or deformity being taken as the centre of the longitudinal incision. There was next to no bleeding and the operation itself presented no difficulties, but not a trace of spinal cord could be found at the site of the acute spinal bend, its place being taken by a dense mass of fibrous tissue. The laminæ and spines of two vertebræ were removed, and it was obvious that at the site of the deformity the spinal column had been bent acutely forwards, and that the antero-posterior diameter of the spinal canal was thereby greatly diminished, that it was little more than a chink, and that the vertebral arches almost touched the vertebral bodies. It looked, indeed, very much as if the cord might have been destroyed by the direct crush of displaced bones, but there was no object in further exploration and the wound was closed. Primary union took place in the most approved manner, and the condition of the patient has been absolutely unaltered since. In process of time—it may be a long time—we shall have an opportunity of seeing what precisely was the extent of the injury to the spinal column, but as far as the spinal cord is concerned it is unlikely that we shall learn more than we already know—that it had been totally destroyed and replaced by an utterly useless mass of connective tissue.[1]

I wish to discuss with you some of the points which this case presented, and especially to consider the question of operative interference in cases of fracture-dislocation of the spine. It is not very many years ago that I myself, in writing upon this very subject, went so far as to say that the operation of trephining the spine in such cases was an operation not within the range of practical surgery; but operative methods and the range and scope of operations have vastly improved since that day, and, as far as the operation itself is concerned, we now can say of it that it is comparatively free from danger and is very much within the range of practical surgery. You know as well as I do why this is. But while this much may be admitted, it cannot be denied that as an immediate measure for giving relief, and possibly saving life, in cases of fractured spine, the instances are few and far between in which it can be of use; and we need to exercise all circumspection that we do not run into the extreme of resorting to operation without reasonable prospect of doing good by it. Are we likely to be able to lessen the paralysis? Is there any prospect of our being able to save life? In order to answer these questions we must bring to bear upon every case our knowledge of the varieties of injury, and the mechanism of the injuries, of the spinal cord itself in fracture-dislocation of the spine, and consider from every point of view the symptoms and phenomena which the case presents. And here it is that the behaviour of the reflexes comes to be of considerable value in enabling us to say whether the cord has or has not been totally destroyed.

Let me first draw your attention for a few moments to the various ways in which both spine and spinal cord may be injured in these cases of fracture-dislocation. If we put aside the cases of direct injury from a blow on the spine, where fracture of a spinous process or through the laminæ is the most probable form of injury, it is the fact that in the great majority of the cases of fracture-dislocation the injury has been caused by indirect violence. A man falls out of a window or is thrown out of a trap, and as he falls and alights upon his back, the spinal column at one part or another, in the cervical or dorsal region as the case may be, is bent beyond the limits of the strength of the several structures which hold the parts together. There is, in fact, overbending of the spine, and very commonly this excessive bending is in the antero-posterior direction. This is well seen in many of the specimens in our museum, where the bend of the column in this direction has led to the fracture and separation of a portion of the upper half, more or less, of the anterior part of a vertebral body. In the dorsal region this is unquestionably the commonest form of bone lesion; but according to the amount of the violence and the strength of the particular part of the column affected lines of fracture may run through other portions of the vertebræ and come to detach fragments of various sizes. Everything

[1] The patient died on Jan. 16th, but no necropsy was held. There had been no change in his condition.

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depends on the nature of the fall, the violence of the bend, and the strength of the column, and it is practically certain that at the moment of the injury there is very commonly dislocation associated with the fracture. "Fracture-dislocation" is, indeed, the most appropriate term to use in speaking of these cases of indirect injury and overbending of the spine. As far as the dislocation is concerned, the accompanying fracture may be of such a kind, and the degree of displacement may be so great that the dislocation abides and deformity may be felt on external examination; but it is by no means uncommon for the dislocation to be of transient duration, and for all trace of it to have disappeared directly after the injury has been sustained. This is due to the natural resiliency of the ligaments whereby the dislocated parts are restored immediately to their normal relative positions; and we know that this must have occurred by the post-mortem observation that even in cases where there had been no outward deformity during life it is often comparatively easy to induce displacement and to restore the parts directly to their natural positions. For obvious reasons displacement is more likely to be transient in the cervical than in any lower part of the spinal column. Two things then have to be borne in mind in any given case that deformity may call for rectification, in order to release the spinal cord from the injurious pressure of bone, and secondly, that even though there is no deformity there is a great probability that parts were displaced at the time of the accident, and that they have returned spontaneously to their natural positions. It frequently happens, therefore, that examination of the spinal column gives us practically no information as to the extent of fracture or of the amount of displacement which there may have been at the moment of the accident. If the surgeon should find any deformity, however, he must consider the propriety of resorting to measures for its removal either by operation or forcible extension, in the hope of being able to restore the spinal canal to its natural site; but in the long run unfortunately it is the physiological effect of the cord lesion by which he has to determine the nature and real gravity of the injury sustained. The fracture-dislocation by itself is of comparatively small moment; it is the concomitant nerve lesion which makes all these cases serious, and in every one of them it is your duty to consider the question of operative measures for releasing the cord. Consider, however, in what manner the cord is commonly damaged in these cases of fracture-dislocation. In a large number of cases no doubt it is directly crushed by displaced bone, whether the displacement be transient or permanent; but in all probability the cord sometimes gives way and its constituent elements are torn asunder by the violent bend to which it has been subjected in company with overbending of the spinal column. After death the cord may be found locally bruised by bone which is still pressing upon it, or it may show all the signs of severe local bruising without displacement of bone, the dislocation having been spontaneously reduced; it may be found completely torn across without much indication of bruising, or, on the other hand, there may be extensive hæmorrhage into its substance whereby its delicate structure is completely destroyed; and any one of these lesions may exist without obvious damage to the membranes. It was widely held at one time that these cord lesions were due to concussion, but I myself have never been present at a post-mortem examination without finding such evidence of injury to the spinal column as to make it practically certain that overbending of the spine had occurred. This surely provides a far better explanation of the lesion than any hypothetical concussion of the cord. Moreover, it cannot be too often urged that the physical surroundings of the spinal cord are such as to render it practically immune from the effects of blows upon the back of such a kind as would inevitably in the case of the skull have caused concussion of the brain. It is absolutely essential for the functional integrity of the spinal cord that it be safe from the injurious effect of blows upon the back, and it is impossible to conceive an arrangement more beautifully adapted for this purpose than that by which it is suspended in the spinal canal, nowhere touching the bony walls, and surrounded by a soft and protective cushion of fat and fluid. Positive evidence, moreover, is against the theory of concussion, for consider how rare it is to meet with any ill-effect upon the cord in cases where there has unquestionably been a direct local blow upon the spinal column. It is only in the lowermost parts of the spine, and that very rarely indeed, where cord and cauda equina practically fill the spinal canal, that concussion plays a part in causing nerve lesion from blows upon the spinal column, but the vast strength and size of the bones in this region and the great depth of the cord from the surface provide additional protection and security.

We may take it, then, as an accepted fact that the spinal cord is injured in cases of fracture-dislocation either by displacement of vertebræ, transient or abiding, or by the bend to which it has been exposed in overbending of the column. As you well know, the indications of grave injury are commonly not far to seek; the patient is paralysed both as to motion and sensation in the parts below from the moment of the accident, and physiological investigation of the range of anæsthesia and of the muscles which are paralysed is alone left us to determine at what level the cord has been injured. I do not propose to deal with this branch of the subject to-day. I rather wish to speak of the information which is given by the behaviour of the reflexes, which may be of practical value in telling whether the cord has or has not been injured beyond possibility of repair—whether, in fact, there has been a total transverse lesion or some of the conducting fibres remain intact. Let us look into this matter. It was originally held and taught that after transverse division of the cord the reflexes were entirely abolished for a time by reason of shock, that they then presently began to return and went on increasing until they became excessive, with the development at the same time of muscular rigidity. This doctrine was first called in question, I believe, by Bastian, who brought forward a series of cases to show that after total transverse lesion of the spinal cord in the cervical or upper dorsal regions both deep and superficial reflexes were lost and so remained, with flaccid paralysis of the muscles, while the organic reflexes of the bladder and rectum were retained. These observations have been confirmed by Bowlby and Thorburn in several cases of traumatic lesion, and isolated instances have been recorded by many others. Thus Bowlby had eleven cases from which shock could be definitely excluded, as the patients lived for periods varying from three days to ten months. In all there was total paralysis of sensation and motion below the lesion, the urine was retained, and the fæces passed unconsciously. The deep reflexes were permanently lost in all of them. It is a point of much interest in some of his cases that although the deep reflexes were completely and permanently absent the superficial reflexes were certainly not always lost. Thorburn, on the other hand, concludes from the observation of nineteen cases of his own that both superficial and deep reflexes are permanently and completely abolished, and that it is only in partial lesions of the cord that the reflexes are retained or exaggerated. In only two of his cases was there temporary return of superficial reflexes, but there were special circumstances in each to lessen the value of the observation. He summarises them thus: "1. Shock is not the cause of early loss of reflexes in spinal injuries, as such shock is just as great in cases in which these are retained as in those in which they are lost. 2. When the lesion causes complete paralysis and anæsthesia the deep reflexes are always lost. 3. When motor or sensory power or both return in even a slight degree these reflexes also return. 4. When no such recovery occurs the deep reflexes remain absent for periods of practically indefinite duration. 5. When the lesion does not cause complete paralysis and anæsthesia the deep reflexes remain in either a normal or an exaggerated form. 6. But if the motor and sensory symptoms afterwards become complete such reflexes disappear. 7. The superficial reflexes do not, however, conform absolutely to these rules. In nearly all cases both of complete and partial lesions these disappear and remain absent, the 'plantar reflex' only existing. The latter is obtained in many cases of complete and partial lesions." I will not trouble you with any remarks on the special reflexes of the bladder and rectum, but will direct your attention, or those of you who care to pursue the whole subject further to a most admirable and exhaustive digest of it by Dr. Reynolds in the spring number of *Brain* for this year. All the recorded cases are there brought together and the main conclusion from the consideration of them is thus given. "After total transverse division of the cervical or upper dorsal region of the cord there almost always results a lasting loss of the deep reflexes of the legs with flaccid paralysis of the muscles, and at the same time there may be no marked atrophy of the muscles, no great alteration of the electrical reactions, and no affection of the grey matter in the lower dorsal and lumbar regions." Another point of great

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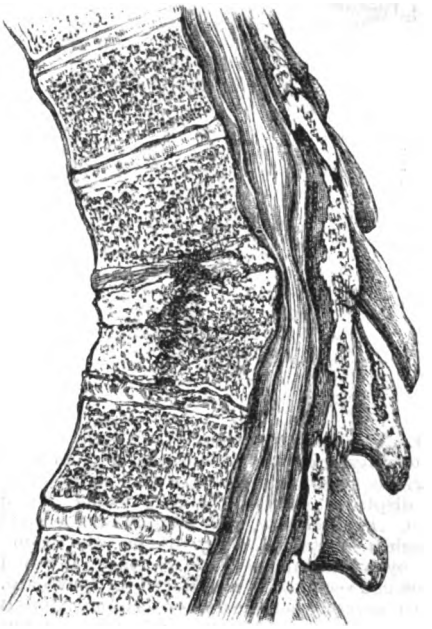
practical importance is this: "When we have the pathological condition of total transverse division of the cord we have undoubtedly the clinical condition of total motor and sensory paralysis; but the converse does not necessarily follow by any means, and certainly the two statements cannot be used as controvertible terms in relation to the loss of the reflexes." "If the cord is totally divided the knee-jerk is lost, but if only compressed even to the extent of causing total loss of motion and sensation in the legs the knee-jerk is retained and generally exaggerated." As regards the superficial reflexes it is further established from the account of many, though by no means all, of the cases that after a time they may be re-established and even increased, and that the plantar is the one "most commonly present, often the cremasteric, and most rarely the abdominal and epigastric." "In a small minority of the cases the superficial reflexes are stated to have been absent throughout. ..... It must, however, be remembered that it is not always easy even in a normal individual to obtain all the superficial reflexes at any one time. There are, in fact, many at present unknown influences affecting their absence and presence, quite apart from total transverse division of the cord." I have made considerable use of the digest to which I have referred in framing these remarks, but I think enough has now been said to show that examination of the reflexes ought to be carefully carried out from day to day in all cases of fracture dislocation, and that their behaviour may be of inestimable value in coming to a decision as to the likelihood of good from operation. Let me now relate two cases of our own. The first is of interest from several points of view. The deep reflexes were permanently abolished during the many months the patient lived, but the superficial epigastric and cremasteric reflexes, though strangely "delayed" in their manifestation, were occasionally present for a short time.

CASE 1.—A man aged twenty-two years was admitted to hospital on May 7th, 1890, a few minutes after he had fallen thirty-five feet from a roof. He was seen to alight upon a railing a few inches from the ground in such a manner that his back struck it parallel with his spine. He then rolled over and was picked up in a state of collapse. He was perfectly conscious when brought to hospital and complained of pain in the dorsal spine. An extensive bruise and hæmatoma were found extending from the lower angles of the scapulæ as high as the last cervical vertebra, confirmatory of the account we had had of the way in which he had been seen to fall. The vertebral spines could not be very easily felt because of the swelling, but we were unable to detect either mobility or crepitus. He was absolutely paraplegic, and sensation was entirely lost below the level of one inch above the umbilicus. All reflexes, both superficial and deep, were absent below this level. There was priapism and retention of urine. Most careful consideration was given to the question of operation, but no good was thought likely to follow it. There was practically no change in his condition on the following day, but he had rallied from the collapse. There was now the faintest return of epigastric reflex, with a very slight suspicion of hyperæsthesia immediately above the level of the line of anæsthesia. His temperature was 99° F. On the morning of the 9th his temperature had risen to 102°, but the level of anæsthesia remained unaltered, the hyperæsthesia had disappeared, and beyond the rise of temperature there was no evidence of any advancing myelitis in the cord. The next day a suggestive indication of some further lesion in the cord was noted in the presence of well-marked sympathetic paralysis of the right side, as shown by loss of dilatation of the pupil, depression of the globe, and narrowing of the palpebral fissure. Investigation revealed, however, that there had been some injury about the shoulder, and we came to the conclusion, which the subsequent course of the symptoms confirmed, that the sympathetic paralysis was due to extra-spinal injury. Towards the end of June it passed away, coincidently with the gradual and complete restoration of power and sensation in the arm, the transient and partial loss of which had been due to some injury about the cords of the brachial plexus. The level of anæsthesia never varied in the least from that already named. On the 11th the priapism was not so marked, and he had a sensation of fulness in his bladder which led him to ask that his urine might be drawn off. It may be said once for all that the deep reflexes never returned even in the faintest degree, and no day passed, I think, without their being tested. On the 12th there was a faint "delayed" cremasteric reflex on the left side, and on the following day it was noted to an equal degree on the right side also. On the 14th there was no trace of it on either side. There was no noteworthy change until the 26th, when it was observed that on gently tapping or pinching either leg a faint twitching ensued and the knees became slightly flexed at the same time. Moreover, when the tibiæ were tapped he said he felt it, but it was questionable whether he had any real tactile sensation of what was being done. All reflexes were absent. There was a threatening of pressure sore on the left heel and touching this seemed more readily to elicit movement of the leg than tapping or pinching elsewhere. All the same, he was absolutely anæsthetic over the legs. On the 29th the body above the line of anæsthesia was bathed in sweat, while all the parts below remained dry. On June 3rd the movements of the legs were still induced and there was the very slight cremasteric reflex on both sides. Up to the 14th there was retention of urine, but on this day incontinence set in and continued to the end, so that very little could be drawn off by catheter. On the 27th the leg twitchings were still present, but there were no reflexes. It was noted on this day also that the movements were a distinct annoyance to him, and the knees had gradually become more and more flexed. On the 30th the urine was for the first time alkaline. After July 15th no reflexes were noticed, and all movements of the limbs had finally ceased, save that on the night of July 30th his sleep was disturbed by involuntary twitchings of the legs. In the middle of September he had vomiting, rigors, and high temperature, and the end was thought to be near. No alteration occurred, however, in the limit of anæsthesia or in the motor paralyses, and the disturbance was regarded as in all probability due to septic inflammation in the urinary tract. He recovered from this attack, and it was not until the end of October that there was another like it. He passed through November and December without noticeable disturbance of health, and he was fairly comfortable and happy. Movements of the limbs had long since gone and there was not a trace of reflex. Jan. 15th at length saw the beginning of the end, and after a tempestuous period of rigors, frequent vomiting, and high temperature, attributed to renal failure, he died on Feb. 10th, 1891, ten months after his admission to hospital.

FIG. 1.



Necropsy.—The post-mortem examination was of singular interest, not alone as regards the spinal cord, but also as regards the injury to the spinal column. Here is the specimen. The column has been longitudinally divided in the middle line, and you can see that at the junction of the seventh and eighth dorsal vertebræ (see Fig. 1.) it is bent forwards at an angle of 40°. The bend is seemingly due to decrease in depth of the body of the eighth vertebra, and if

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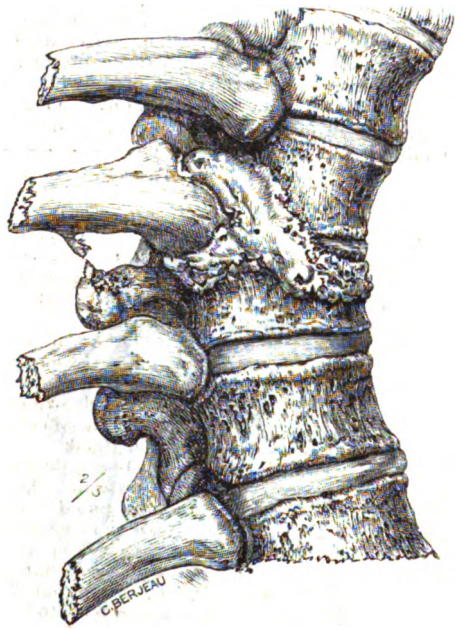
we look carefully at it it is evident that there had been a line of fracture of a very unusual kind. The right lower articular facet for the rib on the seventh vertebra has been detached, and from this point a prominent ridge of callus runs downwards, forwards, and inwards, uniting the seventh and eighth bodies (see Fig. 2). Examination of the face of the section of the eighth body reveals, as far as it is possible to make out—and it must not be forgotten that in the ten months the patient lived there was ample time for much repair—that there had been in all probability a horizontal fracture through the centre of the body, and that a second line of fracture had run from the centre of the bone forwards and downwards and had so separated the anterior portion of the body. At any rate, the body of the eighth vertebra seems to have been much broken up, and its vertical thickness has been much diminished. The intervertebral disc is normal except at the extreme right, where it is crossed by the callus which has been named (Fig. 2), and here it is distinctly

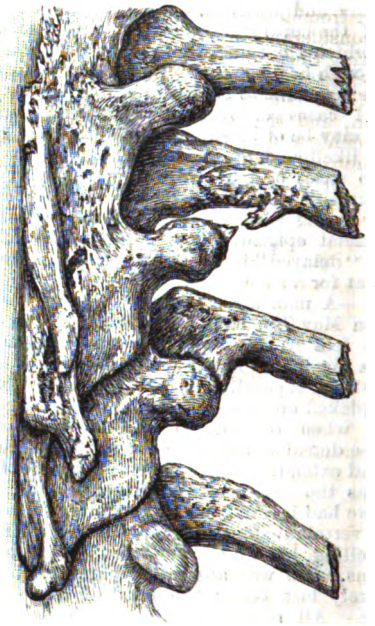
FIG. 2.



ossified. The head of the eighth rib is resting on, and is in all probability united by bone to the ridge of the callus, and its angle is separated from the transverse process (Fig. 3), being displaced forwards and upwards for a third of an inch. Furthermore, the laminæ of the sixth, seventh, and eighth vertebræ (Fig. 3) on the right side are united by a continuous plate of bone. If you look at the cord you can see how it is reduced in bulk (Fig. 1) as if it had been severely compressed or torn immediately above the junction of the seventh and eighth bodies corresponding with the prominent angle in the column, and section shows that it has been replaced by fibrous tissue. It has not been examined microscopically, however, and it looks as if some fibres of it passed uninjured by the site of the lesion, was thus not "total" in the true sense of the word. The dura mater is adherent to the vertebræ on the right side at the seat of fracture, but the calibre of the spinal canal has not been much reduced in size.

Two points are especially worthy of note in connexion with these lesions of the spinal cord and the spinal column. It is, in the first place, obvious that the spinal cord was injured locally at the site of the bend in the spinal column; but the lesion was seemingly not a "total transverse lesion," and it is therefore interesting to recall the clinical fact that there was occasional return of some of the superficial reflexes, that the legs jumped and became drawn up, and that the patient said he had some sort of sensation on two separate occasions. There was not that flaccid paralysis and absolute immobility of the limbs which we have heard is the rule in cases of total transverse lesion, and which our other two cases exemplify, and it suggests that such conductivity of the cord as remained, even though very slight and most imperfect, may have been the reason why in this, and possibly in other cases, the behaviour of the superficial was different from that of the deep reflexes. It tends to show, moreover, that in their essential nature the two sets of reflexes differ widely. Secondly, the specimen is of much interest from the character of the injury to the spinal column. I told you how the man was seen to fall, and the nature of the lesions confirms the accuracy of the observation in that particular point. The column was damaged over a wide area, and it is not easy to conceive a form of accident and injury more calculated to cause a concussion-lesion of the cord, and yet the cord nevertheless shows no other indication of lesion than such as we are accustomed to find in cases of sudden and acute excessive bend. From this point of view the injury both to column and cord is, to my mind, extremely interesting and instructive, and confirms in a singular manner the views which have been expressed as to the mode in which the cord is commonly injured in cases of fracture-dislocation of the spine.

FIG. 3.



CASE 2.—A man thirty years of age on June 22nd last fell from a balcony twenty-five feet and was found helpless and taken at once to hospital. He was conscious but collapsed, and was too intoxicated to give any intelligible account of himself. He cried out, however, when his back was raised and complained of pain in the uppermost region of his dorsal spine. No abnormality or irregularity of any kind was to be found about his back, and the only visible lesions were two scalp wounds on the occiput. He was absolutely paralysed in the lower limbs, in the abdominal and intercostal muscles, and the breathing was entirely diaphragmatic. His upper limbs were partially paralysed. Thus his forearms, hands, and fingers were in the position of flexion, and very little power of extension remained. What there was was rather better in the left arm than in the right. He was certainly able to use some of the shoulder muscles, for he could raise the arms a little from his side. There was complete loss of sensation below the level of the first intercostal space. There was retention of both urine and fæces. The wounds of the scalp suggested that he had fallen on the shoulders and head and that there had been fracture-dislocation of the spine and injury to the spinal cord in the lower cervical region. The reflexes, both superficial and deep, were altogether absent. The character of the respiration and the height of the paralysis led us to predict that the patient would not live long, and after the lapse of twenty-four hours not only was his breathing more difficult but such small power as he had had of moving his arms had materially diminished. His temperature also had gone up to 105° F. Nevertheless he lingered on until the morning of the 27th, his temperature before death from respiratory failure having arisen to 108°. His upper limbs

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had become absolutely paralysed in all their movements. There had been no trace of reflexes either superficial or deep.

Necropsy.—The post-mortem examination disclosed complete separation of the sixth cervical vertebra from the seventh, with rupture of the posterior common ligament and of the ligamenta subflava. There was no fracture. At the level of this injury and for half an inch above and below it the spinal cord was reduced to a purple-coloured pulp. The membranes were intact, and there was no hæmorrhage in the spinal canal. Furthermore the manubrium was loosened from its attachment to the body of the sternum and was freely movable. It was very obvious that no good could possibly have come from operation in this particular instance, for the cord had been totally destroyed. As far as the nature of the accident, of the symptoms, and the post-mortem appearances were concerned the case tells us nothing with which we were not perfectly familiar before, but it is nevertheless of interest from the special point of view of the behaviour of the reflexes and was fully in accord with the experience of other cases.

Since these notes were put together for the purpose of this lecture another case has been admitted of fracture-dislocation in the dorsal spine, where the presence of deformity led me to advise operation. The man has declined it, but I am disposed to think it might have been of use, for anæsthesia is not absolute in the legs, and there are occasional signs of superficial reflexes, although the deep ones are entirely absent. I will not trouble you with the notes of this case.

Gentlemen, I commend these various matters to your practical consideration when you have to treat a case of fracture-dislocation of the spine.

GLEANINGS FROM SURGICAL PRACTICE.

BY THOMAS BRYANT, M.CH., F.R.C.S. ENG. & IREL.,
PAST PRESIDENT OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND; CONSULTING SURGEON TO GUY'S HOSPITAL.

V.[1]—ON THE DIAGNOSIS AND TREATMENT OF EARLY CANCER AND CYSTS OF THE BREAST.[2]

A SERIES of cases of cystic disease of the breast, most of which had been diagnosed as cancerous tumours, having recently passed under my notice, has induced me to place the following notes together, for I am convinced by the forcible evidence of experience that the diagnostic acumen of my professional brethren is not exercised in this class of cases with the same care as it is in other classes, and particularly in such as have a more immediate bearing upon life; and under these circumstances, since the diagnosis of this class of cases is uncertain, it goes without saying that the treatment is of the same uncertain character. A well-marked or typical example of carcinoma of the breast, with the infiltration of one or more of its lobes, the dimpling, puckering, or infiltration of the skin over the affected lobe, with or without some retraction of the nipple, is diagnosed at once, at whatever period of life the disease may have appeared, and if the lymphatic glands of the axilla are enlarged the diagnosis is considered to be complete; the most reliable indications for diagnosis being the infiltration of the breast gland with the more or less infiltration of the skin over the gland. It may also be said that a nodular, movable lump within the capsule of the breast, which slips about freely on manipulation, and which seems to be attached to, but neither to be infiltrating nor to form part of, the breast gland itself, with a natural nipple and normal integument covering the growth, is also readily recognised as one of adeno-sarcoma; and if the growth itself be fleshy and the subject of the growth be young the affection is regarded as one of adenoma or glandular tumour, and if the tumour be hard and fibrous as an adeno-fibroma; although, should an enlarged axillary lymphatic gland be found under either of these conditions some difficulty in the diagnosis may be experienced. Under both circumstances, however, the age of the patient—of being over forty years of age in one case and under thirty years in the other—has probably an undue influence in determining the decision. Again, in advanced ulcerating or fungating conditions of cancerous or sarcomatous growths, diagnostic difficulties are not likely to occur, and if they do, such difficulties would not probably have any injurious influence on the treatment of the case. In inflammatory affections of the breast, as met with in single, pregnant, or suckling women, difficulties of diagnosis are not often experienced, although examples of chronic abscess of the breast, tuberculous, specific, or simple, when they appear at some remote period after functional activity of the gland has disappeared, may occasionally cause confusion. The following case is much in point.

CASE 1.—A woman aged thirty-nine years, the mother of a child aged two years and a half, came to me for some thickening and pain in her left breast associated with a retracted nipple, puckering of the skin over the thickened lobe, and enlargement of a lymphatic axillary gland. The local symptoms as described at once suggested some carcinomatous infiltration, but on going into the history of the case it was discovered that the woman had never been able to suckle with the affected breast on account of its having a retracted nipple which had followed the formation of an abscess in the breast twelve years previously, and that she had been suckling with her right breast up to five weeks before I saw her. With this history the case became fairly clear, and some chronic inflammatory condition of the left breast was diagnosed and subsequently treated with success. The puckering of the skin over the infiltrated breast lobe was due to its adhesion to the deeper structures, the result of the abscess which had formed there twelve years previously.

The difficulties of diagnosis in tumours of the breast may be said to come in when there are any or many deviations from the typical examples which have just been described, and as I believe these difficulties can be diminished I propose to call attention to them, and for purposes of clearness have grouped the difficult cases as met with in practice under three headings, looking at them from a practical point of view with diagnostic and curative intentions.

Group I. includes cases in which, either in a young, middle-aged, or even old married or unmarried woman, there is some enlargement or thickening of one or more lobes of the mammary gland, without any external evidence of wrong either in the integument covering the affected lobe of the breast, the nipple, or the lymphatic glands.

Group II. comprises cases in which there is a distinct and very evident lump, the size of a nut or walnut, shelled or unshelled, and inseparable from the breast gland, with some of the local conditions generally accepted as being indicative of a cancerous tumour, such as a flattened or retracted nipple, with or without an enlarged lymphatic axillary gland.

Group III. includes cases in which, in the middle-aged woman past child-bearing, the breast gland feels to be either generally or in one or more of its lobes harder than natural, coarse or knotty, the knots varying in size from small to large peas or nuts, and where there may be at times, with or without the application of pressure upon the gland, some discharge from the nipple of either a clear yellow or blood-stained fluid, or some cheesy pultaceous material, associated or otherwise with an enlargement of some lymphatic glands. In all the cases included in these three groups difficulties in diagnosis may be experienced, but they are surely not so serious as not to be overcome wholly or in part by careful examination and thought, or, at any rate, overcome with sufficient clearness as to justify the adoption of a definite line of treatment, based upon a highly probable diagnosis and the rejection of that pernicious negative line of treatment which must be described as that of drift.

GROUP I.

This group includes cases in which, either in a young, middle-aged, or even old married or unmarried woman, there is an enlargement or thickening of one or more lobes of a mammary gland without any other external evidence of wrong in either the integument covering the affected lobe of the breast, the nipple, or lymphatic glands. In such a case, if found in an unmarried girl, we are justified in coming to a conclusion that the affection is to be explained by the presence of some local congestion or inflammation associated with either catamenial disturbance or due to some local injury, and the case may be regarded as a simple one which is probably amenable to curative general and local treatment without operation. If found in a middle-aged woman who either is pregnant or has been suckling recently, or even somewhat remotely, the enlargement may also be

[1] Nos. I., II., III., and IV. were published in THE LANCET of Nov. 2nd and 9th, Dec. 7th, 1895, and Jan. 11th, 1896, respectively.

[2] A paper read before the Medical Society of London on Dec. 9th, 1895.

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regarded as being probably inflammatory, although the possibility of the thickening being due to retained and concentrated milk products or to some chronic suppurative action should not be overlooked. But if found in a single or in a married middle-aged or old woman whose breasts have never been, or have long ceased to have been, functionally active, and in whom the elements of traumatism can be eliminated, the case cannot be thus explained, and to shelve it as one of irritable breast in a woman at a certain period of life is neither judicious nor in any way wise practice; for in the truly irritable breast the whole gland, or both glands, are usually more or less implicated and highly sensitive, whereas in the class of cases now under consideration what seems abnormal appears only as an induration or thickening of one lobe of an otherwise normal gland, and this lobe is not usually very tender. Indeed, if we apply to the consideration of such a case as this the invaluable method of diagnostic investigation—that of exclusion—we shall soon come to the conclusion that the probabilities of the case before us are in favour of the view that it is one of carcinoma in its very earliest stage—that of commencing infiltration,—although the possibility of the enlargement being due to the presence of a cyst should not be forgotten; and, if this diagnosis be correct, surely there is but one sound line of treatment to follow, and that is the removal of the disease. As a preliminary step to this measure, if found needful, I hold, therefore, that an exploratory incision should at once be made into the doubtful swelling, for by this simple act the true nature of the affection will not only be definitely determined, but the very best means will have been employed by the surgeon to bring about a cure—for, if a cyst be found, the exploratory incision will enable him to cure the trouble in the way he thinks best, and if the enlargement be due to a carcinomatous infiltration the surgeon would at once proceed to its extirpation with the whole gland—and this he would do under such favourable circumstances as to justify his giving a prognosis of the most hopeful and confident description. For if a permanent cure can ever be looked for after the extirpation of a cancerous tumour, it surely is more likely to follow the removal of a disease in its earliest local stage than in any other more advanced. For a surgeon to leave a patient in the condition described, to drift with what may be, and in all probability is, a local cancerous affection in its very earliest stage, when the very best prospects of a cure by its removal may reasonably be entertained, until, by the appearance of more marked symptoms, the diagnosis can no longer be considered doubtful is in my view of the matter a neglectful and culpable act; for, so far as the patient is concerned, nothing but harm can come by delay, whereas by the action I am urging nothing but good can possibly accrue. The argument I am now using if put before a patient is almost sure to have its full value recognised, and in my personal experience it, as a rule, leads to action. I have in at least three dozen instances followed this practice during the last ten or twelve years, and I am pleased to add that I have not as yet had a case in which a local return of the disease has come before me, although I have had one in which the opposite breast was similarly attacked four and a half years after the removal of its fellow.

GROUP II.

This group will include cases which are met with in middle or old age, and characterised by the presence of a distinct and very evident tumour. The tumour may vary in size from that of a nut to a walnut, shelled or unshelled, is inseparable from the breast gland and situated either near the centre of the gland or in one of its lobes. In one case this tumour may be the only objective symptom, the integument over the tumour and the condition of the nipple being normal, whilst in another case one or more of the local conditions which are generally accepted as being indicative of cancer, such as a flattened or retracted nipple or an enlargement of an axillary lymphatic gland, may be coexistent. In a majority of the cases included in this group a diagnosis of cancer is at once made, particularly in those included in the latter half, in which either the nipple or lymphatic glands are implicated. But I must here add that in a large proportion of these cases an error in diagnosis has been made which I do not think would have occurred if every practitioner followed the rule which I have learnt to follow as a matter of routine, and that is, always raise the question as to the possibility of the tumour being due to the presence of a cyst, when, should the surgeon's sense of touch be keen enough to detect an elasticity in the swelling, or even a fluctuation, with the patient placed flat upon a couch and the breast gland made to rest upon the ribs, the diagnosis of a cyst may with safety be hazarded, although what the contents of the cyst may be cannot be otherwise than a somewhat dark point. If a clear serous fluid can be made to flow from the nipple by manipulation or pressure upon the tumour, the probabilities of the cyst being a simple serous cyst are rendered great. If the fluid be brown or blood-stained the existence of an intracystic growth of some kind may be suspected; and if the discharge be more like pure blood a soft, solid growth, sarcomatous or carcinomatous, should be feared. When there is no discharge from the nipple, as is often the case, and the other conditions are the same, the chances against the swelling being caused by a cyst are not lessened, although the view of the cystic enlargement being rather due to the presence of some soft, solid sarcomatous growth would be much encouraged.

The flattening out or retraction of the nipple is a condition which should not be allowed to complicate the diagnosis of cases such as these, for the condition is a mechanical one, and whether the ducts of the gland on their way to the nipple are separated by a cyst and so cause retraction of the nipple or are affected by a carcinomatous growth is immaterial, for the result is the same. In all these cases, however, the line of treatment lies in that of exploration of the tumour, when, if the case prove to be one of simple cyst, so much the better, for such can be cured by simple means and the breast gland be saved. If a growth be found sprouting into the cyst the cyst must either be dissected out or the affected lobe of the gland sacrificed; and if the growth has the aspects of a carcinoma the whole gland should be taken away, the finger of the surgeon being used to explore the axillary space through the wound for enlarged glands, with a view to their removal should such be found. But what is all-important for the surgeon to have prominently in his mind when examining any of the cases which have been grouped together under the heading now under consideration is the probability of the case being a cyst, and if there be a question as to its diagnosis, the expediency of having the tumour explored with a view to its cure. The following cases illustrate most of the points to which attention has been drawn.

CASE 2. *Tumour in the left breast suspected to be cancerous; exploration; cyst found and cured by sponging it out with solution of iodine and plugging.*—A woman aged forty-six years, the mother of two children, both of whom she nursed, although whilst suckling the second child, now twenty years of age, the left breast became inflamed, consulted me in July, 1894, for a hard, nodular lump the size of a walnut in the sternal half of the left breast, which had been enlarging for about four months. The whole gland was coarse, but there were no other objective symptoms. As I suspected the lump was due to a cyst, I explored it a few days later and verified the diagnosis. I sponged the cyst out with a strong solution of iodine and plugged the cyst with iodoform gauze. A steady recovery ensued.

CASE 3. *Tumour in the breast with retracted nipple supposed to be cancerous; exploration; cyst found and dissected out.*—A woman aged fifty-two years, the mother of two children, consulted me for a lump she had noticed in her left breast, which had been growing for six months and which was full of pain. The tumour filled the axillary half of the gland and the nipple was retracted and drawn towards the tumour. I explored the tumour and found one large, deeply-seated cyst which did not contain growth. This I dissected out and a good recovery followed. Three years later the patient was still well.

CASE 4. *Central tumour in breast with flattened nipple regarded as cancerous; exploration; cyst opened, sponged with solution of iodine, plugged, and cured.*—A married woman aged thirty-six years, childless, consulted me for a tumour occupying the centre of one of her breasts which had been slowly increasing in size for many months, but was not very painful. The nipple was completely flattened and spread out over the tumour. I explored the tumour and exposed a large central cyst which contained serous fluid, but no growth. This I sponged out with a strong solution of iodine and plugged with iodoform gauze and a good recovery followed. This patient was quite well two and a half years later.

CASE 5. *Tumour in the breast thought to be cancerous in a woman aged sixty-three which turned out to be a cyst which was cured by plugging.*—A single woman aged sixty-three years consulted me for a tumour in her right breast which had

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been slowly increasing for more than a year. The nipple was natural. The tumour had a very regular outline and to my finger was elastic, which suggested the probability of its being a cyst. I advised its exploration, which was done, and the diagnosis was verified and a cure effected by plugging.

CASE 6. *Tumour in the breast the size of an egg; exploration; cyst found and cured by plugging.*—A single woman aged forty years by an accident discovered a tumour in the right breast, which had attained the size of an egg when I saw it. It occupied the axillary lobe and had a regular outline. It felt elastic and to a degree was fluctuant. I explored it, and having exposed a cyst with a smooth lining plugged its cavity with iodoform gauze and allowed the wound to heal by granulation. A good recovery ensued.

CASE 7. *Central tumour in the breast with flattened nipple simulating cancer; cyst opened, sponged out with zinc chloride, plugged, and cured.*—A woman aged fifty-one years, the mother of five children, none of which she nursed, consulted me for a lump in the centre of her breast which had been slowly growing for some months. The nipple was completely flattened out. After examination I suspected the presence of a cyst and recommended exploration. This I did, and having exposed a large serous cyst I incised it and stitched its walls to the edges of the wound in the integuments. I then sponged out the cyst with a strong solution of chloride of zinc (40 grains to the ounce) and plugged it with iodoform gauze, a rapid recovery taking place.

CASE 8. *Tumour in the breast with gradual retraction of the nipple simulating carcinoma; exploration; cyst found, dissected out, and cured.*—A woman aged 50 years, the mother of two children, came to me with a tumour the size of an egg in her right breast, which had been slowly coming for two years. It had been at times the seat of much pain and for more than one year the nipple had been disappearing. It had been called a cancer. When I saw her I made out by palpation, on placing the patient in the supine position, fluctuation, and consequently explored the tumour, when a cyst was opened and dissected out, a good recovery ensuing. Three years later this patient was well.

CASE 9. *Tumour in the breast diagnosed as cancerous; cyst found containing blood-stained fluid, which was dissected out and cured.*—A married woman aged fifty-six years, childless, consulted me for a tumour in the upper half of her right breast which had been growing for six months and had caused pain. There were no other symptoms. Suspecting a cyst I explored the tumour and evacuated blood-stained fluid. I dissected out the cyst and a good cure followed. Three years and a half later the patient was well.

CASE 10. *Tumour in the breast supposed to be cancerous; cyst found and dissected out; recovery.*—A single woman aged forty-eight years consulted me for a lump in her left breast which she had discovered by accident six weeks previously. It had steadily enlarged, and when seen by me was as large as a Tangerine orange. It was very hard. Suspecting cyst I explored it, and, finding a cyst, I dissected it out and a good cure ensued. This patient's mother and two maternal aunts had carcinoma of their breasts. In such cases as these with cancer in the family the cyst should always be dissected out.

CASE 11. *Tumour in the breast; cyst found and dissected out; recovery.*—A woman aged forty-five years, the mother of five children, all of which she suckled without trouble, consulted me for a hard lump in her right breast, which had been slowly growing for many months. It was globular, deeply placed, and elastic, and diagnosed as a cyst. When explored the diagnosis was verified, and the cyst was full of dark brown fluid. The cyst was dissected out and a cure followed.

CASE 12. *Tumour in the breast supposed to be cancer; cysts found in exploration; general cystic disease of the breast; excision; patient well seven years after.*—A single woman aged forty years consulted me in 1888 for a hard tumour in her breast which was supposed to be cancer; it had been growing for some months. I explored it and found it to be a cyst, and that the breast was, as a whole, similarly affected. The gland was consequently excised, and a good cure resulted, the patient at the present time, seven years after the operation, being well. The father of this patient was supposed to have died from abdominal cancer, but it was known that the paternal grandfather and three paternal aunts had died from the disease.

CASE 14. *Cyst in the breast with intra-cystic adenoid growth; cyst dissected out; a year later a cyst appeared in the opposite breast, which was explored and dissected out, although it did not contain any growth; patient well five years after.*—A married woman aged thirty-six years, childless, consulted me in 1888 for a lump in her right breast which I deemed to be a cyst. On exploring it the diagnosis was confirmed, but in the cyst there was a dendritic growth which, on examination, proved to be an adenoma. I dissected the cyst-growth out carefully and a recovery ensued. A year later a like tumour appeared in the opposite breast, which proved to be a serous cyst. This I explored and dissected out with a good result. The patient was well five years later.

The disappearance of cysts.—In the treatment of cysts of the breast, and particularly of such as have clear fluid for their contents, it should always be remembered that they may spontaneously disappear. In some instances of this kind the disappearance may be for good, but in a general way the cysts reappear after the lapse of a short or long period, either in their original simple form or as cysts which contain some new growth of a benign or cancerous nature. I have seen many cases of this kind, but the two following are typical.

CASE 14. *Cyst in the breast mistaken for new growth, which disappeared spontaneously.*—A woman about forty years of age consulted me for a tumour occupying an outstanding lobe of her right breast, which had been taken by one surgeon to be an adenoma and by a second as a carcinoma, but these views had been given some months before I saw her. On examination of the breast I found a tense elastic tumour in the gland, which I diagnosed as a cyst, and as the patient's general condition was bad I saw no occasion to lay the cyst open. Some months passed under treatment, tonics, &c., being administered, and as the general health improved the tumour diminished, so that in six months it had disappeared. Six months later the woman was still well.

The second case was as follows:—

CASE 15. *Cyst in the breast mistaken for carcinoma: recovery.*—A woman aged forty-eight years consulted me in December, 1893, for a lump in the centre of her right breast, which had been enlarging for months, and which had been pronounced to be a carcinoma. She was a married but childless woman, and was under the care of a physician for some simple uterine trouble. On a careful examination with the patient flat on her back fluctuation was to be detected in the tumour, which was about the size of a Tangerine orange. The patient was highly neurotic and complained of severe pain. Six months later the tumour was larger. For the uterine trouble she was sent abroad, and when she returned, six months later, the tumour was swollen. In another three months it had disappeared, the disappearance of the tumour with that of the uterine affection going on together. She has now been well for a year (August, 1895). This is the largest cyst in the breast which I have ever known to disappear entirely; whether it will reappear, and, if so, in an uncomplicated form, is a point for future observation.

These cases are as interesting as they are instructive, but they are not so common as to justify the surgeon in delaying an exploratory or curative incision in cases which otherwise demand such treatment. Where the general condition of the patient is bad from any cause, procrastination may be practised, and the possibility of a disappearance of the tumour put forward as an encouragement to the patient. I should like to point out as a lesson to be learnt from the first case quoted, that to the surgeon who diagnosed the presence of an adeno-sarcoma instead of cyst, the disappearance of the cyst would have been regarded as a disappearance of the tumour, and I am disposed to believe that all cases of reputed disappearance of these solid tumours are to be regarded as examples of mistaken diagnosis. I have never known a solid tumour of this kind to disappear. To the surgeon who regarded the case as one of cancer I need not say that the disappearance of the growth under whatever local or general treatment he adopted would have helped him as a cancer curer; to some who use electricity, plasters, or faith, such a case of cure would have been invaluable.

Reappearance of cysts after their disappearance.—I should also like to add that if these cysts may disappear they are equally liable to reappear, and when they do so they seem to be liable to reappear, not as simple cysts, but as cysts with intra-cystic growths. This fact is an important one, and tends forcibly to support the practice I have desired to recommend—namely, the early exploration of the cyst with the view to its cure. The two following cases illustrate the points I have brought forward.

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CASE 16. *Reappearance of a cyst six years after its disappearance; cure of cyst by incision; local application of iodine solution and plugging.*—A single woman aged thirty-nine years came to me in 1892 with a tumour in her breast which was believed to be carcinomatous. It had been steadily enlarging for two years, but as it occupied the same position as a "lump" which had existed in the breast six years previously, and had, after some months' treatment, disappeared, it was natural for the patient to hope that the same result would again occur. When I saw her the tumour was the size of a large egg, very hard, and deeply situated and elastic, if not fluctuant, with the patient placed in the horizontal posture. I explored the tumour, and finding it to be a cyst sponged it out with a solution of iodine, plugged it, and let it heal by granulation. This patient was well three years later.

CASE 17. *Cyst in the breast followed by its disappearance, and reappearance thirty years later with intracystic growths; operation refused.*—A married woman aged sixty-three years consulted me for a tumour which had been gradually growing for two years in one of her breasts and was then the size of a large egg. The skin over the tumour was somewhat fixed to it and slightly red. The nipple was retracted, but this had always been the case. In the course of three weeks the tumour burst, and a week later a sprouting growth projected from its interior which looked sarcomatous. The patient refused operation. It seemed that in this case thirty years before a lump had existed in the position of the present tumour, and under six months' treatment disappeared to reappear many years later in the form described.

I would here draw attention to the fact that only three of the last sixteen cases which I have quoted occurred in women under forty years of age, that seven were found in women between forty and fifty years of age, and six in women over fifty, two of these being sixty-three years of age. It is tolerably clear, therefore, from these facts that no argument can be drawn from age as to the probabilities of a tumour being cystic or otherwise, for such cysts appear in women during what is usually regarded as the cancerous period of life.

GROUP III.

The third group of difficult cases now claims attention, and in it will be included cases in which the breast gland appears to be either generally or in one or more of its lobes harder than natural, coarse, or knotty, the knots varying in size from small to large peas or nuts. In some of these cases, but not in all, there will be a discharge from the nipple of either a clear or blood-stained fluid, or some pultaceous, cheesy material, and this may be increased in a majority of instances by pressure on the gland. Occasionally this affection is complicated with some enlargement of the axillary lymphatic glands. These cases are mostly found in women who have passed the period of, or who have long given up, child-bearing, and the condition is in a measure physiological, for it is one of involution of the gland associated with some cystic degeneration of the ducts and acini. In a general way it is not to be regarded with apprehension, although in exceptional instances the condition lights up and becomes pathological by some of the cysts enlarging and forming tumours of either a simple cystic nature or becoming the seat of intra-cystic growths, papillomatous, sarcomatous, or carcinomatous. Such cases as these ought to be watched, for in all of them there is a spurious activity in the gland tissue, and if there happens to exist any special tendency in their owners to develop a new growth of any kind this spurious activity may show itself in some pathological direction. In the bulk of cases soothing applications are of the most value. In others that retain their activity excision is to be advised. In connexion with this group of cases Case 12, as reported, may be read again with advantage with the following examples.

CASE 18. *Cystic disease of the breast with intra-cystic growths; excision of the gland; recovery.*—A married woman aged forty years, the mother of two children, both of whom she suckled, consulted me for a tumour the size of an egg which had been slowly growing for nine months. There was no discharge from the nipple. The whole gland was coarse and knotty, and the tumour was situated in the axillary half. I regarded it as one of cystic disease from its elasticity, and it was believed that the whole gland was more or less involved. I cut into the tumour and found it to be a cyst containing papillomatous growths, and made out that the whole gland was similarly affected. I consequently excised the gland and a good recovery ensued.

CASE 19. *Cystic disease of the breast with intra-cystic papillomatous growths; excision of gland.*—A married woman aged sixty years consulted me in 1888 for a tumour the size of an egg, occupying the axillary half of the left breast, which had been growing for about six months. It was elongated in shape, hard, and elastic, and I regarded it as a cyst, but the whole gland felt coarse and knotty. At times there had been some discharge from the nipple, which was blood-stained. Later I explored the growth and found it to be of a cystic nature, with intra-cystic growths, which Mr. J. H. Targett, the pathologist of the Royal College of Surgeons of England, described as not containing any definite malignant tissue. The larger tubes of the breast were in all stages of dilatation, and in some of these tubes the same growths were present. A good recovery followed. This patient was well six years subsequently.

CASE 20. *Cystic disease of the breast with retracted nipple simulating carcinoma; removal of gland.*—A married woman aged fifty-three years, the mother of ten children, consulted me in August, 1895, for a tumour in her right breast which had been growing for nine months, although her husband maintained that a lump the size of a nut had existed near the nipple for at least twenty years. She had had with her first child an abscess in the breast, which was opened in the axillary lobe. The nipple had been retracting for six months. When the patient was seen it was quite inverted. The breast was lumpy beneath the nipple as if from cysts; its axillary lobe was also thick. No large glands were in the axilla. On exploration being undertaken on Aug. 10th the tumour was found to be cystic. The cysts were full of thick cream-like paste. Excision was performed and a rapid cure followed. Mr. Targett reported to me on the specimen as follows: "The breast shows a number of small retention cysts besides the one which you incised. Some of them are quite close to the nipple, and they all contain the same honey-like material. Indeed, in handling the specimen before making any cut I expressed a quantity of this material from the nipple. On section it was seen that this came from dilated ducts, particularly those ampullæ below the nipple. The breast tissue itself, where hard, is due to the presence of these small tense cysts."

In these three groups of cases to which attention has been drawn I believe the surgeon will be able to find a place for most, if not all, the doubtful and difficult cases which he must meet with; and if he will carry to the bed-side as a rule of practice the thoughts and methods of investigation to which I have directed attention, I feel sure that his difficulties, which have been my difficulties, will be found to lessen, if not to disappear. At any rate, of this I am fairly sure, that he will be able in most cases to form a working diagnosis upon which he will be justified in deciding upon and carrying out a line of treatment which must conduce to his patient's advantage and to his own credit.

THE TREATMENT OF SEVERE MASTOID DISEASE BY IMPLANTATION OF SKIN FLAPS.

BY A. MARMADUKE SHEILD, M.B. CAMB., F.R.C.S. ENG.,
ASSISTANT SURGEON TO ST. GEORGE'S HOSPITAL.

THERE are few cases which are more troublesome to manage in practice than those of inveterate disease of the mastoid bone. There can be no doubt that many instances of bad mastoid necrosis are tuberculous, and in the last few years much has been written and said about their treatment. Among those who have especially increased our knowledge regarding the radical treatment of extensive mastoid necrosis Professor McEwen of Glasgow takes the leading part, and I may at once state that the idea of implanting flaps of skin into the cavities left after removal of the diseased portions was derived from his expression "papering the cavities with skin," and partly from observing the remarkable manner in which the integument grows down over and fills up carious cavities in the long bones after sequestra are removed. In each of the following three cases it will be observed—(1) that they were instances of chronic and inveterate disease; (2) that operations had previously been performed

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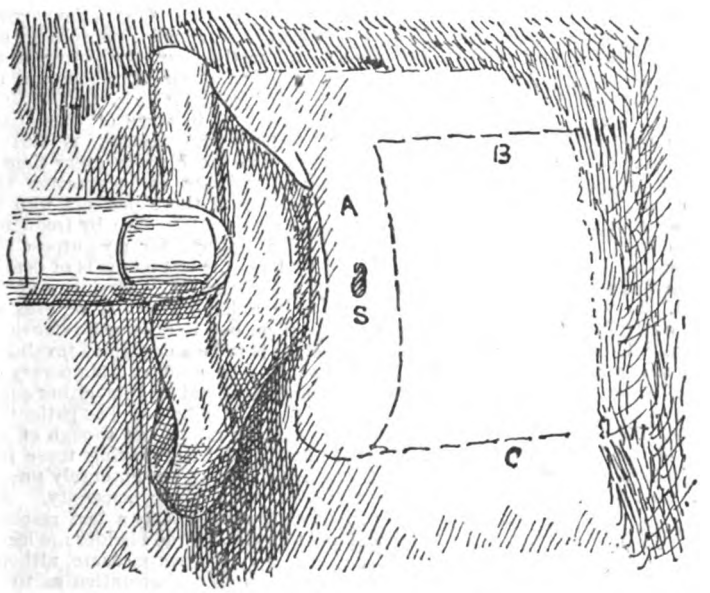
for their relief which were ineffectual; and (3) that after the operation now to be described such great improvement took place that it approached as near to definite cure as could from the nature of things be expected. The details of the procedure, briefly stated, are as follows. The mastoid region being rigorously cleaned and purified, a flap of integument, thick and fleshy, is raised from behind the auricle. The flap should include the orifice of any sinus (S) and be left attached by its stalk (A). The auricle is detached forwards and the soft parts over the mastoid are turned backwards by horizontal incisions B and C. The diagram, kindly drawn by Mr. Ward, makes this clear. The lining membrane of the canal is separated from the bone. A trephine of half an inch diameter is applied immediately behind the canal, or if a sinus exists this is enlarged with gouge and mallet. The diseased bone is very freely removed and all caseating material scraped away. Any overhanging edges are removed with a chisel. Finally, the posterior wall of the bony canal, which separates it from the cavity just made, must be cut away with bone forceps. Any granulations are curetted from the tympanum, and it should be the aim of the operator to convert the tympanum and mastoid cavity into a common



chasm. Pure carbolic acid is next applied upon a small mop to any suspicious-looking bone. As regards the removal of osseous tissue, in the first two cases I used chisels and gouges, and in the last a strong burr which cut away the bone with remarkable ease. In the last two cases the mastoid was of the "pneumatic" variety, and consequently a large cavity containing caseating material and carious bone was readily reached and evacuated. In the first case the whole bone was sclerosed, and the operation far more difficult. The flap of skin is pressed down into the cavity and packed superficially with iodoform gauze. In my first two cases I united the margins of the tunnel over the implanted flap, leaving merely an aperture for the gauze to be withdrawn and the pedicle of the flap to emerge. In the last case I left the tunnel entirely open, and I believe that the latter plan is far the best. The discharge can be readily washed away and there is no chance for its reaccumulation. Condensed notes of the cases are now related.

CASE 1.—A youth aged nineteen years came under my care on Jan. 25th, 1895. He gave the familiar history. "All his life" he had suffered from profuse discharge from the left ear, with pain and headache, general discomfort, and chronic misery. Five years ago he underwent a prolonged course of treatment at the hands of several aural surgeons, but with no material benefit. Two years ago he bathed in the sea, and this was followed by severe headache, sickness, and other dangerous symptoms. Ten months ago he had a similar attack after simple syringing, and this was associated with "abscess behind the ear." The patient looked ill and worn; he was stone-deaf, even to the tuning fork, and the whole drum was destroyed, the inner wall of the tympanum being bare and covered by granulations. There was a profuse fœtid discharge, and ill-defined tenderness over the mastoid was elicited on deep pressure. Some ordinary treatment was adopted for a time, but on July 9th he was so ill with severe pain in the head, giddiness, and sickness that it became obvious something must be done for his relief. His temperature, taken on several occasions, was over 102° F. On July 15th the operation was performed. Dr. Hewitt administered ether; Mr. Ward assisted. A tongue-shaped flap was raised from behind the auricle, and the ear, with the lining membrane of the canal, turned forwards. The soft parts over the mastoid were pulled backwards. Pressure forceps were applied to large bleeding vessels in the scalp. The bone was now cut away with a mallet and strong chisels. It was of ivory hardness and broke the edges of several instruments during the performance of the operation. The mastoid was removed to the depth of half an inch, but no distinct antrum was reached. The bone was softer, however, and infiltrated with purulent material. The posterior wall of the canal was cut away and the tympanum curetted thoroughly. Pure carbolic acid was applied, and when the oozing had ceased the tongue-shaped flap was laid down and packed *in situ* by strips of iodoform gauze introduced through the canal. The incisions behind the ear were united with horsehair. To economise valuable space I will only state that the after-progress of the case was quite satisfactory. Rapid healing occurred, with great diminution of pain and fever. For some weeks after operation the parts were well syringed daily, and gradually the discharge lessened until when the patient left England it had nearly ceased. I last saw him on Sept. 11th. He was remarkably well and cheerful. The parts behind the ear had healed. The raw tympanic surface was almost covered with integument, but an area the size of a split shot was still bare and discharging. Complete cure had not been produced, but the improvement and diminution of discharge were very gratifying and enabled the patient to easily keep the ear clean and comfortable.

CASE 2.—A wan, emaciated little girl aged seven years was admitted into St. George's Hospital on Aug. 14th, 1895. She came under my care in the absence of Mr. Haward. The child had been an in-patient previously in May and the mastoid had been then operated upon, but since she left sinuses had continued to discharge persistently. There was a history on readmission of persistent otorrhœa in infancy. The child looked remarkably pale and weak. There was a sinus discharging pus behind the auricle, and burrowing of pus under the soft tissues round it. There was but little discharge from the meatus. On Aug. 31st, the parts being shaved and cleansed, the following operation was performed. A long tongue-shaped flap of skin was raised from behind the ear, the diseased mastoid was then exposed, the sinuses enlarged with the gouge, and the mastoid antrum freely opened and cleared out. Pure carbolic acid was applied. The bleeding being checked, the flap of skin was laid into the cavity and pressed down deeply; the margins of the incisions were united by horsehair so that the flap was covered over, its pedicle emerging superiorly. The child remained in the hospital until Oct. 12th, the wounds being carefully dressed. By this time the parts had soundly healed and the child had much improved. This patient was last seen on Nov. 30th. The mastoid region remained perfectly sound. There was occasional slight serous discharge, easily kept down by daily syringing, and the inner wall of the tympanum was exposed, bare and dry. No integument could be seen in this situation. The child had improved in strength and appearance to a remarkable degree, and there was every indication of healing being sound and permanent.

CASE 3.—This was a case of old mastoid disease operated on by skin implantation, great improvement taking place. A pale, emaciated young man aged twenty years was admitted into St. George's Hospital on Nov. 7th, 1895, and, as he had previously been under my care, was kindly transferred to me by Mr. Bennett. His previous history was, briefly, as follows. For ten years he had suffered from attacks of

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severe pain in the mastoid and twice had "operation performed." Perforative otorrhœa had existed in the left side as long as he could remember. In 1894 the mastoid antrum was freely opened and curetted, which gave temporary relief to pain, but a sinus had existed ever since. All hearing was absent, even through the bones, and the tympanic membrane was quite destroyed. He had attended the aural departments of various hospitals and had undergone three operations. This patient came of a tuberculous stock and had twice suffered from hæmoptysis. On admission on Nov. 7th he had the familiar symptoms of mastoid disease—severe pain, fever, and the auricle pushed away from the head by a heavy, red, and exquisitely tender swelling. On Nov. 11th the operation above described was performed. The bone was very freely removed, and a large cavity was exposed full of "cheesy" detritus. With sharp spoons and a burr the walls of this were removed, and the posterior wall of the canal was cut away with pliers, so that there was free communication between the tympanic cavity and the mastoid cavity. The dura mater was exposed at one spot. Hæmorrhage was very free, and hot syringing was constantly employed. A large tongue-shaped flap was laid down into the cavity and packed over with iodoform gauze. There was no attempt made to unite the margins of the incisions. This patient was discharged on Dec. 30th. His recovery was progressive and uneventful. The treatment adopted was merely strict cleanliness, and the raw surface left by raising the implanted flap was covered by grafts of skin on two occasions. His present condition (Jan. 22nd, 1896) is as follows:—The mastoid region has soundly healed and he has lost all pain and discomfort. His general health and condition have greatly improved. There is no discharge from the canal, and integument can be seen through the speculum as though the inner wall of the tympanum were going to be covered.

I must confess that in these three cases it was a disappointment to me that slight discharge from the meatus was still present or to be expected from the canal. It was serous, however, and free from odour, and readily controlled by the use of the syringe. In all cases of severe middle-ear disease I have always suspected that foci of caries may exist in the inner wall or roof of the tympanum, and the danger of using cutting instruments in these localities makes the problem of certain eradication of all disease a very difficult one to solve. I feel certain, however, that the method of forming a large gap behind the ear and pressing a skin flap down into it is a very valuable one and well worthy of attention in these desperate cases.

Cavendish-place, W.

SOME OF THE RECENT RESULTS OF ORCHOTOMY FOR ENLARGED PROSTATE.[1]

BY C. MANSELL MOULLIN, M.D. OXON., F.R.C.S. ENG.,
SURGEON TO THE LONDON HOSPITAL; EXAMINER IN SURGERY AT THE UNIVERSITY OF OXFORD.

I HAVE ventured to bring the subject of the treatment of enlargement of the prostate by castration, or, as I prefer to call it, by orchotomy, before this society, because, although it is now nearly three years since the operation was first performed with this object by Ramm of Christiania, and a large number of cases have been recorded in England and elsewhere, it has not been received with any marked degree of favour. This may be accounted for in part by the fact that it is an altogether new departure in surgery, and in part by the existence of a prejudice against it that cannot be regarded as unnatural. For there can be no question either of the severity of the sufferings of many of those who in their later years are the subjects of this enlargement or of the inadequate results of the ordinary methods of treatment. It is perfectly true that many old men escape altogether, and that many more lead an existence of more or less comfort by passing catheters at regular intervals and washing out the bladder; but it is equally true that there is no inconsiderable number of men, in all other respects, perhaps, perfectly healthy, whose lives are rendered one prolonged torture, and who at last are killed partly by the inflammation of the kidney that so often complicates these cases and partly by septic absorption from the walls of an inflamed and ulcerating bladder. That such cases do exist, and exist in considerable numbers, although the proportion that they bear to the total may not be very high, and that they exist in spite of every care that is taken in the selection and use of catheters, is notorious to everyone. And that they always will exist, so long as catheterisation is looked upon as the routine method of treatment for all cases alike cannot be denied. Some men are able to make use of catheters for years, taking absolutely no precautions, without ever getting cystitis. Others begin well, and for a time enjoy a certain degree of comfort. Then in a little while the muscular power of the bladder begins to fail; the residual urine increases in amount; organisms which abound in the urethra are carried in by the catheter; cystitis sets in, and the urine becomes ammoniacal. Perhaps by dint of great care and at the cost of a serious illness this is overcome and the inflammation checked; but even after the first attack the bladder never quite recovers. Permanent injury has been inflicted by the septic inflammation both upon the mucous membrane and the muscular coat; and sooner or later, if the same line of treatment is persisted in, relapse is certain. With each of these relapses the patient grows weaker and recovery less perfect. Finally, phosphatic calculi form, or pyelitis sets in, or the excretory power of the kidney becomes impaired, and what Sir H. Thompson has called "death by slow torture" follows.

I do not intend to discuss why in some of these cases catheterism is such a failure—the urethra is full of germs, and these are swept into the bladder every time an instrument is passed—or to estimate the proportion that these cases bear to the number of those patients who are enabled to live in a state of comparative ease by frequently making use of catheters. It is enough for my purpose that there are such cases, and that the present methods of dealing with them are distinctly unsatisfactory. Drainage of the bladder, for instance, is only a palliative. It relieves the results that follow catheterism, but it does not remove the cause; and unless the patient is to be a confirmed invalid for the rest of his life it can only be used as a temporary expedient. The formation of an artificial urethra, either suprapubes or in the perineum, is very little better. The patient has to wear a portable urinal day and night, and though of late much ingenuity has been displayed in improving these it is idle to contend that they are anything but intensely uncomfortable and only tolerated from sheer necessity. And prostatectomy, performed as it usually is as a last resource, when the urine is foul and the walls of the bladder are loaded with septic organisms, is a very serious measure, although the mortality is due not so much to the operation as to the operation being done when it is too late. Orchotomy, on the other hand, although it has objections of its own, is nearly free from these. The mortality, taking into consideration the age and the class of patient in which it has hitherto been performed, is low, and probably, as a better selection is made, will become lower still. The reduction in the size of the prostate that follows is permanent. In many cases the gland completely disappears, stroma as well as glandular tissue, and nothing is left but a little fibrous nodule. As a result the route from the bladder becomes patent again. The post-prostatic pouch disappears. The bladder is able to empty itself thoroughly. No urine is left behind to act as a nutrient medium for bacilli. The acid reaction returns and the cystitis ceases.

These are the conclusions at which I have arrived from my own experience. In speaking of them I intend to rely, indeed, I am compelled to rely, upon the cases, twelve in all, in which I have been consulted or on which I have operated myself. A very large number have been recorded from time to time in the journals, it is true; but in so many of them either the result has been published at once without waiting to ascertain the final state of the patient, or the most essential details have been omitted that it is impossible to make use of them without selection, and selection is never advisable. Dr. Faulds of Glasgow, for example, has published a series of seven cases with six deaths—a mortality which, if it were general, would at once condemn the operation. But although allusion has been frequently made to them by myself and other writers, I have not been able to find anywhere a full or satisfactory account. Some of them, it is said, had already been relieved by perineal section; but though it is rather a material point Dr. Faulds has not told us which or how many. The age is only given in two.

[1] A paper read before the Harveian Society on Feb. 6th, 1896.

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There is no mention of the state of the kidneys or of that of the arteries, and scarcely any of the general condition of the patients at the time of operation. Professor White of Philadelphia, again, has published a statistical table of all the cases (111 in number) of castration for hypertrophy of the prostate that he could collect. The American cases that he quotes are doubtless correct, although the details of some of them are so poor that it is not possible to judge; but certainly several of the English cases that he quotes and counts were not cases of enlargement of the prostate at all. In some the condition of the prostate prior to operation is not stated, the operation being performed for a totally different affection. In others the prostate was the seat of chronic inflammation, a condition which for every reason it is absolutely necessary to distinguish from true enlargement.

First as regards mortality. Of the twelve cases two died shortly after the operation, and they were both under my care. One was an enormously stout man who died from heart failure on the ninth day, after having recovered from one or two previous attacks. This case I have already published in the Transactions of the Clinical Society. The other died on the fifth day after the operation from hemiplegia due to rupture of the left middle cerebral artery or of one of its large branches. Two others, I know, have also died six months after the operation, one at the age of eighty-two years (the first case operated upon in England), and the other at the age of eighty years. That they would have died much sooner had the operation not been performed is, I think, beyond question. Two others, however, very nearly died, not from the immediate shock of the operation (this can usually be prevented by giving beforehand a hypodermic injection of strychnia and digitalin), but from a peculiar form of traumatic delirium that set in a day or two after and caused the gravest anxiety. It was not due to any septic complication—for the wounds healed by the first intention—or to uræmia. There were no local symptoms and but little fever, merely intense depression with delirium. Fortunately they both recovered, but as somewhat similar symptoms have been noted in other cases, and as in several what has been described as acute mania has followed there can be no doubt that the disturbance is dependent upon the operation, and that the chance of its occurring must be carefully weighed before the operation is proposed. That this complication does not arise from the loss of any specific power of the testicle, or of any substance formed by the testicle, and discharged into the circulation, after the fashion of an internal secretion, is shown by the fact that in two of the recorded cases it followed removal of one testicle only,[2] and that it is of the rarest occurrence, when this operation is performed upon younger men, in whom the testicles are certainly functional. I have removed one testicle over twenty times myself, and both upon two occasions for complaints such as tubercle, syphilis, and malignant disease without the least cause for anxiety. There is therefore no indication for treating these symptoms when they do occur by the injection of testiculin or orchitic extract, although in one instance in which it was tried[3] it was followed by benefit. Similar symptoms, sometimes of a temporary character, but sometimes ending in permanent mental aberration, have been recorded after other operations in the same class of patient—they have even been known to follow the administration of an anæsthetic, and they do not present any material difference from what is commonly known as traumatic delirium. I admit that they appear to occur more frequently after this operation than after others, but I do not see that that is any reason why they should be separated and placed in a class by themselves. It would be of great interest to ascertain what was the mental condition of these patients prior to operation, and to find out whether they presented beforehand any signs of that peculiar mental degeneration, often associated with libidinous desires, that is not uncommon in old men with enlarged prostates, but I have not been able to collect any information with regard to this point.

In all my cases, even in that of the patient who died upon the fifth day after the operation, there was a diminution in the obstruction. I admit that the evidence in support of this is almost entirely clinical. In the one case, that of the patient who died upon the ninth day, in which I obtained a post-mortem examination the peculiarly wrinkled condition of the mucous membrane that covered the vesical surface of the upgrowth and the flattened shape of a protruding boss were sufficient to show that there had been a reduction in size; but when the tissue of the gland was examined under the microscope there was no evidence of atrophy. Others have met with different results. Griffiths, for example,[4] in a case that died eighteen days after operation found that the columnar cells lining the tubules, after undergoing proliferation, had become fatty and had disappeared; that the tubules themselves had contracted; and that there had been proliferation of the connective tissue and muscular fibres in the stroma, many of the new cells being swollen and filled with granules of fat. And White[5] has recorded another in which microscopic changes of the most definite character were described, although the patient died on the evening of the second day at a time when they could hardly have been expected. But the evidence is so clear that, although it is clinical only, I am quite content with it. In some cases, including the two that proved fatal, improvement in micturition was noted within a few hours. In all but one it was definite within a week. A catheter, when it was tried, passed into the bladder more easily than it did before. The prostatic urethra was shortened. There was a considerable reduction in the size of the mass as felt through the rectum, and there was a decided cessation in the burning pain at the neck of the bladder and in the frequency of micturition. In some the enlargement disappeared so completely that the shaft of the catheter could be felt by the finger in the bowel for its whole length.

The undoubted improvement that took place in these cases cannot be accounted for by rest in bed or the other palliative measures that were continued at the same time. I am aware that great benefit is often experienced by patients with prostatic enlargement when, after an attack of acute congestion, they are kept in bed for a time and treated in the ordinary way with catheters. But this is entirely beside the point, for whenever it was possible a thorough trial had been given to this plan first before anything else was done. The difference in the rate of progress before and after orchotomy was most conspicuous. In two cases in particular a great deal more improvement took place in the first twenty-four hours after the operation than had taken place in the previous fortnight under palliative treatment. That some of the benefit experienced, especially during the first few days, was the result of vascular changes I have no doubt. Congestion is so common in enlargement of the prostate that it is exceptional to find the prostatic plexus of an old man who has died from this complaint without evidence of past thrombosis in the shape of chains of phleboliths; and orchotomy undoubtedly tends to prevent congestion, partly by removing the sexual organs, which are one of the chief exciting causes, and partly by reducing the size of the prostate. For, as the obstruction at the neck of the bladder diminishes in size, so does the necessity for the straining that fills to overflowing the valveless prostatic plexus. But though I am willing to admit as much as this, I do not believe for one instant that the cessation of congestion will account for more than a very small part of the improvement that followed. The reduction in size, as measured both by the rectum and the urethra, was far too great. There was one exception to this. In one case under the care of Dr. Mabyn Read of Worcester no appreciable difference was found in the size of the gland when it was measured by the finger in the rectum. But as within a month of the operation it became easy to pass a Jacques catheter, whereas before only a silver or a bicoudée one could be used, and that with difficulty, and as the strangury entirely disappeared and the condition of the patient became infinitely more comfortable, I do not think the case can be regarded as a failure. The patient was eighty years of age and failing fast. In such rapid tissue changes, especially in the direction of absorption, are not likely to occur. According to Professor White rapid atrophy is recorded as having followed in 87 per cent. of the cases. That there is a small minority, therefore, in whom it does not occur is very likely, especially as there are one or two cases on record in which atrophy of the normal prostate has not taken place for some years after castration. But when due allowance has been made for the age of some of these patients, and the consequent slowness

[2] Faulds: Brit. Med. Jour., May 4th, 1895.
[3] Cabot: American Association of Genito-Urinary Surgeons, May, 1895.
[4] Brit. Med. Jour., March 16th, 1895.
[5] Annals of Surgery, July, 1895.

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of the tissue changes in them—for the fact that many of these cases have been published prematurely, and that in none of them is the nature of the enlargement recorded (in one at least it seems to have been malignant)—I think it may fairly be argued that the minority, small as it is, is much larger than it will be in the future.

In all but one case voluntary power of micturition was regained and the residual urine fell below two ounces. This was better than I had anticipated. It cannot, of course, be expected that removal of an obstruction is capable of regenerating muscular fibres that have been destroyed. It is well known that over-distension, the use of catheters, and long-continued inflammation can, each of them by itself, ruin the muscular power of the bladder, even in young men, so that it never recovers. It is not a matter for surprise, therefore, that such an event should occur in patients advanced in life when all these causes have been acting together upon the bladder for years past. The operation, however, is not to be blamed for the failure; that must be laid to the credit of the previous treatment which has allowed such a condition of things to come to pass and has encouraged it. The inflammation of the bladder, which was kept up by the obstruction at the neck, disappeared spontaneously in all but one. In this case the disease had lasted such a length of time that the walls of the bladder were covered with sacculi which could not be kept empty. In those in which the urine had been ammoniacal for some time, and in which the walls of the bladder were coated with a mixture of pus and triple phosphates, it was very interesting to watch the gradual disintegration and spontaneous discharge of the deposit as the urine regained its normal reaction. In some instances the masses that came away were of such a size as to cause a considerable amount of pain and inconvenience during their descent down the urethra. In the case of the patient who died upon the ninth day a calculus the presence of which had not been suspected during life, although the patient had been sounded by myself on several occasions and also by other surgeons, was found behind the middle lobe of the prostate. It had lain there in all probability for many years as it was of considerable size; and though it did not cause the patient so much pain as a movable calculus would have done there can be no doubt that it added very considerably to his misery, and that had he lived, and had the treatment by catheter been continued, he would never have experienced any real relief. As I have met with several instances of a very similar character—calculi lying unsuspected behind an enlarged prostate—I always make a practice of specially examining for them in all cases in which the symptoms are either severe or of long duration. I am convinced that they are much more common in these cases than is usually believed.

There are two other points to which I wish to allude very briefly. Eighteen months ago I suggested to Professor Clarke of Glasgow the possibility that in some cases of enlargement of the prostate adequate relief might be obtained by the removal of one testis only. I have published elsewhere a case in which a large median outgrowth occurred in a man who had had one of his testicles destroyed shortly after birth, so that removal of one testicle will not prevent enlargement of the middle lobe at least. But where the enlargement does not involve the median portion, where the obstruction is caused simply by the enormous size of the lateral lobes (and such cases do occur and can be diagnosed beforehand), I suggested that unilateral orchotomy might suffice. Since then Mr. Manning of Salisbury has sent me full particulars of a case in which this method was adopted with perfect success. "In a few days the urine was passed in a fuller stream and the bladder seemed to regain its tone and empty itself. Before the operation the gland could be felt in the rectum as large as a small orange. One month after, if digital examination can be trusted, the right lobe was still enlarged, but not nearly to the same extent as before, but the left seemed to be of normal size; urine passed freely and was of a healthy character." Two months after: "The patient is stronger than he has been for years, and there is no urinary trouble of any sort or kind." One or two equally successful cases have been recorded in America (and a good many failures); but this is, I believe, the first that has succeeded in England. I should feel strongly disposed to advocate this in preference to the bilateral operation, or as a preliminary to it in case removal of one testis alone does not succeed, in all cases in which this condition is diagnosed beforehand.

The other point to which I wish to allude is the possibility of substituting for orchotomy double ligature and section of the vasa deferentia. If it could be shown that this answers as well, probably patients would agree to it more willingly, and certainly the operation would not entail so much risk. The evidence upon this point is rather conflicting, and an additional amount of confusion has been imported into the question by the fact that the influence of section of the vasa deferentia upon the prostate has not been clearly distinguished from that which it has upon the testes. The latter sometimes atrophy and sometimes they do not; the former appears to do so always, but to an extent that varies. Pavone[6] and White[7] have shown that this is the case with animals, and according to Pavone the involution of the gland is most marked in the central part; and a sufficient number of operations have been performed upon men to make the experiment (for such, of course, it is) justifiable. Mr. Reginald Harrison[8] was the first to divide the vasa deferentia in a case of enlarged prostate as a compromise, the patient wishing to be castrated. Six or seven years later he was alive and well. Tilden Brown[9] ligatured both vasa deferentia under cocaine in a man seventy-two years of age with decided benefit, although at the time of reporting there were still three ounces of residual urine. Guyon[10] has operated twice, and Lequen once, with a certain amount of improvement, the testicles remaining normal and the prostate diminishing a little in size, and Isnardi has also operated twice. In the first case[11] the prostate almost disappeared and the bladder became so tolerant that the patient could rest at night for seven hours consecutively. In the second[12] the result was almost as good, although the operation was performed only on the right side. The left testicle was atrophied and the left side of the prostate not enlarged.

These cases are of course not sufficiently numerous to allow of a definite answer being given to the question, but it must be admitted that they are most encouraging. According to Guyon, section of the vasa deferentia is not such a radical measure as orchotomy, and is chiefly indicated in that class of case in which what he calls "la prostatisme" is the most prominent feature.

Wimpole-street, W.

THE EYE AS A JOINT.

BY E. STANMORE BISHOP, F.R.C.S. ENG.,
HONORARY SURGEON TO THE ANCOATS HOSPITAL.

ALTHOUGH the pendulum of fashion in treatment of synovitis inclines now mainly towards absolute rest as a *sine quâ non* in such cases, no one can see much of general practice without recognising that to the main bulk of general practitioners the whole subject is a hazy one, the outlines of which are misty and undefined. Under the force of Hilton's teaching the profession for a long while preached rest; but it was a rest which was in nine times out of ten ill applied, and combined—fatally combined—with pressure over the inflamed area. Limbs were encased entirely in rigid plaster-of-Paris dressings, or fixed to a board by bands which were carefully applied just where pressure could do the most harm. Moreover, the joints were often fixed at a bad angle, so that bad results often followed, which were wrongly attributed in the majority of instances to the undue duration of the rest. Then came the period when certain bone-setters totally upset the faith that was in the surgeon by a few cases—trumpeted until they became multiplied indefinitely in his mind—in which judicious, or sometimes lucky, movements succeeded in loosening a joint which was on the point of loosening itself (for a great point in all these cases was that they had previously consulted all the faculty); and once more to many of the profession joint inflammation and its sequelæ became mysteries, and their treatment a species of magic.

The correct instinct of the surgeon counselled him not to needlessly irritate a painful part, whilst the vague dread of leaving some highly important thing undone at some

[6] Il Policlinico, June 1st, 1895.
[7] Annals of Surgery, July, 1895, p. 45.
[8] Brit. Med. Jour., Sept. 23rd, 1893.
[9] New York Medical Journal, Nov. 30th, 1895.
[10] French Surgical Congress, 1895.
[11] Centralblatt für Chirurgie, 1895, No. 28, p. 657.
[12] Gazzetta di Torino, 1895, No. 31.

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unknown critical moment harassed him with never-ending uneasiness. There were never wanting counsellors who impressed upon him the fact that another medical man had just lost a patient because, having kept a limb of the latter too long at rest, the joint had become stiff and the patient utterly dissatisfied, and that had it not been for the services of Mr. Blank, the eminent bone-setter, who cleverly broke down several adhesions, the use of the limb would have been entirely lost. Naturally the surgeon came to look upon adhesions within the joint as the rock upon which his treatment was bound to split, and, determining to be beforehand with Mr. Blank, decided to do the breaking down himself. But when should this be done? Clearly it must in any case be performed before the patient had disappeared; and so presently the surgeon, being doubtful of the exact condition present, the date of the wrenching began to depend more upon the appearance of any sign of impatience on the part of the sufferer than upon anything else. And now a strange thing was noticed. However early this wrenching might be done adhesions were always present. The surgeon felt them give, admiring spectators heard them crack, and after they had cracked, under chloroform, the joint moved easily in every direction. At first surgeon, patient, and friends congratulated themselves and each other on the skill displayed by the practitioner. But a stranger thing still forced itself upon their unwilling attention. When the patient recovered from the anæsthetic the joint was in nine cases out of ten stiffer than before and very painful. The pain was pooh-poohed — that would "soon wear off." The joint was now free and the joint must be kept so. There must be no more adhesions. Movements of various kinds, the carrying of weights, and persistent plucky attempts on the patient's part were absolute duties, and must be persisted in at all costs. When the joint did not improve, as it generally did not, this was evidence of reprehensible laziness and cowardice on the part of the patient, who evidently was not carrying out the orders of his surgeon, and who was sacrificing the whole future usefulness of his limb to a pitiful shrinking from slight pain. No sympathy could be felt for such a man, and if he had a stiff arm or leg for the rest of his life that was clearly his fault alone. Sometimes a miserable doubt assailed the surgeon: "Is it possible that I did not thoroughly break *all* the adhesions down? May not there possibly be one small one which was overlooked at the time, and which, though then so small as not to be detectable, has yet the power to spoil all my other work? Let us once more anæsthetise the man and see." And then, most marvellous of all, however short a time had elapsed since the last wrenching there were all the old adhesions back again, and they all had to be broken down again as if they had never been touched. Was it possible that such a crop should have grown to full height in so short a time? Evidently this man was a fraud; he could never have moved this joint at all; primary union must have taken place directly and within a week or two; the scar union was so tough as to require great force once more to separate it. Very, very occasionally a fear that perhaps after all this was not the right track to follow was felt, but it was speedily put out of court by a flaming report of another marvellous cure by Mr. Blank in some case which had been stiff for many months or years owing to the culpable misuse of rest by his previous attendants and their ignorance of the cabalistic movements practised by that marvellous gentleman. And then certain books appeared, written by well-known members of the medical profession, in which such movements were mentioned with laudation, certain general directions given as to how they were to be applied, and the use of rest was spoken of as undoubtedly advisable, with limitations, which limitations were very hazily indicated, until the unfortunate practitioner, who for his sins had been cursed with an inflamed joint to treat, was in a worse fog than ever, yet keenly conscious that he must do something, but as to what or how it was to be done he was utterly and miserably doubtful. How often must the wish have been expressed, "If only now I could look inside and see what is going on, see whether there really are adhesions, and where they are situated, how much clearer would be my idea of what I am doing and what remains for me to do." In this state of uncertainty has it ever occurred to anyone that nature herself has, as if purposely, left open one joint to inspection, so that not only can the surgeon see the normal state of it, but he can also see for himself the changes which take place during its inflammation, watch its various stages, examine and note their results, and—most important of all—see the effect of various modes of treatment, enabling him to apply the knowledge thus gained to the treatment of those joints which she has closed, and in which these same processes go on therefore unseen?

Such a joint is the eye. This is, if one thinks of it, a true ball-and-socket joint. The ball is modified certainly for a special purpose, but its cornea is, after all, only a translucent form of cartilage; its socket, the upper lid, contains also a layer of cartilage, and both are lined by a serous membrane in every respect comparable to the synovial membrane which lines every other movable joint in the body. In conjunctivitis, the synovitis of the eye, there is a visible process which can be watched. In the first or acute stage note the efforts nature makes to procure rest to the joint. Irritation in the conjunctiva sets up a tonic contraction of the orbicularis and other muscles which closes the eye. Do ophthalmic surgeons therefore dread the occurrence of adhesions between the ball and lid; or do they during this acute stage produce forcible movements of the ball upon its socket, or *vice versâ*, with a view to prevent these? Surely, in such cases the first and main object is rest in a darkened room so that as little friction as possible shall occur between the two; and anyone who violently wrenched the socket backwards and forwards over the eye because he feared the two might adhere would only precipitate the very occurrence he feared by denuding the surfaces of their softened epithelium, and leaving two raw surfaces, which then might unite. Rest above all other things is the *sine quâ non*. True, solutions of cocaine or atropine are often used, but with what purpose but that of increasing the physiological rest? The iris is dilated and thus kept in its most restful condition. Adhesions of it are feared if, left to itself, it is allowed to make the multitudinous contractions and dilatations of which it is capable under the influence of light and accommodation, but such adhesions are infinitely rare if the organ is kept immovable in the position of rest. And if this rest to the eye is thoroughly and completely carried out from the first the percentage of eyes which absolutely recover from a condition of simple conjunctivitis is almost cent. per cent. And if this is true of simple conjunctivitis and simple synovitis, is it not equally true of the rheumatic, gouty, gonorrhœal, and other varieties of the same condition? The prognosis of the ultimate result will be modified, and gravely modified, by every departure from the typical simple condition; but will the surgeon improve such prognosis by any deviation from the fundamental and essential treatment? Will a gonorrhœal conjunctivitis be improved by incessant rubbing of the inflamed surfaces together or by an intermittent forcible wrenching of the lids? In an ulcer of the cornea perforation may occur. Will this be rendered less likely to happen—indeed, will it not be more likely to precipitate its occurrence—by rubbing the lid violently over the ulcerated edges once a week or once a fortnight or by encouraging the patient to work his eye about so many times a day? Whilst in such graver conditions as exist in gouty, rheumatic, or gonorrhœal arthritis the prospects in any case of a return to the normal are less than they would be in simple synovitis, such prospects are given their best possible chance by absolute rest during the acute stage, and movement then can only intensify the pathological change present and decrease the likelihood of a satisfactory result. Why should the surgeon consider it a slight upon his professional skill if such a case recovers with a permanent disability? It is in the nature of things that this must be so. It is the disease which inevitably tends to produce certain lesions which are irremediable; but he must see to it that such lesions are only those which are inevitable, and not those intensified or produced by his own over-zealous but ill-instructed efforts.

When should this rest be given up? Not, surely, until the acute stage is absolutely past. What would be thought of the ophthalmic surgeon who rested such an eye for half this stage, and in the middle of it started to violently wrench the lid, the socket, up and down for fear of adhesions? He would bring back all the acute symptoms which were gradually dying away and indefinitely prolong the period of their existence. How does he know when conjunctivitis has ceased? Doubtless by the appearance of the conjunctiva. But is there no other symptom present in this which is also present in other joints and which he can utilise in his judgment of them? During the acute stage the lids are spasmodically closed, and if the surgeon wishes to open them for the purpose of introducing cocaine, &c.—which, be it noted, he does with the extremest gentleness—he finds himself opposed with all the force of the orbicularis. When inflammation has gone there is no

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such spasm. The difficulty then is to keep the eyes closed, and any, even the slightest, effort to open them is easily performed. During the acute stage of inflammation of any other joint there is encountered the same muscular contraction, and in the same way when all inflammation has disappeared from it the muscles which before were tonically contracted relax, and the difficulty is not to move the joint but by any means to keep it still. And it is by this sign, and by this sign alone, that the surgeon can be sure that it is safe now to use passive motion, if, indeed, in a joint which has suffered from simple synovitis and has been so treated passive motion is ever really required.

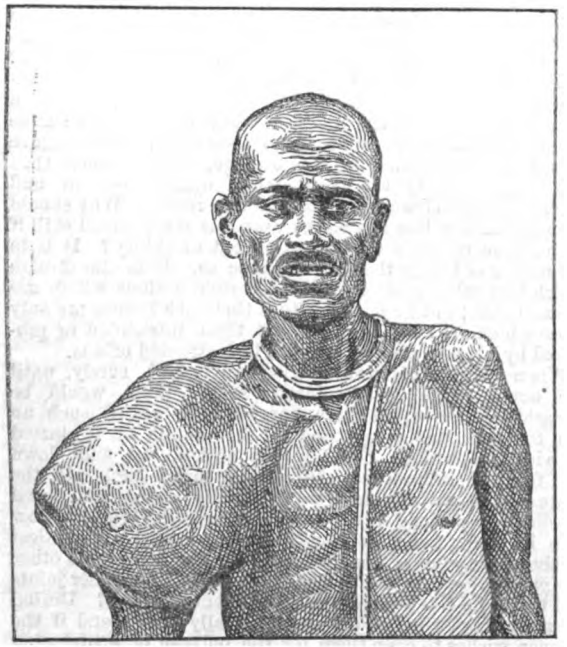
All treatment, then, of closed joints, as of the one open to observation, during the acute stage of simple inflammation should be directed towards the perfecting of nature's own remedy—that of rest. As he knows that of all the muscles around any joint, all of which are contracting in this way, the flexors will sooner or later obtain the advantage, the medical man arranges his apparatus so as to maintain an equilibrium and prevent any deformity which might arise by their excessive action. As he knows that muscles, though strong, are capable of becoming tired, and, especially when sleep overpowers the patient, of being momentarily relaxed, so permitting of slight movements in, and jars to, the inflamed surfaces, he assists their action by rigid appliances which shall supplement or, if necessary, be substitutes for them. But all this has been said, and said much better, by Hugh Owen Thomas and his successor, Mr. Robert Jones, to whose works, which are worth most careful study, I would refer all interested in this subject. My only object is to point out what I believe has not been previously noted—the presence before the surgeon's eyes of an open joint in which he may verify for himself the truth or otherwise of various doctrines with reference to the treatment of those other closed joints about which so much mystery has been made, and as to the exact condition of which so much doubt and paralysing uncertainty have existed, and still exist, in the minds of many surgeons.

Manchester.

CASE OF REMOVAL OF THE SCAPULA AND UPPER EXTREMITY FOR SARCOMA.

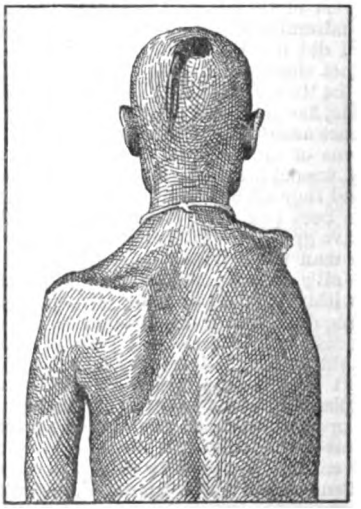
BY G. C. HALL, F.R.C.S.,
SURGEON-LIEUTENANT-COLONEL, INDIAN MEDICAL SERVICE, BENGAL.

THE patient, a beggar, had been wandering about the country carrying an enormous tumour the surface of which



was ulcerated in places, on which numerous flies found a feeding ground. He had been rejected as a hospital case by numerous dispensary assistant surgeons and others, and had determined to take his life by drowning himself in the River Jumna. I therefore thought that he should at least have the chance offered by surgical intervention, and I decided to try to remove the tumour. His physical condition was as bad as it could be. I chloroformed him carefully, and began by making a posterior skin flap, securing the vessels *en route*, and loosened the attachment of the scapula. I then attacked

the front and tied the subclavian artery and found that the tumour had no attachment to the thorax, as had been thought to be the case. I then disarticulated the clavicle from the scapula and removed the limb. He had no bad symptoms; he made a rapid recovery, and went to bathe in the Ganges and thank his special deity for favour vouchsafed to him, having his mind firmly made up that as I had removed his arm I would have to support him for the rest of his life. The gratitude of the Indian beggar is well known. The illustrations, which are from photographs, represent the condition of the patient before and after the operation.



Allahabad, India.

THE INFLUENCE OF INHERITANCE ON THE TENDENCY TO HAVE TWINS.

BY R. A. BREMNER, L.R.C.P. LOND., M.R.C.S. ENG.

IN continuation of the recent articles on the tendency to twin births[1] I send the following family history, which is vouched for by more than one of the relatives. I attended the mother of the last pair of twins, herself one of twins.

[1] THE LANCET, Nov. 2nd and 23rd, and Dec. 7th, 1895.

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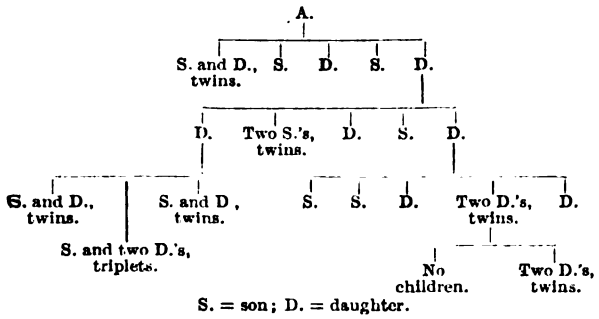
There is no history of twin births in any of the husbands' families that I can discover:—



S. = son; D. = daughter.

Some of the other members of the family have had children, but I have only marked those of multiple birth.

Exeter.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

REPAIR OF A DEFECT IN A STRICTURED URETHRA BY THE TRANSPLANTATION OF A PORTION OF A SHEEP'S URETHRA.

BY P. CLENNELL FENWICK, M.B., L.R.C.P. LOND., M.R.C.S. ENG.,

ASSISTANT MEDICAL OFFICER TO THE CHRISTCHURCH HOSPITAL, NEW ZEALAND.

I AM indebted to Dr. C. Nedwill for the courteous permission to operate upon this case and to publish the result.

A man aged forty years was admitted into Christchurch Hospital, New Zealand, suffering from severe cystitis and stricture of the urethra. The stricture was situated five inches and a half from the meatus. Several false passages were found and much difficulty was experienced in passing even a No. 1 catheter. External urethrotomy was decided upon and performed by Dr. C. Nedwill, visiting surgeon to the hospital. The tissues of the perineum were so rotten that the opening into the bladder could not be found. After a subsequent but futile attempt the bladder was opened by Cock's method, and a drainage tube introduced into the bladder. As there was evidently a serious loss of urethral tube between the posterior and the penile urethra I suggested, and obtained permission to carry out, the transplantation of a portion of a sheep's urethra into the gap, in the hope that the grafting might re-establish the continuity and that the missing portion of the membranous urethra might thus be supplied. A large cross-bred wether was prepared and chloroformed and the urethra was dissected out by Mr. Murray-Aynsley. A small portion of this was selected as the graft. In the meantime I prepared the patient as follows. The lower end of the penile urethra was defined at the junction of the sloughed and the healthy tube, gently separated from the matted tissues surrounding it and its edges were refreshed. The indurated perineal wound was then deepened so as to form a groove for the urethral graft to lie in. The face of the opening of the posterior urethra having been similarly prepared an elastic catheter was passed down the penile urethra and forced out of the perineal opening. The portion of the sheep's urethra which had been selected as the convenient graft was then slipped over the point of the catheter and brought up into the trench previously made in the perineal tissues. Finally, the point of the catheter was passed into the open end of the posterior urethra and pushed on into the bladder, a few stitches secured the graft in position and its ends into apposition with the front and back surfaces of the canal. A drainage-tube was inserted posteriorly, and the skin wound drawn together by suture. The wound healed, and the urethra appears to have become firmly established in its new position, the continuity of the urethra being perfect. The urine is passed naturally. It is of course too early to judge of the final result, but the present success makes one hopeful.

NITRO-GLYCERINE IN GALL-STONE COLIC.

BY G. LINDSAY TURNBULL, M.D.OXON.

THE patient, a married woman aged forty-eight years, called me in to attend her on July 6th last, and a note made at the time ran thus: "The patient complains of attacks of pain beginning in the right side of the abdomen just below the ribs in the nipple line, and passing round like a belt into the back. Two years ago she had a similar series of attacks which recurred for two or three weeks. These attacks have recurred at irregular intervals ever since, but have been very much worse during the last six weeks. Two years ago she says the pain used to begin in the left side of the abdomen, but latterly in the right side." The patient was of florid complexion and of stout build, and there was a distinct gouty family history, though she herself had never had an attack of gout. There was no jaundice at the time. The examination of the abdomen revealed nothing but slight tenderness about an inch below the ribs a little to the inner side of the right nipple line. There was no dulness on percussion here and no tumour could be felt. A provisional diagnosis of gall-stone colic was made and I ordered her to take a tabella of nitro-glycerine ($\frac{1}{100}$ gr.) if the pain recurred. At subsequent visits I learned that the tabellæ gave her relief in a few minutes, and she has never had an attack since, with one exception, which has not been relieved by one or two tabellæ. The exception occurred while she was on a visit to a town on the South Coast, three weeks ago, when she had a most violent attack in the night, accompanied by the vomiting of a quantity of bilious fluid described as one quart. On her return to town Dr. Lauder Brunton kindly saw her with me and confirmed the diagnosis of gall-stone colic. I am indebted to him for the information that he has not come across any record of cases in which nitro-glycerine has been used for the relief of biliary colic, and although its use for this purpose is mentioned in Martindale's "Extra-Pharmacopœia" and in Whitla's "Materia Medica," no references to cases are given in these works. The use of the drug in biliary colic is suggested by its known paralysing action on unstriped muscular tissue. Presumably it relaxes the spasm of the gall-bladder and ducts. Perhaps some of the cases of gastralgia that are relieved by the drug are really cases of biliary colic. I may mention that gall-stones have never been found in the evacuations in the above case, but I understand that there was slight jaundice after the attack while at the town referred to. When there is intolerance of morphia, nitro-glycerine should prove useful in these cases.

Ladbroke-grove, W.

THE ABORTIVE TREATMENT OF QUINSY.

BY R. HINGSTON FOX, M.D. BRUX., M.R.C.P. LOND.,

PHYSICIAN TO ST. LUKE'S MISSION DISPENSARY.

SINCE Dr. de Havilland Hall brought before the Clinical Society of London in 1888[1] the local application of cocaine in acute parenchymatous tonsillitis, I have had repeated opportunities of proving the value of this remedy, but I do not think that it has become so well known as it deserves to be. A strong solution of hydrochlorate of cocaine freely applied to the affected tonsil early after the onset of an attack of true quinsy (the form which commences on one side of the fauces—peritonsillar inflammation tending to suppuration) will, according to my experience, in most cases cut short the attack, and suppuration will not occur. The following case is a good illustration. A man about forty years of age had suffered from repeated attacks of quinsy with the formation of abscesses sometimes on one side of the throat and sometimes on the two sides in succession. He consulted me recently, having been suddenly taken ill in the night with severe pain in the throat and shivering. I saw him about fifteen hours later. He looked ill; the temperature was 103° F. and the pulse 116. The tongue was furred. The fauces were nearly blocked by the left tonsil, which was much swollen and pushed inwards by inflammatory swelling around it; there was some dirty yellow deposit on its surface. After a preliminary brushing with soda water (no bicarbonate was at hand) a grain of cocaine was dissolved in half a drachm of water, and most of this was used in free brushing

[1] Transactions of the Clinical Society of London, vol. xxi., p. 234.

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of the surface of the tonsil and surrounding parts. Some vomiting was caused. This is rather advantageous, as it prevents undue absorption of the cocaine. Next day, to the patient's surprise, the swelling had lessened and swallowing was easy, and on the following day he was convalescent. Judging by his former experience, a week or more of severe dysphagia and fever was anticipated, unrelieved until pus had been discharged. The treatment appears to be useless in ordinary tonsillitis.

Finsbury-square, E.C.

A MALFORMED FŒTUS.

BY JOHN CRAIG, L.R.C.P. AND S. EDIN.

ON Aug. 21st, 1895, I was called to see a married woman who had been in labour some time. The midwife in attendance told me that "the water had broken" about an hour previously. On examination per vaginam the finger impinged upon a soft substance which readily yielded to slight pressure and the nature of which I was unable to determine. No landmarks of any kind were to be felt and what the presentation was I could not determine. However, as the pains were frequent and strong I waited and in about half an hour the patient was delivered of a full-term female child perfectly developed in every way except for the complete absence of the upper half of the frontal, all the parietal, and the upper half of the occipital bones, together with hair and scalp. There was also a cleft palate. The soft substance felt on examination proved to be the brain only covered by the membranes. The infant cried lustily, passed urine and fæces, and took food well at first from the spoon though unable to suck (possibly owing to the cleft palate), but gradually sank and died on the third day in convulsions, apparently from acute meningitis. Permission to make a necropsy was not obtained.

Wolsingham, Durham.

A Mirror OF HOSPITAL PRACTICE BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriis collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

STUPOR OF ONE MONTH'S DURATION FOLLOWING AN EPILEPTIC FIT.

(Under the care of Dr. CHARLTON BASTIAN.)

THE prolonged period of unconsciousness which followed an epileptic seizure in this case is most unusual. It is well known that many epileptics sleep after every convulsive attack and that others do not, whilst some present no regularity in this respect, but sleep after some seizures and not after others.[1] Dr. Wilks[2] has drawn attention to a class in which there is a history of epileptiform seizures or in which epilepsy subsequently develops when the patient has for some time attacks of deep sleep without other phenomena of the disease. Dr. Jacoby[3] has also directed attention to this form of the disease. Dr. Hughlings Jackson[4] regards the coma following an epileptic seizure as an acute temporary dementia rapidly produced. For the notes of this case we are indebted to Dr. Harold C. Way, house physician.

A schoolgirl aged thirteen years was admitted to the hospital in a semi-comatose condition on Oct. 11th, 1895. She had been suffering from, and treated for, epilepsy during the previous eighteen months. The first fit occurred in April, 1894, the patient having previously been "perfectly well." This fit lasted about five minutes, the convulsions were bilateral, and she remained unconscious for half an hour or more. A second similar fit occurred two weeks later, and since then they had recurred at variable intervals. She had had, on an average, seven or eight fits every month, although she had been under treatment for epilepsy as an out-patient at the National Hospital for the Paralysed and Epileptic, Queen-square. The fits commenced quite abruptly, without warning. She did not micturate or bite her tongue. She had often complained of headache in the intervals between the fits. There had been no vomiting, but she had been duller mentally. There was nothing unusual about the patient's previous history, but there was some history of phthisis both on the father's and on the mother's side. On Sept. 18th, 1895, she had one of her usual fits, which had apparently no exciting cause and was not of unusual severity. Since this time up till the day of admission she remained in a restless and semi-comatose state. On admission she lay curled up in bed on her right side, with the knees drawn up on to the abdomen. She was very irritable, continually crying out when touched, and complained of pain in her head. This pain was not localised, and there was no tenderness. She could not be roused to answer questions, but there was some muttering delirium at night. There was no discharge from either ear. There was no paralysis of the limbs or face. The pupils were equal and were widely dilated. No optic neuritis was present when an examination was made by Mr. Gunn. The head and eyes turned to the right. The kneejerks were about equal and were only obtained with difficulty. The abdomen was retracted; the bowels were constipated. Tache cérébrale was well-marked. The temperature was not raised. Nothing unnatural was observed in the urine. The heart and lungs were normal. The pulse was frequent, being 120. An aperient was administered, and as she would not take food she was ordered to be fed by a tube passed through the nostril. She took food in this way well and without resistance. No change in her condition having taken place on Oct. 14th, except that her temperature was now over 99° F., Dr. Bastian ordered a full enema with an ounce of castor oil to be well injected. The next morning the "conjugate deviation" to the right had disappeared and the pupils were less dilated; and on the following morning (the 16th) the stupor had almost disappeared, the pulse was less frequent, and she asked to be allowed to take food by the mouth instead of by the nasal tube. Later in the day she became much brighter and spoke freely, having through the day been taking full spoon diet with custard and extra milk. On the 21st the patient had gradually become brighter and appeared to have almost regained her normal condition. The previous night, however, she had a bilateral twitching fit, lasting about half a minute, without loss of consciousness, according to her own account, though she passed urine in the fit. Since this fit her general condition did not seem to have altered for the worse. Later in the day she had two other slight fits of the same character. There was still no paralysis, no localised headache or tenderness, no vomiting, and no optic neuritis. On the 22nd she was ordered by Dr. Bastian a mixture containing potassium bromide, liquor arsenicalis, and tincture of digitalis. Three days afterwards she was allowed to get up. On the 29th she had a fit early in the morning whilst asleep, which lasted seven minutes, the twitchings being bilateral and accompanied by micturition. On Nov. 2nd she left the hospital in her usual health. After leaving the hospital (up to Dec. 18th) she had two slight fits, the effects of which quickly passed off, and she seemed to have been bright and intelligent in the intervals between the fits.

Remarks by Dr. BASTIAN.—The interest of this case lies in the fact of the very long continuance (that is, for a period of twenty-eight days) of a semi-comatose or stuporous condition immediately following an epileptic attack, which apparently did not differ in nature or degree of severity from others to which the patient had been suffering for the past eighteen months. When she came under observation at the hospital, and for some two or three days subsequently, there was no sign of unilateral paralysis about the face or limbs beyond a slight amount of "conjugate deviation" to the right. During this time the temperature rose in the evening to about 99·5°, and there seemed to be some general hyperæsthesia, which extended to the scalp, but there were no localised tenderness on the right side of the head, no sickness, and no trace of optic neuritis. At first the patient was simply nursed and fed through the nose; on the third day after her admission a full enema with an ounce of castor oil was administered; on the following day the "conjugate deviation" disappeared; and on the day after this consciousness

[1] THE LANCET, July 1st, 1893.
[2] Brit. Med. Jour., vol. i., 1892, p. 4.
[3] New York Medical Journal, vol. ii., 1893.
[4] Brit. Med. Jour., vol. ii., 1889, p. 360.

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was restored and the pulse-rate diminished, though she complained for a few hours of a diffuse pain in the head. It was now more clearly seen that there was no trace of paralysis. Later, after three fits had occurred and it was ascertained that there was nothing peculiar about them, and that they were of only moderate severity, she was ordered a bromide mixture containing arsenic and digitalis. After a few days more she was discharged, and has since been doing well. I have known several cases in which, after epileptic attacks, blindness has occurred, and has lasted for periods of from a few hours to three weeks, when sight has been rather suddenly and completely restored. In explanation of such cases one can only postulate the existence of vaso-motor spasms in certain parts of the visual tract. It is much more difficult, however, to explain the prolonged loss of consciousness in this and other like cases such as occasionally occur. Again, it seems clear that no local mischief occasioned by the fit could have taken place sufficiently severe to have produced a stupor of such duration and yet productive of no marked paralysis then or subsequently. It seems just possible that there may have been in this case some poisoning of the system from the intestine coincident with and provocative of the fit on Sept. 18th, and that the prolonged stupor may have been the combined effect of the fit and the stercoræmia. This suggestion seems to derive some support from the manner in which the patient's symptoms cleared up on the two days following the administration of the full enema.

LIVERPOOL NORTHERN HOSPITAL.

CASES ILLUSTRATING THE VALUE OF THE CONTINUOUS BATH IN THE TREATMENT OF EXTENSIVE EXTRAVASATION OF URINE.

(Under the care of Mr. CHAUNCY PUZEY.)

MR. PUZEY draws attention by these cases to a method of treatment (not usually mentioned in our text-books) which in his hands yielded very satisfactory results. It is a means of treatment which has found acceptance in some hospitals for extensive sloughing as the result of burns of a large portion of the body, also in cases of sloughing after injury. Both the following cases were severe, as will be seen by the record, and the local condition was extremely advanced. Free incision, with efficient antiseptic after-treatment, has done much to lessen the mortality after the occurrence of this form of cellulitis, and it is now comparatively rare for the patient to die from pyæmia, which was formerly a common result.

CASE 1.—A man aged forty-eight years was admitted to the Liverpool Northern Hospital on April 2nd, 1891, with a history of stricture for many years. He had suffered from swelling of the scrotum and penis for about a week, but urine was passed with increasing difficulty until the morning before admission. There was great swelling of the scrotum and penis, the swelling extending over the pubis and into the right groin, which was dusky red in colour. A large portion of the scrotum was black, looking, indeed, like decomposing liver. There was great constitutional disturbance. An hour after admission ether was administered and a free incision was made down the middle of the scrotum and perineum; a large quantity of foul-smelling urine and pus mixed with dark blood flowed away freely. The scrotum was so rotten that it was torn, and two large pieces were cut away, the tunica viginalis of one side being thus completely exposed. Hæmorrhage was checked by the cautery-iron. On the following day (and the next day also) it was found necessary to freely incise both groins and the abdominal walls towards the loins; the fascia was found to be sloughing, and the muscular structures somewhat involved. Three days after admission it was found quite impossible to keep the patient clean in any way, so he was moved into one of Dr. Barr's tank-beds, and this was without doubt the means of saving his life. He was kept in it for a week, soaking in boracic acid and Sanitas solution, and by the end of the week all the sloughs had separated. A full-sized catheter could now be passed all along his urethra, and eventually he made a capital recovery. On May 7th (five weeks after admission) Mr. Puzey had to perform a plastic operation to cover in the right testicle, which was completely bare of covering except of tunica vaginalis. This was successfully done, and Mr. Puzey showed the patient at the Liverpool Medical Institution on one of the clinical evenings.

CASE 2.—A man aged fifty-five years was admitted into hospital on May 22nd, 1895, with extensive swelling of the scrotum, penis, and groins, with redness and œdema extending over the lower third of the abdomen. The general condition of the patient was bad, and it was found that he was suffering from bronchitis and (probably) emphysema of the lungs, and that he had some years before suffered from a severe attack of rheumatic fever. Under these circumstances A.C.E. mixture was the anæsthetic used. The scrotum and perineum were laid open by a long central incision, and a large quantity of foul-smelling urine and turbid serum was evacuated, but no pus was apparent. The bladder was drained. Next day the groins and lower part of the abdomen were incised and sloughing cellular tissue exposed. All the wounds speedily discharged freely, but still the signs of extravasation extended into the flanks and down the thighs, and the man's general condition became so much worse that on the fifth day after admission it was evident that the continuous bath offered the only chance of recovery. He was therefore moved into a tank-bed. His condition at that time was thus noted:[1] "The cellulitis has extended up to and even beyond the costal margins and down the thighs as far as the knees. On the right side inflammatory redness extends into the axilla. Foul pus and sloughs ooze from most unhealthy-looking wounds; the right half of the scrotum is gangrenous; there are two large areas of sloughing integuments in the right groin, and below the anterior spine of the ilium. The pulse is 116 and of low tension, and the temperature is 102·6° F. There is frequent cough and expectoration, also diarrhœa." Two days later (May 29th) the condition was already improved, as noted thus: "The area of redness is now narrowing down to a broad belt involving inguinal regions, genitals, buttocks, and the upper part of the thighs. The sloughs are separating freely, necessitating changing of the water in the tank every four hours. The cough is less, expectoration being free. The patient feels comfortable, takes food more freely, and sleeps well." Two days later (June 1st) the improvement was continuing; but an incision was required behind the right trochanter, which set free a large collection of pus and sloughing cellular tissue. A large portion of the right side of the scrotum was detached, laying bare the tunica vaginalis. A day or two later his cough was so much better that the cough mixture was discontinued and quinine and strychnine substituted. The temperature was nearly normal. From this time steady progress was made. One or two small incisions through the integuments were required to let out small sloughs. On June 17th (after being exactly three weeks in the bath) he was removed on to an ordinary water-bed. After this the only trouble was in the penis and supra-pubic region, from which foul pus constantly welled up and occasionally a little urine. On July 22nd ether was administered and the mass of thickened integument and cellular tissue in the supra-pubic region and dorsum of penis was thoroughly divided, exposing a mass of black slough adhering to the pubic bone. In the course of a few days the slough came away. From this time there was nothing special to note. The filling up of this last wound was a tedious business and necessitated the patient's detention in hospital until Oct. 17th. For the last two months of his stay a full-sized catheter was passed two or three times a week.

Remarks by Mr. PUZEY.—It is obvious that this method of treatment is a serious tax upon the surgeons and the nurses engaged, and for this and other reasons it is only to be adopted in exceptionally severe cases. The majority of these cases which come under treatment at the Liverpool Northern Hospital recover under the usual surgical measures; but I should imagine that most surgeons will agree that such cases as the two just recorded, where extravasation has become so diffused, usually terminate fatally. Such, certainly, had been my experience; and I believe that these two patients would inevitably have died but for the continuous bath. As bearing on this point I may mention another case of exactly similar nature upon which I operated on May 24th, 1891. The patient was a man aged fifty-five years, whose condition was almost as bad as that of the patient in Case 1. The same free incisions and drainage were adopted, but in forty-eight hours the mischief had extended over the lower half of the body. He was removed to the tank-bed recently occupied by the patient in Case 1; but he was a feeble, nervous man, and was for some reason so terrified

[1] Report by Dr. H. S. Byers, assistant house surgeon.

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at being kept in the water that, after trying for some hours to pacify him, the house surgeon had him removed back to bed. The man died the fifth day after the operation. These are the only cases in which I have tried this treatment, but it appears to me that its efficacy is proved. I have barely alluded to the general treatment of these two cases, which, of course, involved much attention, careful and generous feeding, stimulants, tonics, &c., my main object in this brief account being to draw attention to the special value of the continuous bath. I need hardly observe that the whole success of the treatment depended upon the devoted attention of the resident surgeons and the nurses, to whom all credit is due.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Carcinomatous Cysts of the Breast.—Cystic Degeneration of Carcinoma.—Bladder after Castration for Enlarged Prostate.—Pedunculated Cysts in Hernial Sac.

AN ordinary meeting of this society was held on Feb. 4th, Mr. BUTLIN, President, being in the chair.

Mr. CHARTERS SYMONDS read notes of three cases of Carcinomatous Cyst of the Breast. In the first case a patient aged twenty-eight showed at first a small, flat mass in which a cyst ultimately developed. This, on being tapped, gave some clear fluid, and surrounding induration was afterwards felt. The cyst recurred, and on being incised a month later showed the presence of a solid growth. On removal it proved to be a carcinoma. Recurrence took place in a year; and in another year the patient died from extensive deposits in the brain without any localising symptoms. The second case was that of a patient aged fifty-six, who was seen on Dec. 20th, 1894, with an ordinary large cyst from which an ounce of clear amber coloured fluid was removed. It was tapped again a month later; and on Feb. 13th, having once more refilled, was removed with some of the surrounding tissue. By July 23rd, 1895, the swelling was as large as ever. It was again tapped, similar fluid being removed. In October of the same year it was larger than before. The old scar was thin and through it the dark appearance of the cyst could be seen. On incising this dark fluid escaped and the wall was found to be hard and studded with nodules and projections of hard, dense growth. The whole breast was removed, and the specimen (exhibited) showed an oval cyst the size of a large egg with a septum partially dividing it into two. The microscopical sections exhibited showed the ordinary appearances of carcinoma. The third case was a patient aged fifty-five who had noticed a tumour for a few days only. It was hard, nodular, flat-topped, and gave no fluctuation. A preliminary incision went through an inch of dense tissue. After removal an ordinary serous cyst was seen projecting from the under surface of the gland. It had a smooth wall except at one point where a small nodule existed. This, on being examined, proved to be a carcinoma. In his remarks Mr. Symonds called attention to the fact that in all the cases the cyst was near the periphery of the gland, and, therefore, differed from the ordinary duct tumours. In none was there a second cyst. The secondary deposits in the brain of the first case had the appearance of abscesses on account of the central degeneration. In the second case the cyst when first removed showed a small nodule which had not been examined microscopically, but in the light of the subsequent recurrence and of the appearances found in the third case was no doubt carcinomatous. He called attention to a similar kind of tumour described by Wilks and Moxon as occurring in the brain. He considered that, important as these cases were, they did not justify a surgeon recommending immediate operation in all cases of solitary cyst; that they demanded careful watching and must be regarded with suspicion; while his experience led him to conclude that, on the contrary, the large multiple cysts gave much less cause for anxiety.

Mr. J. H. TARGETT showed for Mr. W. S. SPRENT a specimen of Cystic Carcinoma of the Breast. It was obtained from a woman aged sixty-seven years, who noticed pains in her left breast ten weeks before operation, and six weeks later she noticed that the breast was growing larger. There was a dirty red grumous discharge from the nipple (which was retracted) for about six weeks. Three years previously the patient had a delusion, following upon a severe attack of influenza, that she had been to a hospital and had the left breast removed for cancer. The breast was carefully examined at that time, but nothing wrong was found. The breast after removal showed a thin walled cyst the size of a pullet's egg situated towards the deep surface of the gland and at some distance from the retracted nipple. The inner surface of the cyst was uneven from the projection of ridges and small rounded nodules. At the upper part the wall of the cyst merged into a dense mass of apparently glandular tissue which on section exuded a colloid substance. The wall of the cyst was composed of fibrous tissue arranged in layers, and it had no definite lining membrane. The outermost part of the cyst wall showed carcinomatous structure. The cystic change was regarded as a secondary condition, due to extensive softening and degeneration in the larger alveoli of the tumour and subsequent coalescence of these cystic alveoli into one common cavity.

Mr. TARGETT likewise showed a specimen from Guy's Hospital Museum of a Growth of the Breast from a woman aged forty-five. The growth had been very rapid, and it had fungated. It was of cancerous nature. Three months after operation the patient returned with a recurrence which consisted almost entirely of a cyst, the wall of which was found on examination to be made up of carcinomatous tissue. He thought that cysts in connexion with carcinoma could arise in one of three ways: (1) degenerative changes, usually from the softening of the neoplasm, and this form rarely resulted in the production of large cysts; (2) obstruction of a large duct by growth, this being a retention cyst; and (3) it was possible that a simple cyst might take on malignant growth. He had no specimens to illustrate this latter form, but some points in favour of it were that some of the simple cysts occurred far away from the nipple, that the amount of growth found in connexion with them was usually very small, and that the clinical history was often that of a benign growth of many years' standing.—Mr. C. BEADLES said that five years ago while resident at the Cancer Hospital he collected some specimens of cysts in connexion with cancer of the breast and brought forward his views as to the method of production of cystic carcinoma. In that paper he dealt principally with the formation of microscopic cysts. With regard to larger cysts these might originate by an overgrowth of the microscopic variety; but, on the other hand, a cyst by the tension and irritation it caused to surrounding tissues might lead them to pass on into malignancy. He showed the breast removed from a female aged forty-five. She had an abscess twenty-four years ago, which was lanced and left a small, painful lump. Six months ago a tumour appeared and was accompanied by sanguineous discharge from the nipple. On removal the growth proved to be a cystic carcinoma, the cysts being filled either with viscid secretion or epithelial cell growth. The second specimen was removed from a female patient aged thirty-nine. Twelve months previously she had suffered from a blow on the breast, and she had noticed a tumour there for only two months, although a mass in the axilla had been noticed for five months. On examination the tumour was found to be composed of large alveolar spaces which were lined with many layers of epithelial cells. A similar cystic formation was noticed in the secondary axillary growths. The third specimen was obtained from a female aged sixty who had a blow on her breast four years ago. A tumour formed which gradually increased in size to form a large mass with areas of fluctuation; the axillary glands were enlarged. The tumour was found to be composed of a single large cyst which contained viscid fluid and blood-clot. The cyst wall was composed of dense fibrous tissue and some smaller cysts present appeared to be of the nature of dilated lymphatic channels. The next specimen was a growth of doubtful nature, obtained from a female aged sixty-three. Twenty-one years ago she noticed a small nodule in her breast, and this lately had grown rapidly. On examination a large cystic tumour was present of the size of a cocoanut and the axillary lymphatic glands were enlarged.—On section the breast was found to be composed of a mass of cysts, which were filled with a brown fluid of gelatinous nature. The main structure of the breast was of doubtful character, but he believed it to be carcinomatous. At another part of the breast there was a small encapsuled adeno-fibroma.—Mr. MORTON said he wished to refer to two

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examples of large cysts of the breast associated with carcinoma, both occurring in elderly women. In the first case a swelling of the breast had been noticed for eight months and when the patient came under observation the breast was as large as an infant's head, being partly solid and partly fluctuating. There was a serous discharge from the nipple and the axillary glands were enlarged. On incision much serous fluid was discharged and, the case being then believed to be of innocent nature, was treated by drainage of the cyst. A month later the solid growth around the cyst wall had much increased and so the breast was removed and the axilla cleaned. Microscopically the growth proved to be a scirrhous carcinoma. In the second case the woman had noticed a swelling of the breast for four months. The gland was of the size of a cocoa-nut, it presented a boss on the surface and the enlargement appeared wholly cystic, excepting one part where there was a small hard nodule. An incision was made, the fluid evacuated, and the small growth was then cut into. It was found to be a scirrhus and so the breast and the axillary glands were removed.—Mr. W. G. SPENCER said that cases of two kinds were being described together, the first in which the cyst was the primary feature, malignant characters being noticed afterwards, and the second group were instances of cystic degeneration of tumours. The precise parallel to these conditions of the breast was to be found in the ovary. The moral was that simple cysts of the breast occurring in patients of an age when they were liable to cancer should be closely watched. The cyst when single was probably not simple at first, but the cyst developed from the irritation of cancer elements which had already been deposited.—Dr. SNOW said that cases of multiple cysts occurring in various organs had been described in the Transactions of the Society by Dr. Pye-Smith and others, but he regarded these as instances of cystic malignant disease. Simple cysts in women up to the age of thirty-five were commonly associated with smaller cysts, these latter being found when a dissection to remove the former was undertaken. He believed that cysts occurring at a later period, at about forty-five, were almost always sooner or later associated with malignant disease.—The PRESIDENT said that years ago, when he was surgical registrar at St. Bartholomew's Hospital, Mr. Langton removed what appeared to be a simple cyst of the breast. He made a microscopical examination of the wall, and on section it proved carcinomatous. A few months later the patient returned to the hospital with recurrence in the breast of typical scirrhous character. He felt sure that cysts in the breast, which were common in women after forty years of age, by no means commonly ended in malignancy.—Mr. SYMONDS, in reply, said he was sure that the cysts in the breasts of older people were more commonly innocent than those which occurred at an earlier age.

Mr. DAVIES-COLLEY showed a specimen of Enlarged Prostate from a patient whose testicles were removed eight months before his death. The patient, aged seventy-three, had suffered from the ordinary symptoms of enlarged prostate for four years. He had to pass his urine eight or nine times in the night, and per rectum the prostate could be felt to be two inches and a half in breadth and about two inches in the other measurements. In April, 1895, both testicles were removed. For a month he was much relieved. He passed his urine in a larger stream and only had to get up about three times in the night to empty his bladder. The prostate, however, remained about the same size. In December, 1895, eight months after the operation, he died from pyelo-nephritis and bronchitis. The bladder was thick-walled and contracted. The right lobe of the prostate was much enlarged. The urethra was much encroached upon and pushed to the left, and there was a diffused swelling in the lower part of the trigone from the same cause. The external measurements of the prostate were the same as those noted upon the day of the castration. It would appear, therefore, that, although some relief followed the operation, there had been no diminution in the size of the prostate.—Mr. SHATTOCK inquired what was the histology of this prostate. It had already been observed that the more glandular the enlarged prostate was the more likely was the organ to undergo diminution in size after castration.—Mr. DAVIES-COLLEY replied that a microscopical examination had not at present been made.

Mr. C. B. LOCKWOOD showed a specimen of Pedunculated Cysts which were pendant within the sac of an inguinal hernia which he had removed at an operation for the radical cure. After commenting upon the unique nature of the specimen, he said the hernial sac was of the funicular kind and probably congenital. When he opened it at the operation two cysts like nasal polypi protruded. They were attached by a slender neck to the back of the sac at about its middle. The largest was an inch long and had a hollow in its interior which opened by a minute orifice upon the outside of the sac. Another cyst, about half an inch long and very delicate in structure, sprang from the sac wall about half an inch higher up. Two very small papillary projections also grew from the interior of the sac. The pathology of these cysts was discussed, and it was opined that they had a developmental origin, but another specimen was shown in which cysts of a not dissimilar kind projected into the sac of a femoral hernia.—Mr. SYMONDS asked if in the second specimen shown the pedunculated mass was not a piece of omentum. He had more than once on dissecting a femoral hernia found the omentum adherent to the neck of the sac and containing numerous cysts.—Mr. ECCLES said that there appeared to be three varieties of cyst in connexion with hernia—a cystic epiploic appendix, a dermoid, and a hydatid; but the specimen shown could not be placed in any of these categories. He asked if it might not be a serous cyst like those sometimes found in connexion with the peritoneum lining the abdominal cavity.—Mr. MORTON said that recently, when performing a radical cure for hernia, he discovered a mesenteric cyst in a hernial sac. The intestine was stretched over the cyst, and he peeled the latter out from between the layers of the mesentery. The wall of the cyst was dense and fibrous, and on puncturing it a viscid fluid escaped which coagulated into a jelly.—Mr. LOCKWOOD, in reply, was unable to state whether, at the operation on the second case, omentum had been found in the hernial sac. He was sure that the cysts in his case were not inflammatory in origin.

The following card specimens were shown:—

Dr. LEONARD GUTHRIE: Congenital Deficiency of the Abdominal Walls, with Malformed Bladder.

Dr. HEWLETT: Virulent Diphtheria Bacilli from the Throat Twenty-two Weeks after Infection.

Mr. RUTHERFORD MORRISON: Hæmorrhagic Duct Cancer of the Breast.

LIVERPOOL MEDICAL INSTITUTION.

Ectopic Pregnancy and Hæmatocele.—Exhibition of Cases and Specimens.

A MEETING of this society was held on Jan. 30th, Dr. RICHARD CATON, President, being in the chair.

Mr. BRIGGS read a paper on Ectopic Pregnancy and Hæmatocele. He based his remarks on the cases in which operation was performed. There were four cases of undoubted ectopic pregnancy; the first was an advanced case; collapse came on at the sixth month of pregnancy and operation was performed sixteen hours later. The fœtus was removed, the placenta left *in situ*, and the sac drained. The patient recovered. The second, third, and fourth cases ruptured at the tenth, seventh, and ninth weeks respectively. There was difficulty in arresting hæmorrhage in the second case after the broad ligament had been tied, and the operation was prolonged; eventually cyanide gauze packing was used, but the patient died on the eighth day. The third and fourth cases recovered. In the third case no ligatures were used, the bleeding being controlled by plugging with cyanide gauze, a proceeding Mr. Briggs lauded highly. A case of pregnancy in a rudimentary horn of the uterus was related; rupture occurred at the ninth week, and the patient recovered after operation. Four cases of hæmato-salpinx were next considered; the cases were probably tubal pregnancies, but no fœtal structures were recognised. In one the tube had ruptured, in one there was the condition known as tubal abortion, and in two the affected tubes were dilated with blood. He described six cases of hæmatocele, four due to salpingo-oöphoritis, one to cystic ovaries, and in one the cause was unknown. He thought that operation was not often necessary in the conditions under consideration.—Dr. IMLACH said that pelvic hæmatocele was rarely due to menstrual retention in cases of imperforate hymen or to the intraperitoneal rupture of the thrombus in the cellular tissue. Ectopic gestation and salpingitis occurring in conjunction with obstructive heart disease were the more frequent causes. The paper he considered upheld operation and the removal of the diseased tubes as the proper treatment of hæmatocele.

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This was what he advocated in two papers published in 1886. His views were adversely criticised at that time, it being said that cases of pelvic hæmatocele never required surgical treatment. He hoped that now the pathology of the disease was more widely known such cases would be encouraged by the medical profession to submit to the abitrament of surgery with confidence. It was some consolation that time had shown him to be right in his treatment of pelvic hæmatocele.—Dr. FINEGAN said he thought many cases did not require any operative interference.—Dr. E. T. DAVIES said that he considered all cases of hæmatocele to be due to the rupture of an ectopic gestation, and called attention to the fact that he had never seen a pelvic hæmatocele in an unmarried virtuous woman.—Mr. ALEXANDER also took part in the discussion, and Mr. BRIGGS replied.

Mr. THELWALL THOMAS showed a Melanotic Growth from the back and a large Congenital Odontome.

Mr. ROBERT JONES exhibited a girl aged sixteen years suffering from Recrudescent Rickets. She could walk perfectly until two years ago, when considerable epiphysial disturbances occurred. Changes were apparent in the skull, jaw, upper limbs, sacrum, and lower extremities. The forearms presented the usual deformities ascribed to crawling, although during infancy and childhood they were perfectly straight. The family history was good, and no dietetic cause could be found for the deformities, which were very extreme. Mr. Jones said he had seen between twenty and thirty such cases.—Mr. R. W. MURRAY and Dr. CARTER made remarks.

Dr. WHITFORD described two cases of Pernicious Anæmia. Both cases were very far advanced when first seen, the percentage of red blood corpuscles being about one-fourth of the normal. The characteristic yellow tint was a marked feature in both cases. In one there was extensive and almost uncontrollable hæmorrhage from the mouth and nose, and in the other there was no hæmorrhage of any kind. In neither was there retinal hæmorrhage. A necropsy was held in one case: all the organs were highly anæmic; there was serous fluid in all the cavities, including the cerebral ventricles. The heart was fatty, dilated, and the walls slightly atrophied. The spleen and other organs were normal. There was no atrophy of the stomach. Death in both cases was due to asthenia.—Dr. CARTER recommended sanguis bovinus exsiccatus as a good remedy in pernicious anæmia.—Dr. G. HAMILTON mentioned transfusion.

Mr. THELWALL THOMAS gave an analysis of Twenty-five Consecutive Cases of Strangulated Hernia with one death; they included fourteen inguinal, seven femoral, and four umbilical. There were two cases in which omentum only was found, although acute intestinal symptoms were present. In one case the omentum and sac were sloughy, with cellulitis of the abdominal wall, and in one gangrene of the omentum, the bowel being healthy. Amongst them was a case of vesical hernia in the right groin and scrotum, complicating a strangulated inguinal hernia. Mr. Thomas advocated rapidity in operating and thorough carbolising the contents of the sac with a 1 in 40 carbolic lotion before any attempt is made at reduction. In the after-treatment he avoids opium and ice.—Mr. RUSHTON PARKER, Dr. G. HAMILTON, and Dr. MACFIE CAMPBELL made remarks.

The following card specimens were shown:—Recrudescent Rickets, Pernicious Anæmia, Twenty-five Cases of Strangulated Hernia, and Ectopic Pregnancy and Hæmatocele.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Notes of a Head Case.—Pulmonary Phthisis in Children.—Exhibition of Cases and Specimens.

A MEETING of this society was held on Jan. 17th, Mr. MAYO ROBSON, President, being in the chair.

Dr. IRVING (Huddersfield) read Notes of a Head Case. The patient was a boy aged five years who had previously enjoyed very good health and who had a good family history. He was suddenly seized with severe sickness and pain in the head with marked lividity of the face. The temperature rose to 103° F., and on the day following the onset of illness the patient became insensible and lost the use of the right arm and right leg. The pulse was slow and the pupils were normal in size and equal. Five days later improvement took place, the temperature fell, sensibility returned, and he regained to a great extent the use of his arm and leg. In a few days, however, the temperature rose suddenly in the evening and fell below normal the following morning. For some days he had nearly twelve hours' high temperature each day, with great restlessness and severe pain in the head generally referred to the frontal region, whilst during the next twelve hours there was no rise of temperature and he was bright, comfortable, and rested well. Periods of pyrexia were gradually delayed in onset and shortened in duration until he appeared to be quite well at night and was fretful and ill during part of the day, and the high temperature and distress by-and-by only lasted two or three hours. There was very rapid wasting. The temperature was very erratic, being at times normal in the evening and from 104° to 105° in the morning. There had been no rash, no ear disease, and no skull tenderness. There was no rigidity of the neck and the knee-jerks were normal. Vision was good, though there was some evidence of optic neuritis. Six weeks after the commencement of the illness he had several severe convulsions which quickly became general. He vomited frequently and wasting continued. The severe convulsions were only during one day, but there were frequent muscular twitchings afterwards. For five weeks he never spoke and was fed almost entirely by the rectum. Emaciation became extreme. At the end of four months, however, he commenced to take food by the mouth well and slowly but surely gained ground. He was able to leave his bed just five months after the commencement of the ailment and to walk a month later. There was never any evidence of any disease in the abdominal or thoracic viscera, and the urine did not contain albumin. Recovery was complete and the boy has remained quite well since then, now a period of fifteen months. Opium had a marked effect in controlling the symptoms, and it was given regularly for three months.—The case was discussed by Dr. JOHNSTONE CAMPBELL, Dr. BARRS, Dr. WARD, Dr. JOHNSTONE, Dr. CHURTON, and the PRESIDENT.

Dr. JOHNSTONE CAMPBELL (Bradford) read a paper upon Pulmonary Phthisis in Children under Seven Years of Age, in which he pointed out that the peculiarities in the physical signs observed in such cases are due partly to the special characters of the changes in the lung itself and partly to the variations in the distribution of the tuberculous material, the main feature to be noticed being its irregularity of distribution. This difference he holds to be the result of several causes, the most important of which is the absence of complete differentiation of actively growing organs—that is to say, the want of fixation of shape and function which is to be seen, not only in separate organs, but in different portions of the same organ. Dr. Campbell further referred to the frequency with which the root is attacked as the result of a direct extension from a caseous bronchial gland and to the diminished liability of the apex to infection in children, as compared with adults, owing to the fact that in the former less lung is extra-thoracic than in the latter. After briefly describing the physical signs and the pathological appearances met with he referred to the question of latency, and pointed out that the bacilli, after remaining relatively quiescent in the lymphatic glands for years, frequently eventually become generally disseminated. As an example of this he described a case which had been recently under his care in the Bradford Infirmary; the patient died at the age of seventeen years from acute tuberculosis, the primary focus of infection having been caseous retro-peritoneal glands which in all probability were infected in early childhood. Dr. Campbell then described the general symptoms and the course of the disease and discussed the differential diagnosis, stating that in his opinion the only grounds upon which a positive diagnosis could be based, apart from finding tubercle bacilli, were the course of the illness, the insidious onset, and, further, the fact that gradual wasting and progressive anæmia and debility had preceded the lung symptoms for a considerable period.—In replying to the remarks of Mr. MAYO ROBSON, Dr. BARRS, Dr. SOLLY, and Mr. HARTLEY, Dr. CAMPBELL said that, as the result of the examination of pulmonary phthisis in a large number of monkeys as well as in children, he thought that the mode of spread of the tuberculous mischief from bronchial glands was in some cases by means of the encroachment of the enlarging glands upon the lung and their ultimate rupture, and in others by means of the direct backward growth of tubercle along the lymphatic trunks, in the same way as is known to occur along the ureter from a tuberculous kidney. In answer to

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Mr. LITTLEWOOD, he stated that, although it is out of the question to attempt to prove that infection always takes place through an abrasion of the surface, yet that in his opinion, considering the undoubted fact that the bacilli can remain latent for years, it is equally impossible to prove that such a mode of infection is not the true one. In answer to Dr. CHURTON the speaker said that although a very few cases appear to recover completely and a certain number result in fibroid phthisis, yet the proportion of these compared to those that end fatally is so small as not to materially affect the gravity of the prognosis.—The paper was discussed by Mr. SOLLY, Dr. WARD, Dr. BARRS, Dr. GRIFFITH, the PRESIDENT, and Mr. LITTLEWOOD.

The following cases and specimens were shown:—

Dr. BARRS: Primary Muscular Dystrophy—(1) Peroneal Type, and (2) Pseudo-hypertrophic Type.

Dr. TREVELYAN: Pseudo-hypertrophic Paralysis.

Mr. LAWFORD KNAGGS: Specimen of Strumous Disease of Ankle.

Dr. T. WARDROP GRIFFITH: (1) Child with Bifid Sternum, and (2) Specimens from Post-mortem Room.

Dr. CHURTON: (1) Spastic Hemiparaplegia, with Paralysis of the Left Arm, from Subacute Cervical Myelitis; and (2), for Mr. A. NICHOLSON, a Man Cured Fifteen Months ago of Severe Epilepsy by Hypnotic Treatment.

EDINBURGH OBSTETRICAL SOCIETY.

The Use of Plaster Moulds.—Serial Sectional Anatomy of the Early Fœtal Pelvis.—Exhibition of Specimens.

AN extra meeting of this society was held on Jan. 29th; in the absence of the President Professor SIMPSON occupied the chair.

Dr. BERRY HART read a paper on the use of Plaster Moulds as a Basis for Models in Gynæcology and Obstetrics. For some time past he had been taking moulds of the perineal region prior to operation, and also apart from operation in the abdominal and sacral regions in obstetric cases. The method is quite simple. If, for example, a mould of perineal tear involving the anus is desired the patient is placed in the lithotomy position and the parts cleaned and shaved as usual. Sheets of strong brown paper are inserted between the patient and the table; they are arranged so as to leave sufficient space between them and the perineum and thighs for a quantity of plaster to be poured in. Cathcart's mixture is used for the mould and it sets in a few minutes. The mould is removed, the parts again cleansed, and the operation begun. A gelatin mould is made from each original cast, and from this several copies can be taken without injury to it. The casts are allowed to dry, finished with sand-paper, oiled, and painted. When it was desired to show the stages of an operation as that for perineal tear or amputation of a hypertrophied cervix, these parts of the cast are cut clean out with knife and chisel and replaced with a plastic mass of denoline. With a wet knife the incisions are made in the denoline, the flaps raised and adjusted exactly as if operating on a patient. The surface of the denoline is finished and painted in a similar manner to the rest of the cast. Denoline is a patented plastic material sold by artists' colourmen and used for decorating picture frames. It suits admirably for the purpose of a model, as it hardens when dry and can be sand-papered and polished in almost any way. In obstetrics he had obtained models of the external abdominal surfaces at the end of the first stage, at the beginning of the third stage, and at the end of it; these illustrate well the great changes that take place in the contour at the various stages. Another application was in regard to the sacro-lumbar surface or lozenge boundary known as the Raute of Michaelis. The upper angle of this space is greater in the rachitic pelvis than in the normal. These casts are very useful for demonstrating different points to a class. Dr. Berry Hart concluded by giving other instances of the value of these moulds.

Dr. BERRY HART also read a paper on the Serial Sectional Anatomy of the Early Fœtal Pelvis, with special reference to the Development of the Clitoris, Vagina, and Hymen. A clear explanation of certain facts has not as yet been given. It is remarkable that in the full-time fœtus a hymen is always present, and still more remarkable that in atresia vaginæ the hymen, and occasionally a double hymen, is developed. Again, the structure of vaginal mucous membrane is quite analogous to skin. It consists of many layers of a squamous nature, the deeper being more oval. In the superficial desquamata-like skin there are practically no glands present and in prolapsus uteri the everted mucous membrane takes on the appearance of skin. One would expect, therefore, an epiblastic origin for the lining of the vagina and the outer covering of the vaginal cervix. The genital tract is developed, however, from the ducts of Müller, the non-coalescing portions forming the Fallopian tubes, the coalescing parts the uterus and vagina. Some observers assert that the Wolffian ducts enter into the formation of the lower part of the vagina, and Torri gives most excellent reasons for considering the hymen as not vaginal. The ducts of Müller arise undoubtedly from the mesoblast, and the Wolffian ducts from the epiblast. The received opinion, however, is that the vaginal lining is derived from Müller's ducts, a mesoblastic source, and that the Wolffian ducts and bodies have only an important excretory function in the early fœtus until the permanent kidneys develop. They are considered afterwards as having only a pathological significance as they provide the gynæcologist with the well-known parovarian cyst, with some of the papillomatous tumours of the ovary and broad ligament, as well as some of the rarer vaginal and broad ligament cysts. He had examined serial sections of a five weeks' fœtus, a six weeks' fœtus also serially cut, a fœtus at three months and a half, a fœtus at four months and a half, and one at full time. 1. The development of the genital tract prior to the formation of the hymen. In the six weeks' fœtus one finds in the abdominal cavity the peritoneal ridges, one on each side of the middle line, with the Wolffian bodies. Lower down the outer ridges with the Müllerian ducts appear, and as one examines the lower levels the ovary assumes its characteristic pedunculated form lying on the posterior lamina of what is to be the future broad ligament. The ducts of Müller are seen in the future broad ligament, and at a still lower level the genital cord of Thiersch. In the five weeks' fœtus we find four canals in the genital cord, the two outer being the Wolffian ducts, and the two inner the ducts of Müller. In the six weeks' fœtus the ducts of Müller have coalesced into one canal, but the Wolffian ducts are distinct. Still lower the Wolffian ducts open into the urogenital sinus, while the ducts of Müller end in an eminence on the posterior wall of the sinus. Immediately before the Wolffian ducts reopen they flatten out laterally, and with the Müllerian duct give an H-shaped appearance on transverse section. So far it is certain that the "einlage" of the greater part of the vagina is the ducts of Müller, with probably a portion of the Wolffian ducts where the adult vagina is H-shaped on transverse section. 2. The origin of the prepuce of the clitoris and the hymen. In the four and a half months' fœtus the coronal sections of the glans clitoridis show a remarkable horse-shoe-like structure surrounding the glans tissue. The margins of the horse-shoe consist of a single layer of active, deeply stained cells, while between these there are less deeply stained cells. As far as one can determine they are epithelial. Their origin is clearly determined in sagittal sections of the glans in the three and a half months' fœtus, where one sees the epiblast sending in two sickle-shaped processes whose apices do not meet except at the sides of the glans. These processes are involutions of the epiblast, and carry the superficial layers necessarily in their substance. The clitoris in the early fœtus is bulbous and covered smoothly with epiblast. The final changes are the breaking down of the central cells of this involution, which, of course, were superficial in origin; the prepuce is thus separated from its connexion with the glans and completely formed. The hymen may be said always to be present in the full-time fœtus. In order to study its development sagittal sections of the three and a half months' fœtus were examined, and partly sagittal and partly axial transverse in the four and a half months' fœtus. At the site of the vaginal entrance one sees an epiblastic ingrowth, the deeper layer of the epiblast passing in and with it the superficial layers also. This passing in of the superficial layer is, as in the case of the clitoris prepuce, of great importance, because it is the desquamation of these superficial layers, however effected, that gives rise to a lumen. The passage is in the form of multiple tubular ingrowths; the intervening walls disappear, and thus a single canal up to the outer aspect of the hymen is formed. A little higher in the vaginal axis a remarkable structure is to be noted—viz., an oval collection of cells from which cords of actively proliferating cells pass in several streams as it were

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to fill up the vaginal lumen as far as the cervix uteri; the posterior fornix is mapped out by a sickle-shaped prolongation of the cells. At the periphery these cells are mapped off by actively growing cells, while the general mass in the bulbs is made up of epithelial cells exactly similar to those of the fully developed vagina. There are two of these bulbs, in one specimen one is seen with a duct, the Wolffian duct passing into it. They are flexed laterally to one another. These bulbs are Wolffian in origin, and now termed the Wolffian bulbs. The formation of the vagina and hymeneal opening seems to be as follows. Up to the origin of the hymen the vagina is Müllerian and lacking its lower end. Then comes the formation of the Wolffian bulbs by a proliferation of the lower ends of the Wolffian ducts. The epithelium of these ducts, epiblastic in origin, proliferates and passes up into the vaginal canal, filling up its lumen, mapping out the fornices, covering the vaginal portion of the cervix and passing out first into the lower part of the cervical canal. The central cells are the least active and become shed—that is, a lumen is formed. The vaginal entrance and hymen are formed where the epiblastic ingrowth from below meets the bulbar distension above. The view advocated by some that the fully formed vaginal lining is derived from the ducts of Müller is full of difficulties. It would make the vaginal lining mesoblastic and give no explanation of the remarkable blocking of the vagina with cells while the hymen is being formed, as well as no reason for the different epithelial lining of the vagina from that of the uterus and tubes. The lining of the uterus and tubes is Müllerian, that of the vagina Wolffian. An atresia vaginæ is only atresia of the Müllerian vagina. The reason a hymen is always present in the full-time fœtus is that the hymen is formed from the Wolffian bulbs and lower epiblastic involution, and the Wolffian bodies are indispensable to the life of the fœtus. The double hymen is due to the non-coalescence of the Wolffian bulbs. In imperforate hymen the tissue between the epiblastic involution and the Wolffian bulbs is intact, the proliferations have not communicated.—Professor SIMPSON and Dr. BALLANTYNE made remarks on the papers, and Dr. WHITAKER, who was acquainted with the course of the research, agreed with the opinions expressed by Dr. Berry Hart.

This meeting of the society was held in Dr. Berry Hart's museum, where he showed his casts and illustrated his paper on development by microscopic slides and microphotographs thrown on the screen by means of an electro-lantern.

The following specimens were exhibited:—

Mr. STRUTHERS STEWART: Microscopical Specimens illustrating Endometric Conditions.

Dr. BERRY HART: Slides illustrating Epithelioma Vulvæ, Fibroma Vulvæ, and Fibroma Vaginæ.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on Jan. 31st, the President, Dr. W. L. Reid, being in the chair.

Dr. T. KENNEDY DALZIEL showed a girl aged eleven years who had been the subject of a Spina Bifida Occulta, and from whom he had removed the tumour by the plan recommended by Thorburn of Manchester. The growth had involved the third, fourth, and fifth sacral nerves, producing incontinence of urine and fæces and an extensive area of anæsthesia over the buttocks. Improvement in all these conditions was now (four months after operation) very decided, control over the evacuations being nearly perfect, and the anæsthetic district much diminished in size.—Dr. DALZIEL also submitted a Diffuse Papilloma of the Rectum Removed by Operation. The patient, a male aged fifty-six years, had for two years suffered from discharge of blood and watery fluid from the rectum, with little or no pain. The stools for some time had been very free from solid matter, and large, hard, fæcal masses were found in the colon. Examination showed the whole circumference of the rectal mucous membrane for a distance of eight inches from the anus to be the seat of a shaggy, fragile, papillomatous growth. At the operation the affected mucous membrane was easily separated from the muscular coat of the bowel, was divided above, and removed; then, to prevent stricture, the edge of the healthy mucous membrane was pulled down and stitched to the skin at the anus. This, of course, doubled up the muscular coat of the lower part of the rectum, but this had been considerably thinned as if from pressure of the mass, and no inconvenience resulted. Since the operation (a year ago) the patient had been free from all symptoms, and the act of defæcation was performed quite naturally.—Dr. DALZIEL also showed a foot he had amputated in consequence of the existence of a Perforating Ulcer. The patient, a woman, had injured her limb by a fall fifteen years ago, and had suffered ever since from pain, swelling, and anæsthesia in the area of the musculo-cutaneous nerve; ulceration had been present for five years. The nerve showed under the microscope marked perineuritis.

Dr. RUTHERFURD showed a Tibia the seat of Acute Osteomyelitis; also the dissected Knee-joint from the same case. The interest of the latter arose from the fact that in hospital the joint became the seat of purulent exudation, and had been opened under the usual antiseptic precautions. It had completely resolved the synovial membrane and other tissues being in every respect normal. Unfortunately, however, osteo-myelitis developed in the humerus and the patient died from exhaustion.

Dr. NEWMAN showed a patient on whom he had operated for Movable Kidney. The patient had received a blow on the right side six years ago, and since then had been much troubled with pain. She had passed through seven pregnancies, and at the time of the operation was in the third month of her eighth pregnancy. Notwithstanding the fact that frequently the symptoms of movable kidney diminished as pregnancy advanced, Dr. Newman had operated in the present case mainly because in patient's experience the later months of pregnancy had been attended by aggravation of the pain.—Dr. NEWMAN also related a case of Movable Kidney with Intermittent Hydronephrosis (right side) which had lasted for six years, and which was completely cured by stitching the kidney as high up as possible to the abdominal wall. He suggested that the hydronephrosis was due to a folding of the ureter, which was only overcome by the accumulation of fluid behind it, and which was rendered impossible when the kidney was fixed so high up as to keep the ureter in a straight line.—Dr. NEWMAN also showed a patient who had suffered from Pyonephrosis. He was admitted to the Glasgow Royal Infirmary with high temperature and such acute pain that it became necessary to operate without delay. Placed under chloroform, the swelling suddenly disappeared, but the catheter only showed a few ounces of clear urine in the bladder, and it was left uncertain whether the pus had ruptured into the colon or had burst into the perinephritic tissue. No blood or pus appeared in the urine and no undoubted pus was detected in the stools, but after several days' constipation there was diarrhœa, with pale, clayey stools, and Dr. Newman suggested this to be altered pus. In the course of a week the swelling reaccumulated, and then pus for the first time was found in the urine. The pus was evacuated on incision and the patient made a good recovery.—Dr. NEWMAN also showed a patient who had had difficulty in micturition needing the use of a catheter. For some days following this blood and pus had been present in the urine, but these soon ceased. It was noticed, however, that even when the bladder was empty there was fulness in the hypogastrium with fluctuation and dull percussion. On incising the abdominal wall a cyst was found situated in front of the peritoneum, connected with the bladder, and passing up to the umbilicus. It contained about eighteen ounces of a glairy fluid, and was almost certainly developed from the urachus.

THE WESTON BEQUESTS.—Some time since those interested in the charities of Manchester were delighted to learn that the late Mr. Samuel Weston had bequeathed £170,000 as charitable legacies, in addition to bequests to private persons. The infirmary was to receive £50,000, and about the same sum was to be divided among other medical charities. Unfortunately, the realisation of the estate has resulted in the payment into court of the sum of £146,610 only, and though a few more assets have still to be realised, it is not expected that the total sum will equal the amount left for charitable purposes alone. This result is mainly due to the failure of a cotton mill company at Hull which owed the estate £62,000. The charities, therefore, will receive less than was expected, and as Mr. Weston directed that the charitable bequests should take precedence of the rest the unfortunate private legatees will get nothing.

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Reviews and Notices of Books.

Obstetric Surgery. By EGBERT H. GRANDIN, M.D., Obstetric Surgeon to the New York Maternity Hospital, &c., and GEORGE W. JARMAN, M.D., Obstetric Surgeon to the New York Maternity Hospital, &c., with Eighty-five Illustrations in the Text and Fifteen Photographic Plates. Philadelphia: The F. A. Davis Company. London: F. J. Rebman. 1895. 14*s.*

THIS book is written more especially from a teaching basis, and, as the authors say, its keynote is *election* in obstetric surgery. They inculcate the importance of early recognition of the several factors in each case so that timely aid may be given with the advantages incidental to everything done with deliberation. The opening chapter on Obstetric Asepsis and Antisepsis is excellent. While admitting that it is possible to be aseptic without the use of antiseptics, the authors nevertheless express the opinion that, having regard to the circumstances of actual practice, it is essential for the obstetrician to use antiseptics if he would be aseptic. Much good advice is given as to the details of the methods to be adopted in securing safety in this matter under three heads—(*a*) the asepsis of the accoucheur and attendants; (*b*) the asepsis of the lying-in woman; and (*c*) the asepsis of the instruments and accessories. The use of vaseline as a lubricant is condemned. "The vaseline pot should, once and for all, be banished from the lying-in chamber." The use of vaseline or any similar substance for the finger has always seemed to us to show a probably weak place in the technique of aseptic midwifery. The authors recommend creolin for the purpose in question. As regards the induction of artificial abortion we cannot approve of the method advised—namely, the introduction of a powerful steel-branched dilator beyond the internal os and the dilatation of the os to the extent of an inch and a half to two inches. "The cervical muscle is made to yield to the applied pressure; the aim is not to rupture the cervix." We should say that this may be freely translated to mean that the difficulty is not to rupture the cervix completely. Some tearing of the tissues is inevitable, if the dilator mentioned be used as the authors direct. Many of the plates illustrating obstetric operations with the artificial pelvis are good and likely to assist the student, but we cannot say the same of several photographs of actual patients, which disfigure the book. Plate III., for instance, supposed to illustrate the mode of determination of the diagonal conjugate, is a photograph of a woman in the lithotomy position with the knees separated. Anyone unfamiliar with the subject would learn far more from a mere diagram, properly annotated, than from inspecting these photographs.

The Treatment of Pulmonary Consumption: a Practical Manual. By VINCENT DORMER HARRIS, M.D. Lond., F.R.C.P., and EDWIN CLIFFORD BEALE, M.A., M.B. Cantab., F.R.C.P. Lond. H. K. Lewis's Practical Series. 1895. pp. 483. Price 10*s.* 6*d.*

IT is a bold venture to add yet another to the many works written on the subject of pulmonary tuberculosis. The authors state in their preface: "With increase of information as to the pathology of tuberculosis in general, and of pulmonary consumption in particular, our perception of the conditions under which the disease arises becomes clearer, and the question of its treatment requires of necessity from time to time to be reconsidered." A very few points in the pathology of tuberculosis, especially its relationship to food, the effects of sunlight on the organism, the harmful results of overcrowding, and possibly one or two others have become somewhat clearer during the last ten years. But in treatment we stand precisely where we have stood for some long time, and a very careful study of the book before us shows no addition of any real value at all in the available means of attack on the disease, apart, of course, from sanitation. With all that the authors have to say on preventive measures, the disinfection of sputum, &c., we entirely agree. But a book that adds nothing new may, from the simplicity and clearness of its method of statement, be of great service. The very large experience of both the authors at the City of London Hospital for Diseases of the Chest, Victoria Park, enables them to lay down lines of treatment with much authority. Chapters VIII., IX., and X. (pp. 162-397), on the Complications of Phthisis and their Treatment, the Treatment of Symptoms, and Special Methods of Treatment, are well worth careful reading. These undoubtedly are of value.

Much of the earlier part of the book, where the authors leave actual clinical experience, is very indefinite. They have been at the trouble once again to compile statistics of relative incidence on males and females—from 808 males and 244 females—quite regardless of the fact that such figures have no value of any kind at all; and, if possible, less value still can be attached to figures stating "age of onset," compiled from a study of 164 males and 100 females. The numbers are hopelessly small, and at least the same number of males and females in each case might have been taken.

Susceptibility is defined on p. 68 as low *resistance potential*, which somehow does not seem to help much. The indefiniteness shows itself at many points. "Again, one is asked as to boys who are potentially delicate, should they go to boarding school, &c."? What is a potentially delicate boy? On p. 119 we read: "The quickest form of blister which we have met with is produced by the plaster called Canthos.'" We are told nothing of what is in the plaster, or where it is made, or wherefore it is quick. On the other hand, nothing could be better than the short, pithy description of the kind of bedroom best suitable for a phthisical patient (p. 133).

It is an exceedingly unequal book. If cut down to half the size by the removal of all the material that does not directly bear on treatment, and much of the material that does, it would be improved. In a second edition it would be well to amend such slips as "coniosus pulmonum" (p. 64), which looks odd, and "pacchydermia laryngis" (p. 231). Lastly, we would suggest to the authors to reconsider the plan of sending patients in autumn (p. 141) to the south coast of Wiltshire.

A History of the Chronic Degenerative Diseases of the Central Nervous System. By THOMAS K. MONRO, M.A., M.D. Glasg. Glasgow: Alexander Macdougall. 1895.

THIS interesting and readable little volume consists of a series of short essays on the historical recognition of the various degenerative diseases of the central nervous system, reprinted from the *Glasgow Medical Journal*, with a few footnotes by Professor Gairdner. There is no pretence of original matter, the essays being simply critical studies in medical history, and they are very pleasant reading. The two most interesting essays are those on Tabes Dorsalis and Progressive Muscular Atrophy. In the case of the former disease credit for its recognition has been claimed for three observers of three different nationalities. Dr. Monro, while admitting the claims of Todd as regards the association of muscular incoördination with disease of the posterior columns of the cord (1847), yet assigns to Romberg the credit of first describing tabes dorsalis as a morbid entity (1851), his clinical picture being subsequently added to by Duchenne. The discovery of the true pathology of progressive muscular atrophy is assigned to Luys rather than to Lockhart Clarke, though the weight of Charcot's authority was required before the primary nature of the lesions in the anterior cornua was

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generally admitted. The other essays are short, and deal with spastic paraplegia, ataxic paraplegia, bulbar palsy, disseminated sclerosis, and allied affections; they are well written and to the point, and we can commend the book to the student of medical history.

Dissections Illustrated: a Graphic Handbook for Students of Human Anatomy. By C. GORDON BRODIE, F.R.C.S. Eng., late Senior Demonstrator of Anatomy, Middlesex Hospital Medical School; Assistant Surgeon, North-West London Hospital. Part IV., *The Abdomen.* London and New York: Whittaker and Co. 1895. Price of Part IV., 10*s.*; price of the work complete in one volume, £2 2*s.*

THE conspicuous excellence apparent in Parts I., II., and III. of this collection of anatomical plates has been fully maintained in Part IV., with which the work is brought to a close. Although the abdomen does not involve such minuteness of descriptive detail as is inevitable in the case of the head and neck Part IV. contains nearly as many pages as its predecessor, for such is the thoroughness with which the subject is treated that twelve single-page coloured plates, two double-page coloured plates, and thirteen diagrams are devoted to it. All the plates are two-thirds natural size, a reduction of scale which does not interfere with clearness, while it has the advantage of rendering the volume portable and convenient. The first, second, and third plates, supplemented by two diagrams, show successive views of the ischio-rectal fossa and male perineum. These are followed by a double-page plate giving a superficial view of the front of the abdomen—the left side after removal of the subcutaneous tissue, and the right side with the external oblique divided and reflected to show the internal oblique. After this comes another double-page plate in which in the right side the internal oblique has been divided to expose the transversalis, while on the left side the rectus, the pyramidalis, and the fascia transversalis are displayed. The next five plates give successive front views of the viscera: with these are joined eleven diagrams, two of which represent Professor Cunningham's frozen sections through the right and left mid-Poupart lines. The posterior wall of the abdomen comes next, the inferior vena cava and the psoas muscles on one side being removed to expose the semilunar ganglia, the lumbar plexus and the internal iliac vessels with their branches. The three concluding plates (with two diagrams) are side views of the male and female pelvis after removal of the innominate bone. We have on former occasions [1] called attention to the merits of this atlas and it now only remains to congratulate Mr. Brodie on the completion of a work which is at once reliable, convenient, and well executed both in respect of the coloured lithographic plates, the diagrams, and the explanatory references. Such aids to memory are helpful even to the student, and to the practitioner they are indispensable, for when visits to the dissecting room are no longer practicable the recollection of anatomical details fades from the mind all too quickly. It is fortunate, therefore, that by means of occasional rehearsals with bones and accurate drawings those whose student days are over can find an effective method of refreshing their knowledge of anatomy.

Adherent Pericardium. By JOHN F. H. BROADBENT, M.D. Oxon., M.R.C.P. Lond. Pp. 126. London: Baillière, Tindall, and Cox. 3*s.* 6*d.*

THE diagnosis of adherent pericardium is admittedly often difficult; in not a few cases it is impossible. Not a sign or a symptom may have been present during life to indicate the considerable adhesion found at a necropsy. Dr. J. F. H. Broadbent gives fully the clinical history of thirteen cases of adherent pericardium, eleven of them followed by post-mortem examination, with brief comments on each. The heart in adherent pericardium may be of any size; it is not invariably hypertrophied, as Hope taught. It is very usually dilated. "During the attack of pericarditis the heart becomes considerably dilated in consequence of the myocarditis accompanying it; after the subsidence of the attack the heart remains enlarged. It is obvious that the fact of the heart being enlarged and dilated would favour the formation of adhesions by the approximation of the walls of the heart and pericardium. A further contributory cause will be the fact that the heart in a condition of dilatation beats with less force and has less power to free itself from adhesions when they form." Stress is rightly laid on the very large amount of dilatation which may occur in the acute stage of pericarditis—a dilatation so extreme that not rarely it has been mistaken for fluid in the pericardial sac.

In addition to the well-known systolic retraction of the intercostal spaces in the region of the apex-beat, attention is drawn to the retraction of the posterior or lateral portions of the thoracic walls as an important sign in some cases of adherent pericardium. "On a more careful scrutiny it will be found that there is a tug on the false ribs during the cardiac systole and a sharp rebound during diastole which can be felt as well as seen when the hand is laid flat upon the chest wall at the spot. It is most marked when a deep inspiration is made." Dr. Walter Broadbent has also recorded two cases in which this sign was unusually well marked.

Cardiac enlargement, especially hypertrophy and dilatation of the right ventricle, if there is no valvular disease and no disease of lung or kidney to give rise to such enlargement, is a sign of value, and at once suggests adherent pericardium. The author very lucidly traces in his analysis of his cases the steps leading to the condition.

In the account of the interpretation of symptoms nothing new is added. "When the symptoms are those of right ventricle failure, and are more severe than the physical signs present would lead one to expect, adherent pericardium must be thought of. It is the right ventricle more especially that is seriously embarassed and hampered by pericardial adhesions." This is so, no doubt; but failure of the right ventricle out of proportion to physical signs may be due to other causes. It is not the fault of the author that he cannot give a vivid picture of symptoms which are almost invariably indefinite and vague.

In the section on Prognosis, Dr. Broadbent says, "one is forced to the somewhat unsatisfactory conclusion that it is only in cases in which adherent pericardium gives rise to no definite signs or symptoms in life to indicate its presence that the prognosis is good." The truism tallies with experience in the wards and post-mortem room, but does not at all explain the paradox that some cases of markedly adherent pericardium give rise to no signs or symptoms whatever, or the extraordinary examples that occur from time to time of calcareous degeneration of large areas of the pericardium which were entirely unsuspected and caused no discomfort during life.

The work is an excellent monograph. Wherever clearness is possible the author is conspicuously clear.

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[1] THE LANCET, Dec. 31st, 1892, and Nov. 17th, 1894.

MEDICO-PSYCHOLOGICAL ASSOCIATION (SOUTH-WESTERN DIVISION).—A meeting of this branch of the Medico-Psychological Association is to be held at Barnwood House, Gloucester, on Tuesday, April 14th. After the election of new members, "The Report of the Committee on Criminal Responsibility" will be considered, to be followed by a discussion on "The Nursing Staff in Asylums."

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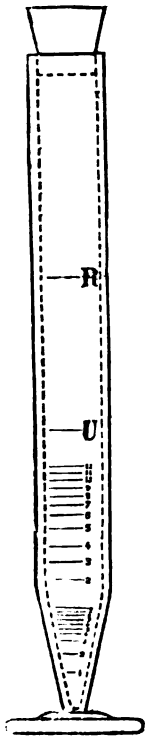
New Inventions.

A MODIFIED ESBACH'S ALBUMINOMETER.

ESBACH'S quantitative estimation of albumin in urine is based on the volume occupied by the suspended flocculi, which after coagulation are allowed to subside for a definite period. It requires for its performance only a graduated subsidence tube and a coagulating solution containing ten grammes of picric acid and twenty grammes of citric acid in a litre of water. The urine having been poured into the tube up to the mark U, and the reagent subsequently added till it reaches the mark R, the tube is closed with a caoutchouc stopper and its contents are mixed by reversing the tube several times without shaking. The tube being then placed upright, the height of the coagulum is read off after twenty-four hours, the figures indicating parts of dry albumin by weight in a thousand parts of urine. At my suggestion Messrs. Sumner and Co. of Liverpool have made this tube in a modified shape, and have continued the graduations below the unit mark whereby the quantitative estimation of albumin is rendered accurate even in the amount of one-tenth of a gramme per litre. In the original round-ended tube accuracy was impossible in the finer degrees of albuminuria, the only graduation below 1 being ½. I think that in practice the modified form is a distinct improvement on the older pattern.



CHARLES W. HAYWARD, M.D. Edin., D.P.H. Cantab.
Grove-street, Liverpool.

DUMMY FOR TEACHING PALPATION OF THE NASO-PHARYNX.

MESSRS. MAYER AND MELTZER, of 71, Great Portland-street, W., have constructed, under my direction, a dummy for reproducing the sensations experienced by the finger when introduced into the naso-pharynx in the state of health and in certain disease conditions, such as adenoid vegetations and nasal polypi projecting through the posterior nares. It is composed of celluloid moulds with different linings to represent the various conditions, the whole being contained in a metal case. The object is to give students a preliminary idea of palpation of these parts.

Brighton. E. CRESSWELL BABER, M.B. Lond.

ARMY MEDICAL SCHOOL, NETLEY.

TERMINATION OF THE SEVENTY-FIRST SESSION OF THE SCHOOL.

THE seventy-first session of the Army Medical School was brought to a conclusion on Friday, Jan. 31st, when the prizes gained by the young officers were distributed by General the Right Hon. Sir Redvers H. Buller, V.C., G.C.B., K.C.M.G., Adjutant-General to the Forces.

The duties usually ascribed to a chairman were performed by Surgeon-Major-General Giraud, Principal Medical Officer, Netley, and on his entry into the lecture theatre Sir Redvers Buller was accompanied by Lieutenant-General Davis, C.B., Surgeon-Major-General Hooper, I.M.S., Surgeon-Major-General Jameson, Surgeon-Major-General Markey, C.B., Mr. Makins of St. Thomas's Hospital, and the military staff of the Royal Victoria Hospital.

Surgeon-Major-General Giraud welcomed Sir Redvers Buller, Lieutenant-General Davis, and the other officers present, and expressed regret that Sir William McKinnon, K.C.B., Director-General of the Army Medical Department, owing to indisposition, was unable to attend.

Professor Notter then read the list of results, which was as follows:—

List of surgeons on probation of the Medical Staff of the British Army and of the Indian Medical Services who were successful at both the London and Netley examinations. The prizes are awarded for marks gained in the special subjects taught at the Army Medical School. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are shown in the lists which follow:—

BRITISH MEDICAL SERVICE.

Jan. 31st, 1896.

*1. Brereton, F. S.	5311	6. Waring, A. H.	4128
2. Statham, J. C. B.	4438	7. Hooper, A. W.	4120
3. Cooper, R. M. C. H. ...	4398	8. Ward, W. A.	4094
4. Hayes, E. C.	4322	9. Forrest, E. G.	3876
5. Probyn, P. J.	4274		

INDIAN MEDICAL SERVICE.

Jan. 31st, 1896.

†1. Cochrane, A. W. R.... ...	5139	10. Dawes, C. D.	4219
2. Clemesha, W. W.	5039	11. Perry, E. L.	4193
‡3. Bakhle, C. R.	4994	12. Pinchard, M. B.	4189
4. Black, J. A....	4913	13. Niblock, W. J.	4175
5. Wilson, R. P.	4703	14. Harrison, C. B....	4173
§6. Lindesay, V. E. H.	4670	15. Payne, E. L. F.	4093
7. Robertson, J. C.	4459	16. Lalor, N. P. O'G.	4040
8. Rainier, N. R. J.	4430	17. Symons, T. H....	4025
9. Kukday, K. V.	4427	18. Rost, E. R....	3813

* Gained the Martin Memorial Medal and the Parkes Memorial Medal.

† Gained the Second Montefiore Prize.

‡ Gained the Herbert Prize of £220, the First Montefiore Prize of 20 guineas, the Prize in Pathology presented by Surgeon-Major-General Hooper, I.M.S., and the De Chaumont Prize in Hygiene.

§ Gained the Maclean Prize for Clinical and Ward Work.

After distributing the prizes Sir REDVERS BULLER briefly addressed the young officers. He observed that they belonged to a noble profession and were affiliated to one which was older, because men certainly began to quarrel with each other before they cured each other's wounds. They had a profession of their own, and according to the manner in which they discharged the duties of that profession would they find themselves esteemed by those amongst whom they lived. A correspondence had lately been going on in some newspapers, and ways, some defined and others extremely undefined, had been suggested by which the members of the Army Medical Staff might take a greater share in the work of the regular army. He ventured to think, however, that no one was more looked up to by those amongst whom he lived than a good doctor. A vacancy would shortly occur in the post which, as Director-General, Sir William McKinnon now held, for his time was fast running out. Several gentlemen had already recommended to him (Sir Redvers Buller) this or that officer to be Sir William McKinnon's successor. In reading the letters of recommendation he had been struck very forcibly that though the qualifications of each of those officers were variously stated the letters all began with the same thing: "He's a right good doctor." That was the key to a much more comfortable state of things between the medical staff and the army generally. Some years ago the whole of the army was split up into a host of departments, many of them managed by civilians who were out of touch with the army; there were many cross interests, and people sought advancement by forwarding these various interests. Of late years, however, there had been a great change, and the various branches of the Army were all working together better and with one end in view. That spirit, he was happy to say, was still growing. If those present bore in mind what he was saying to them and remembered that all the departments were most respected where they were most efficient, they would do a great deal to conduce to the attainment of the one common object which they had in view. They belonged to a department which fulfilled its duties well in all parts of the world, and though the opportunities afforded them were limited in this country they did their duty as well as any other branch of the service. He felt sure that their department of the Army would be all the better for the presence in it of those to whom he had just distributed the prizes.

Surgeon-Major-General Jameson proposed a vote of thanks to Sir Redvers Buller for having distributed the prizes. He expressed the thanks of the officers of the Army Medical School at Netley and the whole of the Medical Department for the compliment he had paid them by his presence there that day.

The proceedings were then brought to a termination by Surgeon-Major-General Giraud, who wished the young officers long life and happiness. A large company was afterwards entertained at luncheon by Surgeon-Major-General Giraud and the officers of the Army Medical Staff.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 8, 1896.

ON the previous page of our present issue we print a report of the few remarks which the Adjutant-General to the Forces addressed to the young officers on the occasion of the conclusion of the seventy-first session of the Army Medical School, Netley. We observe with regret an absence of expressions of proper encouragement to those setting out on a new career, and a lack of sympathy with their legitimate aspirations. Sir REDVERS BULLER is known to be a man of few words, and maybe he had a more kindly feeling for the members of the medical services than he led his hearers to suppose, but he can only in such a case be judged by his utterance, and we are pained at the display of indifference towards the honourable wishes of the services which he thought fit to make.

The text of his address, more than once reiterated, was: Be good doctors; and though we know how absolutely essential is the professional element in the army medical officer's career, yet it is an obvious fact, and the Adjutant-General must know it, that something more than being a good "doctor" is required of the officers who have the medical care of our troops. Though Sir REDVERS BULLER did not actually say so, yet the impression which he must have left on his audience—which he seems, indeed, to have designed to leave on them—was that the professional qualification was the only one which would be regarded at headquarters in the consideration of promotions and rewards. He admitted that the medical officers of our armies deserve respect and honour for their capabilities as "doctors," and there he paused. Sir REDVERS BULLER'S words and our comments thereon raise no questions of medical titles or military sentiment. We are speaking to facts concerning which facts he most unfortunately omitted to speak. It cannot be that the Adjutant-General is ignorant of the good work which the medical officers have done and are doing when entrusted with the training of the Medical Staff Corps, of the labours which devolve on them in the carrying out of discipline, of their work as paymasters, or of their responsibilities in connexion with clothing, equipment, instruction in drill, and the general military routine. He must know that in times of peace the medical care of the sick is after all but a small portion of the work which is entrusted to, and expected from, the officers of the Army Medical Staff, whilst in time of war the important duties which they perform, in addition to those entailed on them by their professional qualifications, must be equally well known to him. A good "doctor" is a good thing, and the best "doctor" that can be obtained will always be the best man for a post that is essentially a medical post, other things being equal; but the reservation covers a great deal. The multifarious official duties required of the members of the Army Medical Staff cannot be discharged by gentlemen happening to possess an intimate acquaintance with pathology or surgery. They must possess these qualities, but they should possess others, inasmuch as other than medical duties are required of them.

The words of the Adjutant-General, ignoring these obvious facts, have been spoken at an inopportune moment. We are now within a few days of the competitive examination for the entrance to the probationary course at Netley, and rumours have reached us of a paucity of candidates, notwithstanding the overcrowded condition of the medical profession.

HAPPY, indeed, are those public men who are guided by wisdom when dealing with important questions, their decision of which one way or another may involve far-reaching consequences. Such a stage seems to have arrived in the history of the Metropolitan Hospital Sunday Fund, if we may judge from the protracted sitting of the Council on Thursday, Jan. 30th, and it is almost superfluous for us to draw our readers' attention to the unusual interest attaching to the two subjects of debate. After the formal business of electing the committees and secretaries for the ensuing year had been disposed of Dr. J. G. GLOVER moved for the appointment of a sub-committee to investigate and report on the out-patient departments of hospitals, and in support of his motion he gave some startling statistics. The figures, he admitted, were rough, but they were based on the Fund's own statistics. He stated that last year no fewer than 1,052,932 out-patients were treated in the London hospitals exclusive of the endowed charities of St. Thomas's and St. Bartholomew's Hospitals, and 252,112 in the various dispensaries, 2844 of these latter being midwifery cases. The total expenditure of the out-patient system amounted to £134,690. Dr. GLOVER'S statements gave rise to an animated discussion, and it was eventually decided to instruct the Committee of Distribution to fully consider the matter and to invite the coöperation of other members of the Council. The second matter dealt with the important question of endowed hospitals and their participation in the awards of the Fund, Mr. ACLAND asking that a committee consisting of six members of the Council should be appointed to consider and report as to whether grants could not be made under the present system to Guy's Hospital and St. Thomas's Hospital adequate to their needs, and, if not, whether any and, if so, what alteration should be made in the Laws of Constitution. He pointed out that Guy's Hospital was the second largest in London and St. Thomas's Hospital the third largest, and he asked for some reason why St. Thomas's Hospital did not appear in the list of awards. His motion was eventually carried by five votes to three in a Council which, at the hour of half-past five, had dwindled to ten members including the chairman.

Both these questions require the serious consideration of the friends and supporters of the Fund, inasmuch as the success which has attended its labours in the past is due in a very great measure to the confidence which the public has always placed in its administration, and, whatever may be the report of the two committees, a full knowledge of the facts in each case will only increase that confidence. There can be no doubt that the out-patient departments of hospital charities are greatly abused. The

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misuse of them by middle class patients is only too well known, and it is certainly time that something should be done to put a stop to the practice. The other evils enumerated by the mover of the resolution are promiscuous crowding and consequent danger of infection, overlapping and need of restrictions to avoid patients going the round of the hospitals, the rapid diagnoses that medical officers are sometimes compelled to make, and the long hours that patients have to wait. As administrator of the finances entrusted to its care the Hospital Sunday Fund owes to the public the duty of seeing that its moneys are employed in the support of none but deserving causes, and an exhaustive inquiry into the working of the out-patient departments must have a beneficial effect alike on hospitals, patients, and subscribers.

To the hospitals concerned the second question which was raised by Mr. ACLAND is of vital interest, and the matter demands immediate and most careful consideration at the hands of the committee. The plea of the endowed hospitals is that the depreciation in the value of land and the lowering of agricultural rents have seriously diminished their revenues. On the other hand it is said that the endowed charities should not be placed upon an equal footing with charities which rely for their support entirely on public subscriptions, because to a certain extent the endowed charities have an assured income. There is, however, another aspect of the question and, we think, an important one. In the days of prosperity the endowed hospital can keep up a certain number of beds, but when funds are wanting these beds cannot be used. This is the position at St. Thomas's Hospital. It is a sad thing to see fully-equipped beds lying idle in the wards of a hospital, and for this reason alone we trust that the committee to inquire into the matter will be appointed forthwith.

BOTH coroners and juries are combining to make things very unpleasant for the unqualified assistant and for the principal whom he represents. The last instance brought to our notice is that of an inquest held by Mr. WYATT at Peckham on the body of ALICE EMILY HALL, aged eleven weeks, who had suffered from whooping-cough and been attended by Mr. DAVIS. One day the mother, noticing a great change in the child, ran off for Mr. DAVIS. Not finding him in, she went to the surgery of Mr. HENTSCH, who also was out. But she saw Mr. HENTSCH'S assistant, who agreed to go to see the child. There is a discrepancy of evidence as to whether the mother represented the child as actually dead. Mr. HENTSCH says she did, and that his assistant only went as an act of humanity. But the mother denies this, and says she represented the child as ill and that she took the assistant for a regular medical man. Mr. HENTSCH admitted that his assistant, a medical student of St. Thomas's Hospital, was not qualified, but said that he acted strictly under his orders. He even went so far as to say that he did not visit patients, and that in this case he merely performed an act of humanity in going at the mother's request. The coroner said that it was a case of a non-qualified practitioner again, and it was not fair to the public or anyone else for non-qualified men to attend patients, and that such cases were not much less than frauds. He added that such use of unqualified assistants took work out of other medical men's hands. Several jurymen intimated their concurrence, one saying that if a medical man had been called in at first life might have been saved, and the coroner said "he would do all he could to prevent these non-qualified men practising."

In connexion with this case our attention has been drawn by a correspondent to the difficulty which qualified assistants have in finding occupation. The writer says that he has replied during the past six months to 107 advertisements for assistants and has received only one answer. He adds that he could give other instances of the sort, and maintains that the unqualified assistant, often a medical student, is the worst offender. Our correspondent's unsuccess is certainly very remarkable, and if at all common would go far to justify the prevailing impression that the unqualified assistant blocks the way. And there is no doubt that he has largely superseded the qualified men, and it is a great hardship that he should do so. The time has gone by when the unqualified assistant can act as if he were qualified, and it would be an obvious and gross hardship on young qualified men, who have gone through all the exacting and expensive curriculum and examinations now in force, to find that their work could be done by those who have not fulfilled the law's requirements of qualification. Men who do not see their way clear to complete their education and acquire legal status should not attempt to enter the profession, otherwise they run the risk of being brought into an illegal and false position. The case of the principal who employs an unqualified assistant is almost more painful and embarrassing than that of his unqualified assistant. He is the responsible person. He receives the censure of coroners and dissatisfied jurymen, and in any case is liable to more serious consequences. We are quite aware of his excuses and the line of his defence—the chief being that what with the competition of open hospitals, out-patient departments, druggists, and commercial companies catering for medical attendance, he cannot pay his way and keep a qualified assistant. We admit the truth of much of this contention and the hardness of his case. But even so things must be righted in a right way. The agencies that are abroad demoralising and destroying general practice must be met in a legal way. Meantime it is evident that medical men must either attend patients themselves and use unqualified persons in an entirely subordinate way as mere instruments of their own treatment, or be prepared to find themselves censured by juries and possibly defendants in actions at law.

We should like to make one suggestion with regard to such instances as the one referred to—i.e., that coroners should bring out more completely the whole history and facts of the cases of unqualified practice which they encounter. In this case neither the medical man in previous attendance nor the unqualified assistant appears to have been examined, and the nature of the attendance given to the deceased was left very much in the dark. It is only fair to remember that the parents are very generally more to blame than the medical attendant. It seems to us that in this case if the unqualified assistant had been called he would have been found to have acted in the only way open to a humane man, while Mr. HENTSCH would have been seen to deserve none of the coroner's strictures, delivered in the proper spirit, but hardly in this instance fortunate in their direction.

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Annotations.

"Ne quid nimis."

EXAMINERS AND EXAMINEES.

IN another column we print a delightfully naïve and ingenuous letter forwarded to us by some medical students who are now being examined at the Intermediate M.B. Examination at the University of London. They seem to be under the impression that a paper set for them in organic chemistry should have some relation to the principles of that science or should in some way have a connexion with medical science or practice. The examiners, however, have given them a rough awakening by setting questions of a strictly technical character, such as we should expect to see put before candidates for the Fellowship of the Institute of Chemistry. We should have thought that a study of former papers would have taught them to appreciate the personal equation of the examiners, and if they have failed to do so it is certain that they will never again neglect such an obvious course of proceeding. It is, however, strange that a paper full of technical details of work should have passed the censorship of the Senate, which we have always supposed was carefully and regularly exercised. In the first question, for instance, it is assumed that the nature of the constitution and the molecular weight of glycocine are quite settled, but experts in organic chemistry tell us this is not the case. The second question can best be answered by referring the examiners to a dictionary of chemical manufactures; and if it is understood that a student must have prepared some organic body it would surely be fairer to him to have had some choice of substances, or even a list in the syllabus of those he was expected to have made. It is quite possible that he may have prepared many important substances of some medical interest and yet have forgotten to make aniline. It is because papers such as we are criticising are set to medical students that the medical teachers in London are almost without exception supporters of a teaching university. We may safely say that no such questions would pass a committee of teachers.

HYDROPHOBIA AND ITS PREVENTION.

VALUABLE lives are every year thrown away which could be easily saved, and one of the cruellest diseases from which man can suffer is increasing in our midst because we hesitate to impose the simplest of remedies. Rabies is at present widely prevalent in certain places, such as the county of Surrey, and hydrophobia, together with the almost equally terrible fear that this disease may have been contracted, is increasing amongst us. This, too, is the case when we have ample evidence to show that the remedy is at hand, and that it could be applied without difficulty and without resort to anything that even borders on cruelty. The first remedy is a reasonable licensing of dogs, the licence to be indicated by a metallic pendant bearing the year for which the licence is available fixed to a collar engraved with the owner's name. That simple remedy would at once get rid of ownerless dogs, who are the most dangerous of all, and it would give to owners a sense of responsibility as to the health of their dogs which many do not at present possess. The second is a rational system of muzzling by means of a cage-muzzle, by which no dog having sufficient intelligence to be worth keeping will be materially inconvenienced after a few days. Many dogs, indeed, see their muzzle brought out with indications of delight, for they know it means an outing in company with their master. But it is irrational to muzzle dogs in extra-metropolitan Surrey, whilst there is no muzzling in metropolitan Surrey or in the counties bordering on Surrey. No greater mistake was made than when the power of muzzling was conferred on the local as distinguished from the imperial authority. If a general muzzling order for England, Scotland, and Wales, for example, were enforced for twelve months rabies would be practically eradicated and nothing would remain except to prevent its reimportation. At the International Medical Congress held in London in 1881 Dr. H. van Cappelle of The Hague brought forward statistical and diagrammatic evidence which went to show the value of general as opposed to local muzzling. Thirty-six communes in Holland were infected with rabies towards the close of 1875, the cases being fairly well distributed over different provinces. In these provinces muzzling was ordered, and roaming dogs wearing no muzzle were destroyed. The disease steadily increased, and in 1876 as many as forty-nine communes were affected; but the disease was differently distributed—nearly the whole of it was in the provinces bordering on Belgium. In 1877, stringency of muzzling still being retained, only fourteen communes were affected, and these were exclusively on the Belgian and Prussian frontiers. In 1878 only four communes were affected, and these again were North Brabant, abutting on Belgium, and Limburg, on the Prussian frontier. In 1879 not only was there an increase, but the centre of the country became again infected, and it was found that this was due to the importation of dogs from England. Again, in 1880 a restricted amount of the disease was once more confined to the Belgian and Prussian frontiers. Thus we find a certain success as the result of muzzling continued over a series of years, but also failure and needless continuance of the muzzle because there was no possible control over frontiers and no means had been adopted for stopping the importation of the disease. This leads us to our fourth remedy, namely, the quarantining of all dogs imported into Great Britain—a system that can be applied where there is a sea frontier with infinitely greater facility than where there are any land frontiers. But efficiency as to muzzling and quarantine mean transference of the powers as to rabies to the Agricultural Department, acting, perhaps, in concert with, or on information supplied by, the Local Government Board. We note that at the last weekly meeting of the London County Council an urgency report of the Public Control Committee, presented by Dr. Collins, recommending that all dogs in the county o London (excepting the City and its liberties) should be muzzled after the 17th inst., was agreed to.

KITCHEN BOILER EXPLOSIONS.

THE frosty nights of the past week should serve as a warning to householders to keep a sharp look-out as to the possibility of the pipes of their hot-water apparatus being choked with ice. Ignorance of the conditions under which an explosion may occur can no longer be pleaded as an excuse for neglecting to take proper precautions. The instructive experiments carried out at the instance of the Manchester Steam Users' Association have proved beyond doubt that kitchen-boiler explosions are not due to the instantaneous generation of a large amount of steam through the rush of cold water into a red-hot boiler, but to the gradual accumulation of steam pressure in the boiler owing to the circulation being stopped by ice in the pipes. The most obvious remedy, therefore, is a good safety-valve, whereby this pressure may be relieved and an explosion prevented. If a safety-valve be not provided the fire should never be allowed to go out, so that the circulation of hot water is not interrupted. In the event of the fire having gone out it should be ascertained before lighting it that water flows from the hot-water taps, and after the fire is lighted it should be kept low for a time, until the pipes and the water flowing from the taps give evidence

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of gradual heating and of circulation being established. Such are the directions, in brief, of a placard which we have received from Mr. Lavington Fletcher, the engineer of the association already alluded to. We should like to see a copy of it placed in the hands of every householder, and the suggestion of Mr. Fletcher that it should be printed in large clear type and posted in prominent positions either by local authorities or private philanthropic individuals for the general information of the public is an admirable one. We venture to think that the press would be the best means of educating the public in this matter. Thus if every paper in England would print a paragraph in bold type, which need not occupy more than ten lines of space, the information that is required would soon be patent. It is embodied in the conclusion of the placard that a safety-valve should be fixed to every kitchen boiler and every low-pressure heating boiler as soon as possible, and as safety-valves are not applicable to high-pressure heating boilers the fire should be kept up, and the boiler as well as the entire range of pipes should be kept hot, as long as frost lasts. The latter precaution would apply also to low-pressure boilers in the absence of a safety-valve.

"AND STILL THE WONDER GREW, THAT ONE SMALL HEAD COULD CARRY ALL HE KNEW."

No more droll illustration of the incompetence of outsiders to deal with questions of disease and its medical treatment has appeared for some time than the observations of Mr. Demetrius Boulger in the *Contemporary Review* about antitoxin and diphtheria. The *St. James's Gazette* correctly says that they may well cause a sensation in medical circles. The sensation is one of momentary wonder at the silly way in which patients reason and write about what they do not understand. If Mr. Boulger had appealed to any medical man, or consulted any medical book about diphtheria, he would have found that the symptoms which he describes are—commonly enough, unhappily—the well-known results of an attack of that disease, had been recognised as such long before antitoxin had ever been heard of, and consequently could not be ascribed to the use of that or any other remedy with which we are acquainted. It is no indictment of antitoxin as a remedy, but an exhibition of the writer's transparent ignorance of what he is writing about—so often shown by those who write "in transparent good faith"; but then we suppose that as medical journalists we are prejudiced and our opinion on a medical subject cannot count for much and is of little value!

THE SITE OF ST. THOMAS'S HOSPITAL.

As is well known, St. Thomas's Hospital occupies the Thames bank immediately opposite the Palace of Westminster and has a terrace-walk between the main building and the river extending nearly half a mile from Westminster-bridge to Lambeth-bridge. The land front of the Hospital abuts on the thoroughfare now called Lambeth-palace-road. In the "sixties," however, it was known as New-palace-road, and was much shorter. A little way past Paris-street the thoroughfare then narrowed down to a quaint, secluded footway called Bishop's-walk, on the left hand side of which was a fine old wall, having a crested top and serrated string course and broad base, and forming the boundary of the Archbishop of Canterbury's grounds. On the right stood some picturesque houses, no doubt once upon a time first-class residences, but already trade uses had crept in. One of the largest with its grounds had been converted into a barge-building establishment; Messrs. Searle and Sons had a boathouse there for the convenience of the rowing fraternity; another house was occupied by a picture-frame maker, while a grape vine covering the front of another gave a semi-rural character to the spot. Coming from Westminster-bridge Stangate then had houses on both sides of the way, those on the right hand covering the ground where the Hospital railing now stands. They were houses of a comparatively mean character. Two of them were constructed of wood and had a high-pitched tiled roof; another was occupied, not by a barber-surgeon, but by a barber-sculptor, who, besides beautifying the heads of his customers with the scissors, sometimes modeled them life-size in plaster and exhibited them in his window. Continuing from the wooden houses past a long bit of dead wall we presently came to Stangate draw-dock, then the "Old Mitre Tavern" and Jennings' engineering works, both of which have crossed over the way. Jennings' works were burnt out about 1864–5. Next came large steam sawing mills, a firm of lead merchants, and last, touching Bishop's-walk, a public-house, "The Two Sawyers." We are able to write thus precisely of a site a long time since utterly transformed because we have before us a very clever etching by Mr. William Strudwick, who has reproduced the spot on a copper plate from water-colour sketches and photographs taken at the time of its previous picturesqueness. The part shown in the etching is the river side of Bishops'-walk, mainly in possession of the barge-builders, behind whose building sheds rose the trees standing in the Archbishop's grounds, which had to be cut down when the road was widened and a new boundary wall built. In the distance is a part of Lambeth Palace, the principal feature being the Lollards' Tower. The whole *locale* was one of the most picturesque in the London of the last generation, and there may be, we think, many of our readers who will be happy to possess a clever reminiscence of it. The etchings are on sale at the price of one guinea at the printshop of Messrs. Peake and Sons, Westminster Bridge-road, facing the hospital.

TREATMENT OF GRANULAR OPHTHALMIA BY LIQUID VASELINE AND IODINE.

DR. E. A. NEZNAMOFF of Kharkoff has employed the following treatment in cases of granular eyelids. It consists in painting the mucous membrane of the eyelids with a solution of pure iodine mixed with liquid vaseline, which is also called "oil of vaseline" (*oleum petrolei*), twice daily. In chronic forms, as cicatrices from granular ophthalmia with pannus, infiltrations, and superficial opacities of the cornea, he employs liquid vaseline containing ¼ to 1 per cent. of iodine. By the third or fourth day a great improvement is visible; at the end of two or three weeks the vessels of the pannus become obliterated, the effusions are reabsorbed, the cornea regains its transparency, the palpebral mucous membrane becomes smoother and softer, and in consequence the sight improves. The so-called "fleshy pannus" (*pannus crassus*) will yield with great rapidity to applications of oil of vaseline containing 1¼ per cent. of iodine. Thus, in a case where two-thirds of both corneæ were covered by a pannus at least half a millimetre in thickness, after three weeks of treatment the left eye only presented a slight and altogether superficial opacity, whilst on the right eye there was simply a very thin pannus. In cases of recent trachoma, both of the granular and papillary form, the quantity of iodine should be increased to 3 and even 5 per cent. As oil of vaseline does not dissolve more than 1¼ per cent., a little sulphuric ether, or, better still, rectified petroleum, should be added in order to obtain a more concentrated solution of iodine. Painting the palpebral conjunctiva with these strong solutions generally causes a good deal of discomfort; the mucous membrane becomes red, the eyes water, and the patient suffers acute pain, which is, however, but of short duration. After four or five applications a catarrhal condition ensues, accompanied by

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copious secretion, congestion, and slight tumefaction of the mucous membrane. At this stage, in addition to the application of iodine twice or thrice daily, Dr. Neznamoff lightly cauterises the conjunctiva with a solution of nitrate of silver of the strength of 2 per cent., washing the eye immediately afterwards. In addition to this he lances the largest granulations and expresses their contents. In cases of recent trachoma with abundant secretion at the outset, before employing the strong solutions of iodine, it is advisable to apply glycerine mixed with ½ per cent. of iodine in order to arrest the secretion. The excellent results of Dr. Neznamoff's plan have been confirmed by Dr. L. L. Hirschmann, Professor of Ophthalmology in Kharkoff. He has found it useful in cases of granular ophthalmia and also in other ocular diseases. Thus cases of inveterate blepharitis of the ciliary canal will rapidly mend when liquid vaseline containing iodine in the proportion of ½ or 1 per cent. is applied to the edges of the eyelids. Instillations of several drops of this same solution are beneficial in cases of inflammation of the lacrymal sac. Finally, old infiltrations due to parenchymatous keratitis become reabsorbed on a solution of iodine in liquid vaseline of the strength of 2, 3, or 5 per cent. being applied to the palpebral conjunctiva. Solutions of iodine in oil of vaseline, obtained by the addition of sulphuric ether or by essence of petroleum, should be kept in the dark in well-sealed bottles. They remain clear for about a week, after which time they become thick and are no longer fit for therapeutic purposes.

LADIES' WORK AMONG THE POOR IN MANCHESTER.

IN presiding at the annual meeting of the Ladies' Health Society the other day in Manchester the Lady Mayoress of that town touched on one or two points going to the root of all efforts—if these efforts are to be successful—to help the poor to live happier and healthier lives. One was that "the work of the ladies was in the houses of the poor." It must be in the main a work of detail, house by house, family by family, for, so far as the dwellers therein are concerned, an insanitary district will only become cleaner and brighter by raising the individual standard. She spoke of the difficulties in the way of keeping the cottages of the very poor sweet and clean, and of maintaining the personal cleanliness of the women and children when all the cooking and washing have to be done, as in thousands of cases, in one small living-room, full of children, where it is almost impossible to get all the hot water required and where there is no privacy. She said—what has often been urged on the Baths Committee—that the costly baths of the Manchester Corporation did not supply the want. This society proposes to try the experiment in some of the districts of fitting up in a cottage one or two ordinary baths, which will be available every week day at hours convenient for the women and children, at a charge of a penny. Some such plan for poor, densely populated districts has often been urged, but the Manchester Corporation has thought it preferable to spend many thousands on costly buildings too grand for the very poor, than for a few hundreds to give simple facilities for cleanliness here and there in poor neighbourhoods. The former are, of course, useful, but not for the lowest stratum. Dr. D. J. Leech bore testimony to the value of the work as teaching the poor to help themselves. In seconding a resolution proposed by Dr. Leech, Mr. J. E. Phythian said he had heard a Member of Parliament remark, in reference to the work of the Sanitary Association, that "it was keeping children alive who had better not be kept alive," and that "the salvation of the working classes lay in the high death-rate." This no doubt was in accord with his idea of political economy, but Mr. Phythian thought it showed the necessity of carrying on the work of the society with redoubled vigour. One important extension of it should be mentioned. In addition to the sanitary teaching of the superintendents and health visitors, there are now three honorary lecturers, who have been occupied in going from one meeting to another and taking up various special health subjects, and the reports from the different districts give evidence that this teaching is appreciated.

THE RECENT EVENTS IN THE TRANSVAAL.

THE arrival of Mr. Cecil Rhodes in this country and the shortly expected arrival of Dr. Jameson have naturally aroused attention and awakened a fresh interest in the unfortunate events that have so recently occurred in the Transvaal. That those events call for, and will receive, a searching investigation is certain, for they gravely affect the honour of this country, and as the case stands at present some of them can only be regarded as quite indefensible. It is necessary to add, however, that we must suspend our judgment until we have heard what Mr. Rhodes and Dr. Jameson have to say. Dr. Jameson and others who acted with him are on their way to this country to stand their trial; but the indictment against them has not yet been framed, and the only proper and becoming attitude under these circumstances is to wait until we have heard their side of the story. The fact that Mr. Rhodes returned to this country from the Cape at the earliest possible opportunity shows that he fully realises the gravity of the situation. Matters involving most important questions of international law, the policy of the Government, and the honour and rectitude of the nation are not to be decided by the vague talk and beliefs of irresponsible people, by sentimental considerations or the verdict of music-halls, but by the decision of properly qualified and responsible officials after thorough and impartial investigation.

SMALL-POX AND VACCINATION AT GLOUCESTER.

ALTHOUGH the outbreak of small-pox in Gloucester has not as yet attained very great proportions it has already been responsible for some deaths amongst unvaccinated children. Thus one medical man (Dr. Bibby) reports from his own experience of five households as follows: (1) nine in family, the two eldest took small-pox, no marks of vaccination visible, one of them died; the rest, vaccinated and re-vaccinated, escaped the disease; (2) ten in family, the only two unvaccinated took small-pox and one died, there was no other case; all the others re-vaccinated; (3) four children, all unvaccinated, three had small-pox and one died; (4) six children, one unvaccinated had small-pox and died; the rest re-vaccinated, no other case; (5) adult, vaccinated in childhood, marks scarcely visible, had a very mild attack. All the deaths in hospital have been amongst the unvaccinated. In spite of such testimony as to what is going on in their midst, the opponents of vaccination, who as is well known regard Gloucester as one of their chief strongholds, have held a crowded meeting presided over by a local magistrate and addressed at great length by Mr. Hadwen, L.R.C.P., M.R.C.S., of Highbridge, Somersetshire. Mr. Hadwen's speech reproduced all the well-worn arguments of the anti-vaccination repertory and the extraordinary fallacy that defective sanitation alone is responsible for small-pox. This is somewhat unkind to Gloucester, which, like Leicester, prides itself upon its excellent sanitary state. One of the citizens has appealed to Professor Crookshank from the recent recommendation of the sanitary authority to resort to the protection afforded by vaccination, and has received a reply in which Professor Crookshank says that he has himself pointed out that there is evidence of a transient antagonism to small-pox, that the risk of transmission of syphilis by

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vaccination is eliminated by the use of calf lymph, and that "there is no ground for resisting voluntary vaccination in the face of an epidemic." He is urgent in recommending isolation as the only reliable method of stamping out small-pox. But in Gloucestershire, apparently, isolation is as much resented as vaccination, for the same journal (*Gloucestershire Chronicle*, Feb. 1st) records the destruction by fire of the Stroud Small-pox Hospital by a riotous mob. Only a few days previously a patient who was being taken there in an ambulance was prevented access to the building and driven back to his home by a similar mob. We believe that this visitation of small-pox will do more to enlighten the thoughtful members of the community as to the advantages of vaccination than any less forcible argument; but an admirable leaflet issued by Dr. F. T. Bond, medical officer of health for the Gloucestershire Combined Districts, will do much to strengthen conviction. It is entitled "Our Duty in Regard to Vaccination, or Fifteen Reasons why we should Believe in the Efficacy of Vaccination as a Preventive of Small-pox." It is temperate, logical, and lucid, and will, we trust, be widely circulated.

A SORRY JEST.

OUR contemporary, *Mr. Punch*, has passed his jubilee by some years, but still we think that he might have spared his readers (and he has many medical readers) the very ancient jest which occurs in his issue of Feb. 1st, entitled "On Safer Ground," and which runs as follows:—

1st Doctor: I ordered him an ice-cold bath every morning.
2nd Doctor: What, when he had influenza!
1st Doctor: Yes; it will give him pneumonia, and I made my whole reputation curing that!

This is more laboured than the original joke, which, if we remember rightly, was directed against unqualified practitioners. "Fever, ma'am, I know nothing about fevers; but you give him this powder, then he'll have fits, and I'm death on fits!" And the artist whose picture illustrates the ungenerous and undeserved jest at the expense of our profession is, if we are not much mistaken, a son of the late Mr. Richard Partridge, Professor of Anatomy at King's College and Surgeon to King's College Hospital, as well as Professor of Anatomy at the Royal Academy! *Mr. Punch* can do better than this, witness the picture of the man who wished he had bought a horse because his mare would always stop to look at herself in the puddles, Mr. Sambourne's drawing of Fidgety Wilhelm, and the review of the "Saveloy."

URETHRECTOMY AND URETHROPLASTY.

IT is now generally recognised that in cases of ruptured urethra the best results are to be obtained by immediate suture of the two divided ends, for if this be done there is but little likelihood of such a stricture forming as always follows if the wound be allowed to granulate. It needed but a slight extension of this principle for it to be applied to the treatment of intractable strictures; urethrectomy, as the operation has been called, consists of the excision of the strictured portion of the urethra and the approximation of the cut surfaces. This operation has now been performed in a large number of cases. Guyon quotes[1] forty-nine cases in which complete excision had been done and very good results had been obtained. But in some cases great difficulty is experienced in bringing together the two ends of the urethra after the extirpation of the stricture; in these cases attempts have been made to replace the portion of the urethra removed by transplantation of some other structure. A skin flap has been used, and in one case recorded by Keyes[2] of New York a piece of the inner layer of the prepuce was employed; the case did well, and a year later, though the points of junction could be felt by an instrument passed along the urethra, yet there was no real narrowing, as a nearly full-sized catheter could be passed with ease. In the present number of THE LANCET we print a case recorded by Mr. Clennell Fenwick of Christchurch, New Zealand, in which he replaced great loss of membranous urethra by transplantation of a portion of the urethra of a sheep. The wound healed well and the urine was passed naturally. We are, however, not informed of the length of urethra inserted, or how long an interval had elapsed since the operation when the account was written. The probability of success is great in this case, and it is unlikely that constriction of any moment will result. The after-history of the case is very important, and we hope that Mr. Fenwick will supply us with it when sufficient time has elapsed to enable the result to be judged.

[1] Gazette Hebdomadaire, 14 Mai, 1892.
[2] Journal of Cutaneous and Genito-Urinary Diseases, vol. ix., 1891, p. 401.

THE DANGERS OF STOVES.

A PECULIAR occurrence connected with the escape of fumes from a stove which might have resulted in a number of deaths is reported from Erlenbach in Germany. It appears that a school teacher had left his pupils, about eighty in number, for a short time in the schoolroom with the door locked. On his return he found them lying about the forms and on the floor in a comatose state owing apparently to the fumes from the stove escaping into the room instead of up the stove-pipe, a circumstance which is stated to have been due to the closing of the door and the consequent shutting off of a proper draught. The pupils quickly recovered on being led into the fresh air, and after the poisonous air in the room had been swept out by opening the windows they resumed their studies. The stove was probably of the closed type commonly used on the Continent, and under the conditions just narrated it is probable that the toxic effects were due to carbon monoxide and to the depletion of oxygen by the substitution of carbonic acid gas. It seems odd, however, that the pupils had not the intelligence to open the windows themselves as soon as the air was found to be objectionable. But the products of imperfect combustion are stealthy poisons.

MEDICAL MUNIFICENCE.

AMONG the benefactions to hospitals recorded in the end of 1895 there is one which seems to call for special comment, the central figure being a respected member of our profession and the circumstances being somewhat unusual. Oban is a picturesque little town on the Argyllshire coast, thronged with visitors in summer time and a favourite resort of yachtsmen. For some time past the necessity for an isolation hospital had been fully recognised by the local authority. Plans had been prepared and they had been approved by the Local Government Board for Scotland, but the inevitable question of cost arose. It was intended that the building should at first consist of a central or administrative block and one pavilion of two wards in which six beds could be accommodated, provision being at the same time made for the subsequent erection of another pavilion. Dr. R. B. McKelvie, the senior medical practitioner of the place and medical officer of health of the district not included in the burgh, realising the necessity for such a hospital in so popular a health resort, solved all the financial questions by generously presenting the burgh with £1000, the estimated cost of the hospital being about that sum. This liberal gift is unfettered by any conditions or stipulations except that during the donor's lifetime he shall receive 3 per cent. interest on the money, reserving to himself the right of spending this interest either upon the building or its extension or upon its improvement in any way that may seem to him best. Among well-considered schemes of hospital

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construction and maintenance this must surely take a high place, and we sincerely trust that Dr. McKelvie may be spared for many years to administer the annual fund which his enlightened liberality has secured to his townsmen.

CHARITABLE ANNUITIES.

A NOVEL scheme which is worthy of careful consideration has been devised for augmenting the funds of the National Hospital for the Paralysed and Epileptic. In a prospectus issued by the hospital it is proposed to return to donors unable to sacrifice their present income, but desirous of benefiting the charity, annuities calculated at from 4 to 5½ per cent. upon the amount of the gift, which may be any sum from £50 upwards. A gift of £1000 will provide for the endowment of a bed upon which the donor may bestow his own or any other name he may select. Absolute security is provided for the payment of the annuities, and they can be made payable to anyone the donors may nominate should they themselves desire not to receive them. An annuity may thus be purchased for any person for whom the donor wishes to make provision, and at the same time a deserving charity may be benefited.

SYMPHYSIOTOMY AT THE CLINIQUE BAUDELOCQUE IN 1895.

THE January number of the *Annales de Gynécologie* contains a paper by Professor Pinard recording the results of labour in cases of pelvic contraction at the Clinique Baudelocque during the year 1895. In the period in question there were 107 cases of contracted pelvis; 45 of the patients were primiparæ and 62 multiparæ. Among 107 cases there were 5 deaths of mothers. In 3 of the fatal cases delivery was effected by symphysiotomy, in 1 by basiotripsy, and in 1 by Porro's operation. In 77 of the 107 cases delivery occurred spontaneously. In the remaining 30 cases some artificial aid was employed. In 20 of the 30 cases delivery was effected by symphysiotomy. In the other 10 cases delivery was effected as follows: in 1 case by version, in 4 cases by basiotripsy, in 1 case by Porro's operation, in 3 cases by forceps, and there was 1 case in which abortion was induced. Among the 20 cases of symphysiotomy there were 3 deaths of mothers—i.e., a mortality of 15 per cent.—and in 3 of the cases the children died, so that the mortality of the children was also 15 per cent. In the paper referred to Professor Pinard gives also the numbers of his symphysiotomies prior to 1895. His total up to date is 69 operations, with 7 deaths of mothers and 8 deaths of children. The mortality has, therefore, been about 10 per cent. It is particularly interesting to observe that among his cases of contracted pelvis last year Professor Pinard had 5 patients on whom he had operated previously, in 4 by symphysiotomy and in 1 by ischio-pubiotomy. In 3 of these symphysiotomy was necessary a second time, but in 2 delivery occurred spontaneously; in one of them, however, labour came on naturally at seven months and a half. A formidable objection to symphysiotomy has been that it endangers the solidity of the pelvis. Sufficient time has now passed to enable Professor Pinard to speak definitely on this point, and he says positively that this solidity is not compromised in subsequent pregnancies, or by repeated symphysiotomies. As regards the best mode of extracting the child after symphysiotomy, when the head is high up he prefers version to delivery with the forceps. He protests against the statistics of symphysiotomy being compared, on the one hand, with those of Cæsarean section, and, on the other, with those of the induction of premature labour. For in cases of Cæsarean section he asserts operators too often choose their cases, and perform embryotomy on a living child if they suspect the patient has already been infected; and as regards the induction of labour, the comparison is not fair, because the operation is undertaken in healthy women who are carefully prepared, so that the risks of infection are reduced to the minimum. On the other hand, Professor Pinard performs symphysiotomy in all cases where the child is living—apart from any consideration of the state of the mother or of the surroundings from which she may have just come. He makes a telling criticism in favour of symphysiotomy as compared with the induction of labour in cases of slight pelvic contraction; in the former the operation is undertaken at term, and when the need for interference is imperative and incontrovertible; but what about women delivered spontaneously of healthy, full-term children, for whom, according to theory, induction of labour, with its high infantile mortality, immediate or remote, had been recommended? It is one of the benefits resulting from the introduction of symphysiotomy that the number of such unnecessary inductions of labour has been reduced.

THE NEW PHOTOGRAPHIC DISCOVERY.

THE developments during the week seem to have turned mainly on improving the source of the "x" rays. It is announced from Berlin that Dr. Neuhass has obtained these rays from an ordinary electric incandescent lamp by simply connecting one wire from the induction coil with the carbon filament so that it serves as the anode and the other wire with a metal plate outside the globe as cathode. If by this simple procedure the radiations are obtained sufficiently intense to permeate even the thickness of a hand the facilities of applying them to surgical use will be considerably augmented. We have ourselves tried this method and have succeeded in obtaining a beautiful bluish-grey light of tolerable brilliance by this means. But, unfortunately, as we found, the glass globe is almost immediately perforated by the discharge, so that air soon rushes in and fills the vacuum. It is worthy of note that the light thus obtained is of a bluish rather than a greenish tinge, the latter being the case with the vacuum tubes hitherto successfully employed in producing the photographs that have been already exhibited. The January number of the *Photographic Journal*, the official organ of the Royal Photographic Society, which is edited by Captain Abney, contains an admirable *résumé*, by Mr. J. W. Gifford, of the various papers which have been published relating to Professor Roentgen's discovery. The illustrations accompanying these are some of the best we have seen. The first is the shadow photograph of the living hand, and is a reproduction of the illustration which we published two weeks ago. The second one is a similar photograph, but practically without any detail of the fleshy parts. The rest of the plates are devoted to the photographs of various opaque substances, such as metal discs, &c., placed on the aluminium sheeting.

PAROXYSMAL PARALYSIS.

IN a recent number of the *Deutsche Zeitschrift für Nervenheilkunde* Dr. Goldflam published an interesting and important article which is abstracted in the *Neurologisches Centralblatt*. Five years ago he communicated some particulars of a family of eleven who suffered from occasional complete paralysis of all four extremities. He has since had the opportunity of carefully and continuously observing two of the members of the family. The condition affects the young people of the family, and shows itself in complete flaccid paralysis affecting the limbs and the trunk, and is characterised by loss or diminution of reflexes and of mechanical and electrical excitability of muscles. The muscles which are hypertrophied show but little strength, and the examination of freshly excised portions show that the fibres are unusually large, that the primitive bundles are wasted, and that there is vacuolation in them. In his first communication Dr. Goldflam hazarded the guess that

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the disease perhaps depended upon some toxic substance acting upon the muscles and their nerve endings so as to influence them and disturb them. This hypothesis receives a certain measure of support in the fact that a ptomaine-like substance is present in the urine of the patients and that a fairly constant condition of leucocytosis is also present. Possibly the poison exerts its influence on the muscles which have undergone some change in structure which renders them more susceptible to the influence of the substance. No doubt an analogy exists between such cases and cases of Thomsen's disease.

OBTURATOR HERNIA.

WE learn from the "clinical jottings" in the last number of the *St. Thomas's Hospital Gazette* of a case of obturator hernia which had been under treatment in St. Thomas's Hospital. An old woman aged seventy-one years had been admitted to hospital on Nov. 27th, 1895, for strangulated obturator hernia on the left side, for which operation through the pectinæus muscle was successfully performed. On Dec. 22nd a hernia appeared on the other side, but reduced itself in three hours' time. On the evening of Dec. 25th she again complained of pain on the right side and it was necessary to operate for the relief of strangulation. Mr. Anderson, who operated on both occasions, removed the sac, and recovery has been uninterrupted. The same surgeon has had another case of obturator hernia under his care, also in a woman, aged sixty-seven years. In this instance the symptoms were those of acute intestinal obstruction of seven days' duration, with a long history of preceding chronic obstruction, and the patient was too weak to bear the necessary operation. There was a definite sac on the other side in this case also. These cases are very rare and we hope to publish the notes in full.

AT the Clinical Society on Feb. 14th, at 8.30 P.M., Dr. Hale White will read a paper on Two Cases of Pneumothorax in the Course of Typhoid Fever; Mr. Pitts and Mr. Ballance will read a paper on Splenectomy for Rupture; and Mr. Golding Bird will read a paper on a Case of Lymph Scrotum and Lymphatic Varix. By an error in our last issue the meeting of the society was announced for to-day (Friday, 7th) instead of for a week hence. We trust that this corrected notice will reach the members of the society in time to annul our mistake.

AT a meeting of the medical practitioners of the town and county of Leicester held on Saturday, Feb. 1st, fifty being present, Mr. Bond in the chair, Mr. Victor Horsley opened a discussion on Medical Defence and the following resolution was carried unanimously: "That this meeting is of the opinion that the duties which are collectively known as those of medical defence should be undertaken by the British Medical Association, and that the memorandum of association should be altered to enable this to be carried into effect."

AT the discussion on the Parasite of Malaria, which, as we have already announced, will take place on Tuesday evening next at the meeting of the Royal Medical and Churigical Society, we understand that Dr. Curnow, Dr. John Anderson, Dr. Patrick Manson, and Dr. Galloway will speak. Microscopical preparations will be on view at 8 P.M., and during the meeting Dr. Pringle will show lantern slides made from the preparations.

ON Wednesday evening, Feb. 12th, at the Sanitary Institute, a discussion will be opened by Dr. S. Monckton Copeman on the Influence of Subsoil-water on Health. The chair will be taken at 8 P.M. by Dr. Farquharson, M.P.

PROFESSOR H. MARSHALL WARD, F.R.S., Professor of Botany in the University of Cambridge, will begin a course of three lectures on "Some Aspects of Modern Botany" at the Royal Institution on Thursday next, Feb. 13th.

THE name of the donor of the magnificent benefaction, amounting to about £20,000, to the Cumberland Infirmary at Carlisle has been made public. It is that of the late Mr. J. Addington Symonds.

DR. ROBERT BARNES has been elected *Président d'Honneur* of the Eleventh Session of the International Congress of Gynæcology and Obstetrics which is to take place in September at Geneva.

INFLUENZA is very prevalent at the present time in Madrid and other towns of Spain, and in several places in Upper India and the Punjab.

"THE LANCET" COMMISSION ON DANGEROUS PARAFFIN LAMPS.

MR. T. GRAHAM YOUNG writes that he cannot agree with certain of the conclusions contained in THE LANCET Commission on Dangerous Lamps and asks for some explanation of the apparent inconsistency that in 1862 THE LANCET Commission upheld 130° F. as the lowest point that should be taken as the flash-point of burning oils, whereas in the recent commission we ventured to express the opinion that there was no cause for raising the flash-point of oil above its present limit, 100° F. open test, which was the standard fixed by the Government in 1862. It should be observed that fifteen out of fifty-three samples examined by the 1862 Commission were below, and in some cases considerably below, the present limit. We expressed this opinion because the experience of a third of a century which has since elapsed has shown that explosions are the exception and not the rule. In other words, the great majority of accidents and disasters, if indeed, not all, have arisen from the lamps being upset. There is not the slightest doubt also that many of the cases reported as explosions were not so in point of fact. The sudden ignition of escaping oil, as with a tilted defective lamp, is certain to convey the impression of an explosion having taken place. This being the evidence of practical experience—and we refer Mr. Young to the official statistics—affords very little argument that the legalised flash-point is an unsafe limit, at any rate as regards explosions, especially bearing in mind the enormous number of lamps in use compared with the explosions of which we have had any evidence at all of ever having occurred. We have no experience of the same kind of oil of higher flash-point. We could quote more than one case, however, in which the employment of oils of a flash-point considerably above 100° led to loss of several lives by the overturning of the lamps and the ignition of escaping oil. Mr. Young expresses, further, the opinion that if oil of a sufficiently low flash-point to give off an inflammable vapour under ordinary conditions of use were safer than one with a high flash, then the necessity of a legal flash-point is questionable. We do not think so if we understand the phrase "ordinary condition of use" correctly. We should not like to pour benzene, for example, from one vessel to another in the neighbourhood of a flame, and the public should be protected from the same liabilities in the mere handling of inflammable oils. We very much doubt if the substitution of oil of higher flash-point and used in the same defective lamps as those experimented with would be less free from risk. Whatever may be conjectured, the fact remains that by far the majority of disasters are not due to explosions but to upsets, and the simple device of a wick-tube descending to within a quarter of an inch of the bottom of the reservoir would provide against the occurrence of either contingency. Hence we are brought to the conclusion that improvement in the design and structure of the lamp is now all that is wanted to minimise, if not to reduce altogether, the dangers of paraffin lamps. The handling of gunpowder is not entirely free from risk, but no one would think of firing it in a defective gun-barrel.

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THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER VI.

The Outrages in Argyll-street.—A Contemporary Account — The Effects of the Assault.—The Attitude of the Hope Fire Assurance Company.—Mr. Gardiner's Pamphlet.—Sworn Testimony of Eye-witnesses.

IT was necessary occasionally in the previous chapter to allude to occurrences which had not been described. Difficulties in the presentation of events will sometimes arise, and many of these are accentuated by the serial form of production. In a completed book the chances of perplexing the reader by the arrangement of material is very small—he can look forward or consult a complete index and all becomes clear; but in a serial publication he can do neither. The execution of the Cato-street conspirators preceded the assault on Wakley's person and property, but Wakley's public disclaimer, through the Sheriff of London, of the ridiculous charge made against him in connexion with the execution did not take place until after the assaults, the assaults having given publicity to the rumours. Let us now return to the night of the fire.

The following is an account of the events of that night which appeared in the *Morning Chronicle* of Monday, Aug. 28th, 1820. The information was obviously obtained in large part from Wakley himself and the inhabitants of No. 5, Argyll-street, showing that enterprising journalism is not quite the new gift from America that it is generally described to be and that interviewing has been known to the reporter for many decades; but the *Morning Chronicle* would seem to have taken considerable precaution to only publish what could be corroborated or else to have been under decidedly shrewd editorship, for the statements in the newspaper were subsequently borne out not only substantially but very exactly in a court of law.

ATROCIOUS ATTEMPT TO MURDER, SUPPOSED ROBBERY, AND SETTING A HOUSE ON FIRE.

Yesterday morning, about half-past one o'clock, a man called at the house of Mr. Wakley, surgeon, of No. 5, Argyll-street, Oxford-street, and knocked at the door. All the servants were in bed, and Mr. W., who was indisposed, was in his appartment putting some leeches to his temples. He placed a bandage round his head and proceeded to open the door, on doing which a man, who appeared to be flurried, said that he had come from Mr. Ibbetson, of the Bath Hotel, Basing-lane, an old patient of Mr. Wakley's, who was dangerously ill and required his immediate attendance. The fellow requesting a glass of cyder, as he said he was fatigued by a long journey, Mr. Wakley complied, and went downstairs to the cellar to procure him a glass. During the time it is supposed that the villain admitted some accomplices. On the Doctor's return to the passage he observed something rush towards him, and at the moment he received a tremendous blow on the head which knocked him down. It was with some instrument, and at the same time the destructive weapon of the assassin was aimed at his breast, on which he received a stab; he then thrust the instrument a second time, which passed through the collar of the Doctor's coat, waistcoat, and neckcloth, and penetrated the skin; he received other injuries, and while he lay in the passage he received violent blows and kicks from some person or persons; his abdomen was severely bruised. In this deplorable state he laid for three-quarters of an hour without the least assistance, when he was roused from his stupor by the flames in immense bodies rushing down the stairs and a dense smoke. He with difficulty arose and crawled out the back way and climbed through the skylight leading to the house of Mr. Thompson, next door, in whose parlour he was afterwards found weltering in his blood and apparently in a dying state. He was immediately carried to the house of Mr. Parker, of Argyle-street, where Drs. Luke and Cates attended and dressed his wounds. On Mr. Wakley being supported to the above house a daring villain unfeelingly snatched at his watch and got it from his fob. He had the presence of mind to seize the villain by the collar, the property was recovered, and he was taken in custody to the watch-house. Mr. W., after being dressed, was put to bed, and yesterday morning he bled himself, and fearful that his wife, to whom he was lately married, should be alarmed by the too speedy intelligence of the atrocious deed, although in so dreadful a condition, proceeded to his country residence yesterday morning. Three-quarters of an hour elapsed before the fire was discovered by Mr. W., who, as well as he was able, gave an alarm; the servants immediately arose and made their escape. A Lamplighter broke the windows of the parlour, on which the flames burst forth in a great body and the neighbourhood was in a moment illumined. The utmost confusion prevailed, and the inmates of the adjacent houses were seen, in almost a condition of nudity, taking refuge in other houses.

In a short time several engines arrived, and, having plenty of water, played with great activity on the element which seemed to threaten destruction to all around it, and persons employed in saving the furniture. In a few hours the house of Mr. Wakley was gutted, and what property there was in the house—if not stolen—was destroyed. Property consisting of guineas to an immense amount were in one of the upper apartments, and the firemen will be employed to search in order to ascertain if any robbery was committed, or if the above transaction proceeded from malice.

The mysterious affair has caused many suspicions. A short time ago Mr. Wakley received several threatening letters, signed "Jealousy is the cause, but it is from a friend." The man who called is unknown to Mr. Wakley, and the case is involved in great mystery. During the course of the day various persons of distinction about the neighbourhood made inquiry after the state of Mr. Wakley, and the answer was, "Although severely injured there are hopes of his recovery."

Fortunately the adjoining houses of Messrs. Thompson and Hodgson are not injured, save a slight scorching. So great an interest was excited by the quick circulation of the above horrid transaction that crowds of persons assembled, and Mr. Tarrant the magistrate in the course of the day attended by Mr. Dyer, and took the examination at the house of Mr. Parker of the servants belonging to Mr. W. and other persons, but he himself was in such a debilitated condition that he was unable to give his deposition.

The surgeons who examined the wounds on the body of Mr. Wakley did not think that they were of so serious a nature as to affect his life, the fortunate circumstance of his having put the bandage about his head prior to opening the door prevented the violent blow he received having a serious effect. The blow was given with some heavy instrument, and must have been given with deadly intention.

No clue whatever can be found as to the parties concerned in this atrocious affair. Information was speedily given at the police establishment, and likewise to the Secretary of State's office, for the purpose of causing bills to be circulated for the apprehension of the party.

Officers have received the necessary instrument, and we trust that in a short time the persons capable of such horrible transactions may be brought to justice. (*Morning Chronicle*, Aug. 28th, 1820.)

Wakley's bodily condition would seem to have been somewhat pessimistically described by the newspaper, as he was able on the morning following the injury to go to Kensington, where his wife was staying with certain members of her family. This he did that he should be the first person if possible to inform her that her husband, at any rate, was out of danger, while breaking to her the terrible news that their home was destroyed. His comparatively light escape was due to no want of will on the part of his assailant or assailants, but to the fortunate accident of his having placed a bandage round his head and receiving upon that protective material the blow

[1] Chapters I., II., III., IV., and V. were published in THE LANCET of Jan. 4th, 11th, 18th, and 25th, and Feb. 1st respectively.

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that was so deadly in intent. That he was stunned by the blow was also fortunate, as it prevented the further injuries to his person from being inflicted with the vigour that would have inspired them had they been dealt out to a struggling man capable of resistance and of calling for help. Then it would have been necessary for the assailants to silence him at all risks; but as he lay inanimate and to all appearance dead the stabs and kicks were not given with the whole-hearted fervour that would have inspired them had they been dealt out in self-defence. It requires more than ordinary callous determination to finish off an unresisting foe, and, perhaps against their wishes, the further attacks of the ruffians, after the first stunning blow, seem to have been perfunctory. But if his bodily ills were not as severe as first appeared, the shock that he had received mentally was unmistakable. Of nothing are we more assured concerning Wakley than that his personal courage was great. Strong, hardy, healthy, and athletic, he was by physique and temperament the very type of the man to whom nervous terror should never come. Yet it came now, and came in exacerbated form. He seems, indeed, to have been thrown off his balance by the horror of the attack, by the malignity that had dictated it, and the dread that his foes should even now not be satisfied with the ruin they had meted out to him, but be following him up with intent to carry out their extreme threats. His behaviour when beneath the hospitable roof of his opposite neighbour, Mr. Samuel Parker, whose account of the night's work has been preserved in the form of an affidavit, had every distinguishing mark of real and very present fear. He was wild, excited, and stupid by turns, and was not ready to shake off the effects of his terrible trials. Home gone, practice gone, and property gone, and all in a few brief moments; while he had still to dread for himself and, perhaps, for his young wife that the blind savagery that had instigated the attack on his life might repeat itself at any moment. He was for a short time at the very limits of his self-control, which is a more terrible plight for a strong, usually calm, and reticent man, than for more pliable and hysterical subjects. Undoubtedly at this period he wanted cool and keen-sighted friends badly, for without dispassionate advice his grief, anger, and fear might have prompted him to actions that later he would have regretted. Such friends he found in his solicitors, Messrs. Pownall and Fairthorne, and in Mr. Matthew Lofty, who was then assisting in the firm, and shortly afterwards became a partner. Seventy-five years ago Thomas Wakley applied to this firm for legal assistance, one of the then partners being his cousin. They advised him then, and their descendants continued to advise him, through a career in which lawyers' help was often necessary; and the same firm (now Messrs. Potter, Sandford, and Kilvington), to this day remain the legal advisers of THE LANCET.

The first step to be taken was clearly to give notice to the fire assurance company—the Hope—of the loss that had been sustained. The Hope Fire Assurance Company refused to pay, and intimated their intention of resisting the claim. Messrs. Pownall and Fairthorne at once took the matter up and advised Wakley to enforce the whole claim, and not to hear of compromise, for they saw that in such a course lay his only chance of public rehabilitation. Nothing definite was alleged against him, but the action of the assurance company could have but one interpretation: it was intended to intimate that he was responsible for his own misfortunes. So a writ was issued against the directors with a claim for the total amount insured. Unfortunately for the plaintiff their reluctance to pay leaked out. "Forthwith rumour stalked through the populous city 'in true Virgilian style,' and acquired strength in stalking, and, obstinately bent on iniquity, filled the people's ears with various stories." Some said that Wakley had burned down his own house. These ridiculed the idea that he was the victim of a plot on the part of the Thistlewood gang to assassinate him. Others spread the absurd story that he had been the masked man on the scaffold at the execution of Thistlewood and his co-conspirators, furnishing by their foolish imaginings a very excellent motive for the incendiary attack that other gossips found never to have taken place. Wakley's name was in all men's mouths associated with one lie or the other. Undoubtedly he had enemies, for the persistent manner in which he was maligned will allow of no other interpretation, but their motives and their persons remain equally unknown. At this juncture a certain Mr. William Gardiner came to his aid. Gardiner was a journalist, teacher of elocution, and, to boot, a queer enthusiast with a passion for justice and a sentimental desire to see it done quickly to all his fellow citizens. Hearing the rumours that were busy against Wakley, and concluding that they were wholly and cruelly untrue, he wrote to offer his assistance in the preparation for public circulation of a statement of all the events connected with the assaults and the fire. He had a relative in the publishing trade, which made it easier for him to ensure a prompt issue of such a work. The offer was gratefully accepted by Wakley, who saw in it a very fortunate supplementing of the legal proceedings that had been instituted. For although no unnecessary delay was to take place in the prosecution of the recalcitrant company, some lapse of time there was bound to be before a jury's verdict would silence his slanderers, and during that time the uncontradicted rumours grew daily in virulence and wildness. Gardiner was a prompt man. Immediately upon receiving Wakley's letter approving of the idea he set to work, and the result was the publication at the end of September, 1820, of a pamphlet entitled "Facts relative to the Late Fire and Attempt to Murder Mr. Wakley in Argyll-street, by William Gardiner, author of Wortley, A New System of Shorthand, Poems, &c., and Teacher of Elocution. London: T. Gardiner and Son, Princes-street, Cavendish-square; Sherwood, Neeley, and Jones, Paternoster-row; and sold by all other booksellers. 1820. Price 1s."[2] This pamphlet, which we regret sincerely to be unable to reproduce in full on account of its length, had an astonishing fore-word from the pen of Mr. William Gardiner, elocutionist, who moulded his style on that of the reforming divines.

"That unglutted fiend," he says in respect of scandal, "whose appetite unsatiated with the destruction of a man's property must riot on his peace, and rifle the flower reputation from his brow." And again: "The viper Slander, whose venomed shape is matured in human distress, has lifted her hideous head, and, flattered by the misery of its victim, charges him with being the incendiary in order to compleat the sacrifice of his ruin." He concludes as follows: "The author, who well knows the purity of the sufferer's heart, contrary to his own wishes, for he, proudly feeling the *mens conscia recti* like the eagle on the rock, smiles at the malice of the storm, has, with the consent of his other friends, collected all the known facts of this horrible but mysterious transaction. He has principally sought the testimony of gentlemen whose rank in life lifts them above the suspicion of partiality. The task is completed without exaggeration or extortion, it is delivered fairly as received, and the public have only to peruse the same to rectify the delusion caused by the rapid and foul propagation of slander."

Following upon his naïve but enthusiastic preface Mr. Gardiner prints sworn statements as to the events of the night from Wakley himself and from all the eye-witnesses whose evidence he could obtain. He received affidavits from Mr. George Thompson, the proprietor of Wakley's house, No. 5, Argyll-street, and occupier of No. 6, Argyll-street, which stood between Lord Aberdeen's house and Wakley's; from Mr. Samuel Parker and Mr. Robert Campbell, the occupants respectively of 35 and 36, Argyll-street,

[2] This pamphlet seems now to be quite rare. The Editors of THE LANCET will be much obliged if they can learn where a copy may be obtained.

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the houses directly opposite Wakley's; from Mr. Campbell's butler; from Wakley's own servants; from the servants at No. 9, Argyll-street; from the medical men who attended Wakley for his wounds; and from Mr. Fairthorne and Mr. Matthew Lofty, referred to above. Wakley's deposition is given below in full. It is a history of the night's occurrences written out by himself at the time. It was substantiated by numerous witnesses, many of whom contributed to Mr. Gardiner's pamphlet, and, later, being corroborated, secured for him as plaintiff the whole of his claim against the defendant Assurance Company.

Deposition of MR. WAKLEY *respecting the Murderous Attack made upon him on the night of the 26th of August last. Printed in Mr. Gardiner's pamphlet.*

Having applied two leeches to my temples in consequence of dimness of sight, and the leeches not readily taking, I was kept up till the late period of half-after 12 o'clock. About this time, when preparing for bed, I heard a knocking at the front door, upon which I lighted the candle in my bed candle-stick, placed it on the seat in the passage, and at the same time took out of it the key of the door, which I then unlocked and unbolted, demanding "Who is there?" A person answered, "I am come, sir, from Mr. Ivatts of Gerard's Hall, who is very ill, and wishes you to go immediately to see him." Having attended to Mr. Ivatts repeatedly for the last five[3] years I had no apprehension of danger, consequently took off the door-chain and let the man into the passage. I replied to him that "I was very sorry I could not go to see Mr. Ivatts then, being myself very unwell, but would endeavour to do so in the morning." Upon this the person said, "If your servants are not gone to bed, sir, I should be glad with a glass of something to drink, having walked very fast to your house." I told him "My servants are gone to bed, but I will get you something myself," asking him which he preferred, beer or cider? Choosing the latter, I took the candle from the seat in the passage (the place being sufficiently lighted for the man's accommodation by the candles in the parlour, as the door was open) and went into the dining-room to the cupboard for the key of the cider. I then went down to the kitchen to get a jug; but, not finding one, returned to the footman's pantry, where, having obtained it, I proceeded to the cellar in the back court or area and drew the cider. On my return into the passage, between the clock and the court door, and near to the foot of the stairs, I was knocked down by a blow from behind upon the upper part of the right side of my head. Whilst on the ground I received several kicks on different parts of my body, and believe that I heard voices near me, but to this I cannot swear, being at the time in such a stupefied state. When on the ground I also had inflicted on my chest two slight stabs. I cannot say how long I remained in a state of insensibility, but at length got sufficiently recovered to find that I was enveloped in flames and a suffocating smoke. I attempted to stand, but was prevented from weakness. I then crawled from the horrible danger that surrounded me into the back kitchen, where I again relapsed into a state of torpor, but presently awoke, and perceived with horror through the skylight flames issuing from all the back windows of the house. I advanced a few steps, but found in the back court a great quantity of burning pieces of wood, so by this way I had no hope of escape. The heat was intense and the smoke insufferable. My situation cannot be described; it was the very climax of horror. In my delirium I ran to the pump in order to prevent the lead which was above me from melting, as I feared it would do so, and fall in a fluid state upon my head; but finding myself nearly suffocated I miraculously hit upon the expedient of getting on a fire-screen, by which means I was enabled to get hold of a beam under the skylight. I then broke the glass and got through, passed over the leads and fence wall between Mr. Thompson's house and mine, and went from thence into Mr. T.'s residence. About five weeks subsequent to my marriage I received an anonymous letter stating that my house would be burnt within a month, and that jealousy was the cause. About three months after the first a second letter was conveyed to me. It said, "You are not yet forgotten; your house will yet be burnt and you assassinated." The person who called was a dark-complexioned man about 5 feet 8 inches in height, with black hair growing low upon his forehead, and habited in a black coat and waistcoat, with a coloured neck handkerchief tied high over his chin, as if he had a sore throat.

(Signed) THOMAS WAKLEY.

N.B.—From what has transpired since the fire I have every reason to suppose from the deposition of Mr. Green's servants that this attack was made on me by some abandoned wretches who imagined I had beheaded the traitors, and that the party had no connexion with the writer of the anonymous letters.

[3] This must be a misprint.

Of the remaining depositions save in two cases we can only give the gist, for the writers are a little voluminous, and the excellent Mr. Gardiner has evidently not exercised any supervision over them. The various persons deposed to what they thought important, and he has reproduced their statements exactly as they swore to them, which was by far the safest and most honest procedure. Mr. George Thompson, Wakley's neighbour and landlord, confirmed his statements in every detail where the facts had come under his observation and his account of the affair follows:—

Deposition of George Thompson, Esq., Freeholder and Proprietor of Mr. Wakley's House, No. 5, Argyll-street, and living at No. 6, same street. Printed in Mr. Gardiner's pamphlet.

I, George Thompson, being alarmed by the watchman's knocking at the door between one and two o'clock on Sunday morning, the 27th August last, drest myself with precipitation and ran into the street, when I perceived Mr. Wakley's house, the premises adjoining mine, to be on fire and the front door open. When I immediately returned to my own house to endeavour to preserve my property, and exclaimed to Mrs. Thompson, "I am afraid poor Mr. and Mrs. Wakley cannot escape." About three-quarters of an hour after this period I perceived Mr. Wakley at my parlour door in the passage in a state of exhaustion, covered with blood and dirt, whom I led into the room and gave some wine and water, which seemed a little to recover him, for he appeared as one lost in misery and distraction. Mr. Parker, of 35 in the same street, being with me to assist in the removal of my furniture, I exclaimed, "For God's sake, Mr. Parker, take care of Mr. Wakley and never mind my house." They both then got over to Mr. Parker's house, where Mr. Wakley was put to bed. The deponent then called on Dr. Luke, requesting him to go to Mr. Parker's house and see what assistance he could render Mr. Wakley. About four o'clock in the morning, when the roof of Mr. Wakley's house had fallen in and I was convinced my premises were safe, I went over to Mr. Parker's to inquire after Mr. Wakley, who then informed me that he had been knocked down at the bottom of his own kitchen-stairs by some person or persons unknown, and when recovered from the effects of the blow, and finding himself surrounded by flames, he crawled into the back kitchen and made his escape through the skylight to the yard, and climbed over the fence-wall that divided our premises and entered into my house about the time I found him. On my return from Mr. Parker's I examined the skylight on Mr. Wakley's premises and found it broken exactly as he had described it, and, further, the marks of his feet and knees were visible on the side of the fence-wall, where he had crawled down on my premises.

(Signed) GEORGE THOMPSON,
(Witness) MARY HART, No. 6, Argyll-street.
Sept. 23rd, 1820.

The deposition of Mr. Samuel Parker, his opposite neighbour, speaks to the pitiable plight in which Wakley appeared to be both mentally and physically when he was brought to No. 35, Argyll-street. He details the curious incident of the robbery from Wakley of his watch as he was being helped across the road, this being the occurrence to which Sheriff Parkins referred in his letter to Wakley concerning the Thistlewood executions.

Deposition of Samuel Parker, Esq., 35, Argyll-street. Printed in Mr. Gardiner's pamphlet.

About half-past one o'clock on the Sunday morning, the 27th August last, I was awakened by the springing of the watchman's rattle, a loud knocking at my door, and the cry of fire. On looking out of my window the chimnies of Mr. Wakley's house were smoking.

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Before I had dressed the flames gushed out of the two parlour windows, and shortly after at the street-door. I went immediately over to Mr. Thompson's, next door to Mr. Wakley's, to assist him in securing the valuable part of his property; when this was nearly effected I was informed that Mr. Wakley had not been seen, and had most probably perished. I accompanied Mr. Thompson, jun., to the top of his house. We called out there at all the windows and the upper back-leads in hopes of Mr. Wakley hearing us. When we descended I parted from Mr. Thompson, jun., in the back passage of his father's house, and I found Mr. Wakley, I believe, supported by Mr. Thompson, sen. Mr. T. requested me to take care of him and pay no further regard to his property. Mr. Wakley was in a most dreadful state; his senses were obviously deranged, and the horror and dread he exhibited, imagining all around him to be the murderers, were excessive. He had shiverings, or rather tremblings, apparently the effect of mental horror, as they were accompanied with gestures and clenching of his hands which caused me to hold him firmly, lest I should suffer violence; a profuse perspiration covered his face and he showed symptoms of great agony. His hands, face, shirt, and cravat were much covered with blood and dirt, and the blood gushed from his left ear and trickled down his neck. One of Mr. Thompson's servants brought some water which he drank greedily, and with great difficulty I restrained him from drinking of it too copiously. I then washed his face and hands, when he became more composed. On repeated questions as to the cause of his present state his only answer was, "It is murder, sir," and, in great horror and mental suffering, added, "I will tell you all soon." He continually asked, "Am I safe; where am I?" Mr. Wakley now became more calm, but being greatly annoyed by persons passing and repassing I determined to take him over to my house; after going down the street, just at my door we were surrounded by a gang of pickpockets, one of whom Mr. Wakley saw pull his watch from his pocket, who, enraged at this act of villainy, collared the thief, who offered no resistance, and the officers coming up they took him from his grasp. I did not believe Mr. Wakley had lost anything and supposed his expressions had proceeded from a return of his insanity; but upon my servant finding the watch upon the ground, which the thief had dropped, my fears were happily removed. This last effort quite overcame him, and he fell down exhausted on my hall seat; I gave him some more water and loosened his neckcloth, when a medical gentleman came to my relief and requested him to be put to bed; on the stairs he was seized with violent vomitings, and with great difficulty we got him to a chamber, where we put him to bed. Mr. Wakley's body was covered with numerous bruises or kicks, and I discovered two stabs, one on his chest and the other on his side; he recollected nothing of these, but expressed great horror at the remembrance of the kicks on his body and stomach. His sickness again returned, and was perhaps increased by the unfortunate circumstance of my servant, by mistake, having given him a cup of lamp oil instead of water, which Mr. Wakley drank off, and a little after complained the water was oily. Dr. Luke, who shortly after visited him, sent him a bottle of cider, which together with some medicine administered by Dr. Cates greatly relieved him. Both these gentlemen requested no person should be admited into his chamber; but Mr. W's. man-servant, who had heard his master was at Parker's, did go in, when his expressions of joy and gratitude for his master's safety were for some time too powerful for Mr. Wakley's feelings. It was about nine in the morning before Mr. W. seemed inclined to sleep, when I told him I should leave the room in hopes he could compose himself, but unknown to him I remained, judging it not right to leave him in such a state; he fell asleep, but it was agitated and broken, and he frequently exclaimed, in great agony of mind, "Save me from them, save me from them." Dr. Luke promised in the morning to take Mr. W., if he were able to go, in his carriage to Kensington, to Mrs. W., as Mr. Wakley was fearful what the consequences might be if she heard the dismal intelligence except from his own lips; myself and Dr. Luke accompanied him thither in the afternoon.

(Signed) SAMUEL PARKER.

(Witness) CHARLES PARKER.

Dated the 23rd September, 1820.

To the other depositions contained in Mr. Gardiner's amphlet only the briefest reference need be made. Mr. Wakley's servants deposed to the fact that they being awakened by the noise of the watchman giving the alarm called out to their master and obtained no response. The housekeeper said that she found the front door unfastened, bearing out Wakley's statement that he had unlocked and unbolted it to admit the unknown bearer of the lying message, for there was nothing whatever the matter with Mr. Ivatts of Gerard's Hall, who had sent no message to Wakley. Mr. Campbell, who lived opposite, and his butler, both of whom were aroused by the noise without, saw a man with a bundle under his arm run down the street into Argyll-place. The butler, who was earlier on the scene, was able to see that the man had emerged from No. 5, while he also noticed a hackney coach waiting in the street, the driver being apparently unperturbed at the conflagration which had well started. These depositions almost certainly establish the theory of a planned robbery. The servants at No. 9, Argyll-street, deposed to having heard from their area steps a group of three men, who were, like themselves, watching the fire, break out into frequent expletives signifying joy at the sight of the flames and hatred of Wakley. Their exact and ferocious expressions were deposed to on oath, and, if they did not proceed from the mouths of the guilty ruffians, still served to corroborate the undoubted fact that Wakley was a bitterly hated man by a certain set of unprincipled fellows. The medical evidence was also in direct support of Wakley's statement. Dr. Luke referred Mr. Gardiner to the account in the *Morning Chronicle* (which has been quoted above and which, with some trifling discrepancies, tallies entirely with Wakley's deposition) "for all facts that came to his knowledge." Mr. Cates testified to the violence of the assault that had been made. Mr. Fairthorne and Mr. Lofty deposed to the facts that Wakley had received anonymous letters threatening to burn down his house, and that they advised him to increase the insurance upon the premises and contents, which with reluctance he consented to do.

(To be continued.)

METROPOLITAN HOSPITAL SUNDAY FUND.

ON Thursday, Jan. 30th, a meeting of the Council of the Metropolitan Hospital Sunday Fund was held at the Mansion House. The Bishop of Stepney presided, and amongst those present were the Earl of Stamford, the Dean of St. Paul's, Sir Savile Crossley, Archdeacon Sinclair, Canon M'Cormick, the Rev. Canon Graham, the Rev. Prebendary Kitto, the Rev. Dr. Rigg, the Rev. Dr. Kennedy, Mr. Reginald Acland, Dr. Glover, Dr. Sedgwick Saunders, and Mr. Burdett.

Before proceeding to the business of the meeting the Council conveyed to the Queen and the Princess Beatrice an expression of earnest and respectful sympathy in the loss and bereavement they had sustained by the death of Prince Henry of Battenberg.

The committees, secretaries, and auditors having been reappointed for the ensuing year,

Dr. GLOVER moved: "That a committee be appointed to investigate and report upon the out-patient department of hospitals, and that it be empowered to spend a sum of money for statistical and accountant's work, and that the following gentlemen be appointed members of the committee." Such an inquiry had almost been promised to the Rev. Mr. King, vicar of St. Phillip's, Sydenham, at the last annual meeting of the Fund. Mr. King, in writing to Dr. Glover, said: "The various evils of the out-patient system were: promiscuous crowding and consequent danger of infection; misuse by the middle classes and servants in situations; overlapping and need of restrictions to avoid patients going the round of the hospitals; the short and useless diagnoses that medical officers are compelled to make; and the long hours that patients have to wait." The question was one that had received a great deal of attention by many important persons

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and bodies in London, but it had never been fully discussed in that Council. It was a subject constantly coming before the public and of great importance to the welfare and prosperity of hospitals. In entering into a discussion on the scale and cost of the out-patient department he was sure that they would approach the subject with the most friendly feelings for the hospital system in general and especially the voluntary system so characteristic of this country. From rough statistics which he had prepared the number of out-patients treated during the year at the London hospitals was 1,052,932 exclusive of the endowed hospitals of St. Thomas's and St. Bartholomew's. In the dispensaries 252,112 cases were treated, of which 2844 were midwifery cases. The total cost of treatment was nearly £100,000. The dispensaries spent on their cases £35,602, and the whole expenditure of the out-patient system in London reached a total of £134,690. Dispensary midwifery cases cost on an average 15*s*. 1*d*. and other cases 3*s*. 11½*d*. In addition to the ordinary out-patient system there was the growing evil of what was known as the casualty system—people dropping in without letters of recommendation, and the great majority of which were only seen once. It was the Council's duty to inquire into the out-patient system, which was not justified in all its details even by the medical men who administered it. A medical man at a recent public meeting had characterised the system as a farce, remarking that he had seen patients at the rate of one a minute. He (Dr. Glover) could not admit that such attendance was in any sense proper. It was not fair to the medical man and not fair to the poor, who, suffering from grave diseases, often attended at the hospital from four to eight hours. The great excuse made for the system was that, however bad it might be for the poor, it was good for medical education. This he denied. It was not the way to teach medical practice, and he could imagine nothing more injurious to the student. Besides, the wholesale competition of the hospitals had a very bad reflex effect upon the medical profession. It gave rise to low forms of practice. He pointed out that proper medical attendance was a personal matter, requiring knowledge of the person, and could not be given in the course of a minute.

The Rev. Prebendary KITTO did not agree with all that Dr. Glover had said, but he agreed that a case for inquiry had been made out.

The Rev. Canon GRAHAM thought that a subcommittee would be able to bring out no new facts.

The Rev. C. H. GRUNDY opposed the appointment of a subcommittee.

Mr. ALFRED COHEN supported the motion of Dr. Glover. He thought a great deal of good might come from such a committee if a representative of each hospital served on it. Such a committee would relieve the public mind and be a great help to the hospitals.

The Rev. Dr. KENNEDY doubted the right of the Council to interfere with the internal management of hospitals.

The Rev. Dr. RIGG did not see his way to oppose Dr. Glover's motion, but would suggest a modification of his proposal for his acceptance—viz.: "That it be an instruction to the distribution committee to more fully consider the subject of the hospitals' out-patient department, and that they have power to invite the coöperation of other members of the Council."

Mr. H. C. BURDETT said the managers of hospitals were anxious to reduce the number of out-patients, but they felt that the reduction rested rather with the medical men who gave their services free than with the lay management. He thought the Rev. Dr. Rigg's suggestion a wise one.

Dr. GLOVER, in briefly replying to the various objections to his motion, said he had no wish to close the out-patient department. He accepted the amendment, though not with entire personal concurrence. He was of opinion that the distribution committee should be reserved for the duties for which it was appointed.

Dr. RIGG'S motion was then agreed to.

Mr. ACLAND moved: "That a committee of six members of the Council be elected to consider and report whether grants can be made under the present system to Guy's and St. Thomas's Hospitals adequate to their needs, and if not whether any, and if so what, alteration should be made in the laws of constitution." He said Guy's Hospital was the second largest in London and St. Thomas's Hospital the third largest. Guy's Hospital received £889, and St. Thomas's Hospital did not appear on the list of awards at all. He thought that a fund which had collected some £60,000 from the charitable public for distribution amongst hospitals should be able to give some reason why the grant should be made in one case and not in the other. St. Thomas's and Guy's Hospitals practically served the whole of the sick poor on the south side of the Thames. Between them they contained 1193 beds. The collection in South London for the Hospital Sunday Fund amounted to £13,000, and dissatisfaction had been expressed by the clergy and inhabitants at the smallness of the grant received back by them.

Mr. F. H. NORMAN seconded the motion.

Dr. SEDGWICK SAUNDERS thought that the matter ought not to be considered as St. Thomas's Hospital had never asked for a grant. When Guy's Hospital asked to participate in the awards it was at once allowed to do so.

Mr. BURDETT and Mr. COHEN also took part in the discussion, and the matter being put to the vote the figures were as follows:—

For the motion	5
Against	3
Majority in favour of the motion ...	2

The meeting then terminated.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE ordinary meeting of the Comitia was held on Thursday, the 30th ult., Sir J. Russell Reynolds, Bart., President, being in the chair. At the commencement of the proceedings a vote of condolence was, on the motion of the President, conveyed to Her Majesty the Queen and Her Royal Highness Princess Beatrice with reference to the death of Prince Henry of Battenberg.

The President mentioned that that day was the eighty-first birthday of their former President, Sir William Jenner, and it was agreed that a message of congratulation should be sent to him. The President drew attention to the memorial-plate to Sir Henry Halford, which had been placed in the library in accordance with the resolution of the College passed forty-five years ago, and at his request the Registrar read the following inscription to the College:—

"In remembrance of Sir Henry Halford, Bart., G.C.H., M.D., F.R.S., for twenty-four years President of the Royal College of Physicians; to whom mainly is owing the removal of the College from the City to this site; to whose personal influence with King George IV. was due the grant from the Crown of the ground on which this edifice stands; and who, on June 25th, 1825, opened it with an elegant Latin oration, in presence of an audience the most distinguished that has ever assembled within the walls of the College. To perpetuate the memory of these services, and of Sir Henry Halford's untiring efforts to maintain the culture, character, and position of the English physician, and the welfare and dignity of this College, and to mark the admiration and gratitude with which he was regarded by his contemporaries, this tablet, by a vote of the College, has been here placed."

The President stated that he had nominated Dr. Gowers as the Bradshaw Lecturer for the present year.

The following gentlemen were admitted Members of the College: Bertram Louis Abrahams, M.B. Lond.; Cuthbert Chapman Gibbes, M.D. Aberd.; Albert Sidney Frankan Grünbaum, M.A., M.B. Camb.; John Douglas Stanley, M.D. Edin.; Seymour Graves Toller, M.D. Lond.

Licences were granted to 159 candidates who had passed the examinations. The diploma in public health was granted to ten candidates.

Communications were read from (1) Lieutenant-Colonel Arthur Bigge, conveying the thanks of the Queen to the College for a copy of Dr. Munk's "Life of Sir Henry Halford"; (2) Sir Francis Knollys, accepting copy of the same work on behalf of the Prince of Wales; (3) from the General Medical Council, thanking the College for the use of their library for the recent meetings; (4) the Sir Andrew Clark Memorial Committee, thanking the Fellows for the use of the College; (5) the secretary of the Royal College of Surgeons (two), reporting the proceedings of their Council on Dec. 12th, 1895, and on Jan. 9th, 1896; (6) the Russian Society for the Protection of Public Health, proposing to commemorate at St. Petersburg in May next the 100th anniversary of the introduction of vaccination by Edward Jenner and asking the coöperation of the College; and (7) Dr. Robert Lee, offering a letter by Sir Henry Halford for the acceptance of the College. In connexion with the

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last-named the Registrar undertook to provide a book for autographs as suggested by Dr. Ogle.

A communication was read from members of the medical profession in Mauritius asking the College to support their memorial to the Colonial Secretary, praying that appointments in a British colony should be restricted to holders of British diplomas. On the motion of Dr. Norman Moore, seconded by Dr. Allchin, the matter was referred to the Council. Vacancies on the Council were filled by the election of Dr. Payne, Dr. Eustace Smith, Dr. Poore, and Dr. Ferrier. Mr. Thomas Townsend Bucknill, Q.C., M.P., was elected standing counsel of the College, in place of Sir Arthur T. Watson, Bart., resigned. On the motion of Sir R. Quain the thanks of the College were voted to Sir Arthur Watson, Bart.

The President offered for the acceptance of the College on behalf of Miss Clendinning a portrait of her brother, Dr. John Clendinning, F.R.S., a former Fellow and Senior Censor of the College. On the motion of Dr. Quain a vote of thanks was passed to Miss Clendinning.

A report was received from Dr. Payne, secretary of the Nomenclature Committee, on the completion of the new edition of "Nomenclature of Diseases," copies of which were laid on the table.

Dr. Pye-Smith, Second Censor, moved a vote of thanks to Dr. Payne and that he should receive an honorarium of 200 guineas for his labour. The thanks of the College, he said, were also due to Dr. Perry for assistance in the Latin nomenclature, to Dr. Weber for the German part, to Dr. Keser for the French, and to other gentlemen not belonging to the College, among whom he instanced the late Mr. Hulke. Sir Dyce Duckworth seconded the motion, remarking that the previous committee had been presided over by Dr. Sibson and Dr. Ord respectively, the expense of the publication being borne by Her Majesty's Stationery Office.

The representative of the College on the General Medical Council (Sir Dyce Duckworth) reported the recent proceedings of that body.

The Registrar drew attention to the regulations relating to the five years' course of study and examinations for the conjoint diplomas as revised in accordance with the resolutions of the College of Nov. 22nd last.—Dr. J. K. Fowler pointed out that the subject of pharmacology, although placed under the heading of medicine, still retained an independent position in the examinations, for it could be taken alone in the fourth year. This was not what the College intended by its vote, for there was retained the multiplicity of subjects in which a candidate could be rejected.—Dr. S. West said that practically no change had been made; the subject of pharmacology of which a long schedule was printed would be a great addition to the work of the student.—The Registrar said that any change in the regulations at the present time would be most inconvenient. He did not admit that a new subject had been added, it was simply the transference of part of the old materia medica examination to a later period.—Dr. Thorne Thorne protested against the introduction of a new examination.—Dr. Norman Moore was strongly opposed to the schedule in pharmacology which had been drawn up after consultation with teachers, but it was not possible to erase this without proper notice.—It was then moved by Dr. Thorne Thorne, seconded by Dr. S. West, and carried *nem. con.*, "That a special meeting of the College be called at the earliest possible date to reconsider the subject."

Reports were received from the finance committee, the committee of management, the laboratories committee, and the examiners for the licence.

Dr. G. Sims Woodhead was re-elected director of the laboratories, and the recommendation of the management committee was accepted that the Examination Hall should be granted for the meetings of the International Dermatological Congress and of the British Dental Association, with the proviso (adopted on the motion of Sir R. Quain, seconded by Dr. Allchin) that the rooms should be wholly used for scientific purposes.

THE ASHANTI EXPEDITION.

WITH the return of the British troops to the coast the expedition to Ashanti may be regarded as over. Up to the present time things remain quiet at Kumasi, and the situation may consequently be regarded as so far quite satisfactory. Whether this is to be the permanent state of affairs time can only determine, but there is every reason to hope and believe that a great change for the better has taken place in Ashanti and in our relations with that warlike and troublesome country. The total number of sick in the expeditionary force, according to the latest intelligence from Cape Coast Castle, is 120, including eighteen officers. The expedition has been carried out with, what may be termed, scientific precision, and it forms a kind of object lesson in showing what can be accomplished in climates so inimical to health as the West Coast of Africa by the exercise of forethought and timely provision. The arrangements reflect great credit on all concerned, and not the least so on the medical department. If we were disposed to take any exception to them it would be to the selection of a battalion that had only just fulfilled a tour of Indian service; but nothing succeeds like success, and in this respect the employment of the West Yorkshire Regiment on the African expedition has justified itself. The hospitals and hospital arrangements at the base and *en route* on the line of march were excellent. The site of the hospital at Prahsu was well selected. The river at this station is of considerable width, and it was well and safely bridged (as is shown in the picture sent by our Special War Correspondent), and a good and wholesome source of water-supply for the troops and hospital was found available. As we have said already, it would be too much to expect that the relatively small number of sick at the present time will be the limit and measure of inefficiency that may hereafter arise among the troops from their service in this climate. We may fairly expect that there will be some fresh manifestations of malarial disease later, and that those who have already suffered will have some recurrences of fever attacks; but the experience of this and of the expedition of 1873–74 shows that the risks to health of field service in this climate have been somewhat exaggerated if care be taken to select the right time and to strictly limit the operations to the dry and healthy season. Although there was no fighting it was always felt that the risk to life and health would not arise from that cause, but that the real enemy to be overcome was the climate, and this has been accomplished, as far as it was practicable, by good arrangements. We hope that the hard and excellent work which has been done by the troops and by the medical and transport departments will not be overlooked but adequately rewarded.

(FROM OUR SPECIAL WAR CORRESPONDENT.)

OUR first day's march from Cape Coast Castle, although one of scarcely seven miles, proved a hot as well as a very trying one, and we were glad enough to reach the native village of Yacumba, at the northern end of which an extensive piece of ground had been cleared and on the space a rest camp laid out. The erections consisted of a number of huts varying in length from 70 ft. to 40 ft. and in breadth about 30 ft. The uprights are saplings and bamboos, the rafters being made of split bamboos, while the side, ends, and roofs are composed of leaves from the same very useful plant. These temporary houses are placed in rows, a roadway some 20 ft. wide being preserved between each line of erections. Native latrines (centres of pestilential abomination) having been wisely done away with, new ones, with suitably dug pits, and further removed from the resting huts, have been erected in their stead. We found Major Sinclair, R.E., with his subaltern, Lieutenant Pritchard, in occupation of one of the dwellings on arrival, and, water being a primary consideration, we proceeded at once to view the source of its supply as well as to subject it to a qualitative examination as far as the chemical reagents at our disposal would admit of.

First of all we ascertained that a distance of nearly two miles had to be covered before the source was reached, and when a portion of it was taken from a sluggish, dirty stream, into which, by several tortuous, narrow surface rivulets, the native village evidently drained, the water was found to be of a dark-brown colour, with a decidedly leafy, ill-smelling odour and devoid of transparency. The litmus paper, on introduction by means of a test-tube, immediately turned red, whilst the colour produced by a few drops of permanganate of potash speedily disappeared. Solution of nitrate of silver produced a distinct brownish deposit, acetate of lead also a deposit, and Nessler's solution an equally unsatisfactory result. There was, of course, no alternative left but to condemn the fluid as totally unfit for use; but it was decided to boil some and again submit a portion of it to analysis, which, to our surprise,

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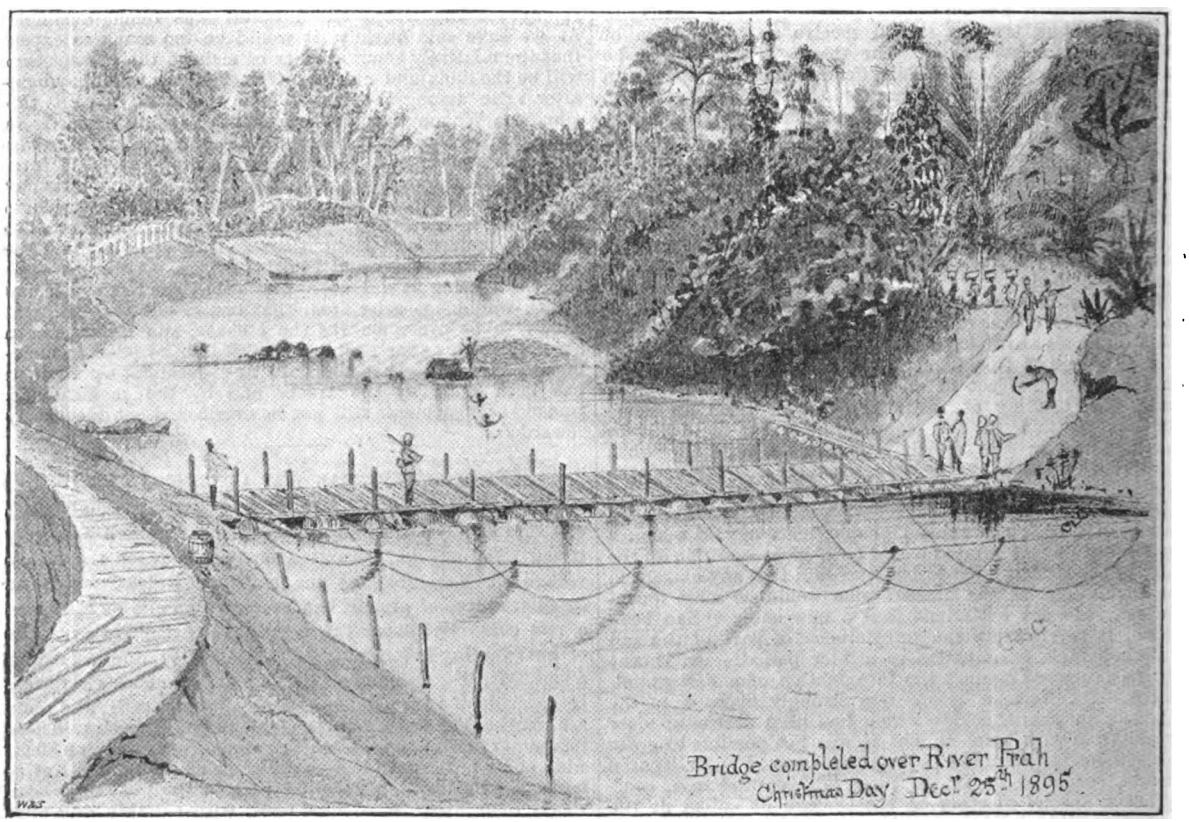
resulted in more distinctly pronounced unsatisfactory results. Why should this be? was now a question to be ascertained. Nor were we long kept in suspense as to the cause, for on inquiry it appears that the receptacle in which the water had been carried from the source to the fire to be boiled was found to be an old native earthen pot, which could not have been previously cleansed before our using it, and as these receptacles are used by the natives at times for very questionable purposes to save themselves trouble one can readily understand how easily the results as noticed by us have been produced. Experience has yet taught us another valuable lesson: never to use the native chop "ghwansan" jars again.

The embers of a wooden fire, probably left by the camp erectors, enabled us to speedily rekindle one, by means of which some good coast water brought up by the carriers was boiled and tea made and served out, which refreshed us immensely. Scarcely had night closed in before the majority had turned in and were enjoying a well-earned sleep, to be broken, however, at intervals by the croaking African sloth, which makes night hideous by its oft-repeated noises. Daylight found all astir, and after a light warm breakfast most of us had left Yacumba behind and were some miles away on the march before the sun had risen from his couch.

On this second day's early march we passed beneath the shade of some mighty bamboo clumps, and crossed over several running streams in which natives were noticed washing themselves and dirty clothes. More (children for the most part) were seen micturating, and not a few defecating within a few yards of their coloured relatives securing water for their daily meals. Under such primitive conditions of existence is it to be wondered at that a low form of fever exists, or that yellow fever or blackwater fever occasionally makes its presence felt in their midst? Whenever a native has occasion to relieve himself per rectum his usual habit is to squat down by the side of the road, or at the best to retire for decency sake to a spot situate possibly, say, two or three yards from the road in the bush and there perform the necessary diurnal operation; and as these excretive mounds are replete at times with long round worms in successive stages of putrefaction the results may be easier imagined than described, when from 8000 to 10,000 of these native carriers are employed in going to and returning from the front over a distance of nearly 400 miles.

The formation around Yacumba is gneiss, with granitic outcrops. Hence the water shows the usual deposit on being treated with solution of nitrate of silver. I mention this *en passant*, as no lime has been found in the fluid since leaving that district—I mean in any appreciable quantity—so that a phosphate of lime plan of treatment might be advantageous should men at any time suffer from phlegmons during the present campaign. On board vessels exclusively using distilled water emigrants and others are often subject to phlegmons, and recover therefrom quickly enough if given phosphate of lime with a small daily amount of port wine added to their usual rations.

After a brisk morning's march of three hours we reached Akrofal about 8 A.M. The morning was cool and very pleasant for travelling. More swamps beneath the shade of clusters of gigantic bamboos were passed through and more streams were seen in which the natives were cleansing themselves. This second of the rest stations has been well chosen, situated as it is on a sort of table land, and is freer than the last from objectionable surroundings. The huts are better and more solidly built than those at Yacumba, the sides and ends of the dwellings being formed of split bamboos instead of leaves, whilst the roofing of them is closer and better arranged. No hospital had as yet been built, but Major Sinclair fixed on a suitable site for one, and its erection was to be immediately proceeded with.



As soon as I arrived I proceeded to visit the source of water-supply, and found it to be a somewhat sluggish stream, distant some 300 or 400 yards from the camp, and approached by a roadway of loose shining sand, with gneiss everywhere in evidence. The water was of a light brown colour, with a somewhat leafy taste and slight vegetable odour. It was fairly clear throughout if collected from a spot where the mud had not been stirred up by the bathing negroes, who were, as usual, disporting themselves therein. Litmus and turmeric papers gave a negative reaction. Permanganate of potash solution gave fairly good results. Nitrate of silver gave a trace of discolouration after standing some time. Acetate of lead, *nil*; and Nessler's solution gave such results as to enable us to class

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this water as fairly good for use, after its boiling had been effected in such good, clean vessels as could be secured for the purpose. The stream ran through a sort of shallow water hole beneath the shade of lofty bamboos and mimosa trees, and its surface was securely covered up and protected from the hot rays of a tropical sun by closely grown lumps of the bright-green ententoa plant. After refreshing ourselves with hot tea and hard biscuit, and resting till 2 P.M., we pushed on to Dunkwa and reached our third halting station before 5 P.M. the same day. At this native village the camp erectors, whoever they are, have done right good work. Improvement with them in every respect has been progressive as far as site for and plan of camp erection is concerned. There has been more extensive clearing of bush around, and the arrangements for the housing of troops and men are decidedly more definite in plan as well as in detail than at other stations seen by me on the road up to the front. The newly erected latrines are models of what they should be, and reflect no small credit on those who have had the responsibility of their erection in hand.

Dunkwa, Jan. 7th.

THE BATTLE OF THE CLUBS.—XX.[1]

(*Continued from p. 337.*)

The Manchester Medical Guild and Medical Aid Associations.

THE Council of the Manchester Medical Guild has published a lengthy report on provident medical aid. This report deals first with friendly societies, and its recommendations may be summed up as follows: that the rate of payment should never be less than 4*s.* per member per annum; that the duties of medical officers should be clearly defined and uniform; that a rate of 2*s.* 6*d.* should be charged for the medical examination of each candidate; that a club medical officer should not be debarred from obtaining the usual fees under the Employers' Liability and Lunacy Acts; and that women should pay 6*s.* a year.

The report then proceeds to criticise the Provident Dispensaries' Association of Manchester and Salford, which has some 26,000 members. It complains that this dispensary has not, as promised, reduced the number of patients at the hospitals, that its medical officers only receive on an average 2*s.* per annum per member, and that there is a non-medical control and no wage limit. The management is very expensive and a reserve fund has been created out of the labour of medical men. The report also deals with medical aid associations, and quotes the recommendations made by Dr. Leslie Phillips to the General Medical Council. In its conclusions the Council of the Manchester Medical Guild urges that it is not necessary or desirable in the true interests of the public for medical men to "become the paid servants of a lay committee engaged in carrying on a medical practice, or that they should be used as a source of profit by lay speculators in medical attendance, or that they should be employed by insurance companies as a means of bolstering up their business; and that the recognition by the profession of practitioners assisting in these proceedings is to be condemned.

The Council is also of opinion—"1st, that the Medical Acts under which the General Medical Council hold their disciplinary powers are capable of a very different interpretation from that officially given as a reason for inaction; and, 2nd, that the conversion of the ethical law, which prohibits medical practitioners from canvassing or advertising, directly or indirectly, personally or by an agent, into a penal enactment would be welcomed by the profession at large, and would in no way interfere either with the right of combination possessed by the public or with the legitimate work of the friendly societies."

The report maintains that the profession should only recognise those provident associations which enforce a wage limit, which allow no layman to make profits or accumulate reserve funds out of medical work, or medical men to be controlled by other than medical committees. The report suggests that no medical officer should undertake to attend and dispense medicine for more than 1500 members living within a radius of two miles. Provident dispensaries should be open to all practitioners residing in the district, but no medical officer should be permitted to permanently employ an assistant while undertaking such work. The report, after denouncing the "sixpenny doctor" and the "private club or dispensary," endorses the resolutions passed in the Ethical Section of the British Medical Association meeting of 1895, and also Rule 13 of the Devon and Cornwall Branch of the Incorporated Medical Practitioners' Association, namely: "That every member of the branch shall give a personal pledge not to oppose any other member in any course of action he may take in connexion with any public appointment he may hold, so long as such course of action is sanctioned by, or arises out of, advice given by the Council."

The report, of which the above is but a brief summary, was adopted at the second annual and general meeting of the Medical Guild, held at the Victoria Hotel, Manchester, on Jan. 30th this year. Dr. Henry Simpson, who was in the chair, announced that sixty-two new members had joined during the second year, bringing the total membership up to 113.

According to the official statement, the objects of the Guild are to aim at the organisation of the profession in order to secure united action and the coöperation of all for the common good; to gather up and guide medical opinion in all matters affecting the profession and give public or private expression thereto when deemed advisable; and to foster *esprit de corps*.

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham; (18) Jan. 25th, 1896, Club Practices in Rural and Mining Districts; (19) Feb. 1st, 1896, The Formation of a Provident Medical Association at Folkestone.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6139 births and 3837 deaths were registered during the week ending Feb. 1st. The annual rate of mortality in these towns, which had been 19·7 and 18·8 per 1000 in the two preceding weeks, further declined last week to 18·4. In London the rate was 17·8 per 1000, while it averaged 18·8 in the thirty-two provincial towns. The lowest rates in these towns were 14·1 in Croydon, 14·6 in Bradford, 14·9 in Derby, and 15·1 in Bristol and Huddersfield; the highest rates were 21·0 in Sheffield, 21·5 in Leicester and in Manchester, 22·1 in Bolton, 22·2 in Oldham, and 22·7 in Birmingham. The 3837 deaths included 457 which were referred to the principal zymotic diseases, against 563 and 492 in the two preceding weeks; of these, 148 resulted from whooping-cough, 101 from measles, 93 from diphtheria, 45 from scarlet fever, 35 from "fever" (principally enteric), 33 from diarrhœa, and 2 from small-pox. The lowest death-rates from these diseases were recorded in Croydon, Swansea, Hull, and Gateshead, and the highest rates in Salford, Huddersfield, Birmingham, and Bolton. The greatest mortality from measles occurred in Norwich, Leicester, Huddersfield, Salford, Birmingham, and Burnley; and from whooping-cough in Sheffield, Leeds, Portsmouth, Derby, Sunderland, and Bolton. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 93 deaths from diphtheria included 61 in London, 6 in Birmingham, 4 in Liverpool, and 3 each in West Ham, Portsmouth, and Newcastle-upon-Tyne. Two fatal cases of small-pox were registered in Cardiff, but not one in any other of the thirty-three large towns. There were 74 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 1st inst., against 66, 73, and 70 at the end of the three preceding weeks; 12 new cases were admitted during the week, against 20, 17, and 14 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2879, against 2839, 2883, and 2916 on the three preceding Saturdays; 273 new cases were admitted during the week, against 290, 280, and 290 in the three preceding weeks. The deaths referred to diseases of

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the respiratory organs in London, which had increased from 314 to 356 in the four preceding weeks, further rose to 366 last week, but were 132 below the corrected average. The causes of 64, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Oldham, Leeds, Hull, and in ten other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Burnley, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·5 and 21·0 per 1000 in the two preceding weeks, declined again to 19·5 during the week ending Feb. 1st, but was 1·1 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 11·2 in Leith and 15·2 in Greenock to 25·2 in Aberdeen and 25·6 in Perth. The 570 deaths in these towns included 37 which were referred to whooping-cough, 17 to diarrhœa, 10 to scarlet fever, 7 to "fever," 6 to diphtheria, 2 to measles, and not one to small-pox. In all, 79 deaths resulted from these principal zymotic diseases, against 73 and 59 in the two preceding weeks. These 79 deaths were equal to an annual rate of 2·7 per 1000, which was 0·5 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 38 and 29 in the two preceding weeks, rose again to 37 last week, of which 23 occurred in Glasgow, 5 in Dundee, and 5 in Aberdeen. The deaths from scarlet fever, which had been 6 and 3 in the two preceding weeks, rose to 10 last week, and included 7 in Glasgow. The deaths referred to different forms of "fever," which had been 3, 5, and 3 in the three preceding weeks, rose again to 7 last week, of which 4 occurred in Glasgow. The 6 fatal cases of diphtheria showed a further increase upon the numbers recorded in recent weeks, and included 3 in Glasgow and 2 in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 136 and 142 in the two preceding weeks, declined to 116 last week, and were 52 below the number in the corresponding period of last year. The causes of 32, or nearly 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22·5 and 27·4 per 1000 in the two preceding weeks, declined to 26·5 during the week ending Feb. 1st. During the past five weeks of the current quarter the death-rate in the city has averaged 26·7 per 1000, the rate during the same period being 18·7 in London and 16·2 in Edinburgh. The 178 deaths registered in Dublin during the week under notice showed a decline of 6 from the number in the preceding week, and included 7 which were referred to the principal zymotic diseases, against 4 and 11 in the two preceding weeks; of these, 3 resulted from "fever," 2 from whooping-cough, 1 from scarlet fever, and 1 from diarrhœa, but not one either from small-pox, measles, or diphtheria. These 7 deaths were equal to an annual rate of 1·0 per 1000, the zymotic death-rate during the same period being 2·6 in London and 1·3 in Edinburgh. The deaths referred to different forms of "fever," which had been 2 and 6 in the two preceding weeks, declined again to 3 last week. The 2 fatal cases of whooping-cough exceeded the number in any recent week, while the mortality from scarlet fever corresponded with that recorded in each of the two preceding weeks. The 178 deaths in Dublin last week included 28 of infants under one year of age, and 54 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the numbers recorded in the preceding week. Seven inquest cases and 8 deaths from violence were registered; and 71, or more than a third, of the deaths occurred in public institutions. The causes of 19, or nearly 11 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING 1895.

Complete statistics relating to sickness and mortality during the year 1895 in each of the forty-three sanitary districts of London are summarised in the accompanying table. The mortality statistics relate to the deaths of persons actually belonging to the various sanitary districts, and are the result of a complete system of distribution of deaths occurring in the institutions of London among the various sanitary districts in which the patients had previously resided. With regard to the notified cases of infectious diseases in London during 1895, it appears that the number of persons reported to be suffering from one or other of the nine diseases in the accompanying table was equal to 9·5 per 1000 of the population, estimated at 4,392,346 persons in the middle of the year. In the preceding three years the rates were 10·8, 15·7, and 9·4 per 1000 respectively. Among the various sanitary districts the lowest rates were 4·9 in St. Olave Southwark, 6·1 in St. Martin-in-the-Fields, 6·5 in Lewisham and in Westminster, 6·7 in St. James Westminster, and 6·9 in Paddington and in Hammersmith; the highest rates were 12·5 in Plumstead, 13·1 in Limehouse, 13·3 in Poplar, 13·6 in Bethnal Green, 13·8 in Whitechapel, Mile End Old Town, and Rotherhithe, and 14·4 in St. George-in-the-East. The prevalence of small-pox in London showed a further decline during 1895, the cases notified being 979, against 2813 and 1192 in the two preceding years; of these, 106 belonged to Marylebone, 102 to Whitechapel, 94 to Bethnal Green, 86 to Camberwell, 54 to Mile End Old Town, 54 to Lambeth, 48 to St. George Southwark, 42 to Greenwich, and 38 to Rotherhithe sanitary areas. The number of small-pox patients admitted into the Metropolitan Asylum Hospitals during 1895 was 1018, and 75 cases remained under treatment at the end of the year. The prevalence of scarlet fever in London during 1895 showed a slight increase upon that recorded in 1894, 19.757 cases being notified, against 36,901 and 18,446 in the two preceding years; this disease was proportionally most prevalent in Chelsea, Bethnal Green, Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, and Rotherhithe sanitary areas. During the year under notice 11,411 scarlet fever patients were admitted into the Metropolitan Asylum Hospitals; the number under treatment, which had been 1865 at the beginning of the year, was 2708 at the end of December last. Diphtheria showed slightly increased prevalence during 1895, the cases notified being 11,223, against 8349, 13,694, and 11,186 in the three preceding years; this disease showed the highest proportional prevalence in Bethnal Green, Whitechapel, St. George-in-the-East, Mile End Old Town, Poplar, Rotherhithe, Camberwell, and Greenwich sanitary areas. The Metropolitan Asylum Hospitals contained 521 diphtheria patients at the beginning of 1895; 4459 cases were admitted during the year, and 687 remained under treatment at the end of December last. Enteric fever also showed increased prevalence during the year under notice; this disease was proportionally most prevalent in Hackney, St. Martin-in-the-Fields, Strand, Poplar, Woolwich, and Plumstead sanitary areas. The number of enteric fever patients in the Metropolitan Asylum Hospitals, which had been 104 at the beginning of 1895, was 117 at the end of December last; 844 patients were admitted during the year, against 734 and 675 in the two preceding years. Erysipelas showed the highest proportional prevalence in Holborn, St. Luke, Bethnal Green, Mile End Old Town, and Rotherhithe sanitary areas. The 236 notified cases of puerperal fever were within 17 of the number in the preceding year; 22 belonged to Islington, 18 to St. Pancras, 17 to Greenwich, 16 to Lambeth, 16 to Camberwell, and 13 to Hackney sanitary areas.

During the year under notice the deaths of 85,138 persons belonging to London were registered, equal to an annual rate of 19·4 per 1000, against 20·3, 20·9, and 17·4 in the three preceding years 1892–3–4. This rate, although it exceeded by 2·0 per 1000 the exceptionally low rate recorded in 1894, was 0·4 per 1000 below the average rate in the ten preceding years. In the various sanitary areas the lowest death-rates were 12·0 in Hampstead, 13·4 in Stoke Newington, 14·4 in Lewisham (excluding Penge), 14·5 in Lee, 14·8 in Wandsworth, 15·2 in Plumstead, and 15·9 in St. George Hanover-square; the highest rates were 25·2 in Holborn, 25·3 in Strand, 25·4 in St. George Southwark, 25·5 in St. Saviour Southwark, 27·3 in Limehouse, 29·5 in St. George-in-the-East, and 30·2 in St. Luke. Taking the five groups of sanitary areas, the rate of mortality during 1895 was equal to 17·7 per 1000 in the West, 17·9 in the North, 18·8 in the South, 23·5 in the East, and 24·2 in the Central districts. To the principal zymotic diseases 11,466 deaths were referred during the year under notice; of these, 3574 resulted from diarrhœa, 2628 from measles, 2289

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ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON FOR THE YEAR 1895.

(*Specially compiled for* THE LANCET.)

SANITARY AREAS.	Estimated population in the middle of 1895.	NOTIFIED CASES OF INFECTIOUS DISEASE.											DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.											Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON	4,232,346	979	19,757	11,223	14	3506	105	235	5660	29	41,509	9·5	55	2623	829	2289	1450	5	596	10	3574	11,466	2·6	85,138	19·4	165
West Districts.																										
Paddington	122,756	10	417	238	—	71	—	8	103	1	848	6·9	—	19	14	47	20	—	13	—	94	207	1·7	2107	17·2	164
Kensington	167,671	9	532	380	—	99	4	7	259	—	1290	7·7	—	34	28	90	33	—	15	1	116	322	1·9	2759	16·5	172
Hammersmith	108,429	8	379	206	—	57	5	2	88	—	744	6·9	1	27	17	41	43	—	12	—	81	225	2·1	1810	16·7	166
Fulham	117,745	2	344	393	—	58	3	6	98	—	904	7·7	—	51	21	77	50	—	12	1	130	342	2·9	2195	18·7	187
Chelsea	99,930	4	575	307	—	73	2	8	107	—	1076	10·8	1	11	25	57	35	—	13	—	79	221	2·2	1913	19·2	168
St. George Hanover-square	74,037	4	303	96	—	39	3	1	68	—	514	7·0	1	10	10	24	28	—	9	1	36	117	1·6	1175	15·9	138
Westminster	54,003	6	179	105	—	27	—	2	30	—	349	6·5	—	25	6	21	15	—	3	—	41	111	2·1	1146	21·3	185
St. James Westminster	23,149	1	82	43	—	11	1	1	16	—	155	6·7	—	2	3	4	10	—	6	—	6	31	1·3	411	17·8	144
North Districts.																										
Marylebone	137,392	106	498	232	—	135	4	7	234	1	1217	8·9	9	25	14	35	39	—	23	1	93	239	1·7	2843	20·8	138
Hampstead	77,592	2	306	117	—	63	3	4	51	—	546	7·1	—	9	8	14	7	1	9	1	29	78	1·0	931	12·0	135
St. Pancras	233,543	15	1082	555	—	153	4	18	413	—	2240	9·6	1	228	52	151	94	—	30	—	265	741	3·2	4778	20·5	174
Islington	335,929	25	1725	595	4	197	9	22	334	—	2911	8·7	1	141	67	146	79	1	30	2	219	686	2·0	5755	17·2	143
Stoke Newington	35,234	—	131	60	—	30	—	1	28	—	250	7·1	—	7	1	5	5	—	4	—	17	39	1·1	471	13·4	116
Hackney	215,623	14	1037	501	1	257	6	13	288	1	2118	9·9	1	120	41	83	65	1	45	—	189	545	2·5	3735	17·4	124
Central Districts.																										
St. Giles	37,654	13	149	63	—	26	—	1	59	—	311	8·3	2	13	6	13	13	—	2	—	28	77	2·1	859	22·9	160
St. Martin-in-the-Fields	13,536	3	40	18	—	14	—	—	7	—	82	6·1	1	2	2	7	6	—	1	—	5	24	1·8	244	18·1	265
Strand	22,586	5	111	41	—	24	—	—	17	—	198	8·8	2	6	9	13	3	—	5	—	11	49	2·2	569	25·3	175
Holborn	32,188	31	145	58	—	20	—	1	60	—	315	9·8	—	46	6	7	8	—	—	—	21	90	2·8	810	25·2	212
Clerkenwell	65,036	11	326	143	1	56	5	4	93	—	639	9·9	—	93	17	34	41	1	11	—	53	250	3·9	1491	23·0	192
St. Luke	40,763	3	149	95	—	33	1	2	82	—	365	9·0	—	106	5	20	21	—	6	—	66	224	5·5	1226	30·2	184
City of London	33,824	6	142	43	—	35	1	2	24	—	253	7·5	—	15	4	8	3	—	13	—	12	55	1·6	720	21·4	157
East Districts.																										
Shoreditch	122,932	16	584	251	—	105	4	2	184	1	1147	9·4	2	106	30	58	87	—	22	—	155	460	3·8	2856	23·3	159
Bethnal Green	130,061	94	752	474	—	122	2	7	310	—	1761	13·6	4	116	30	101	34	—	17	—	129	441	3·4	2769	21·4	162
Whitechapel	75,820	102	508	289	1	31	—	1	114	—	1046	13·8	4	82	23	58	19	—	10	—	54	250	3·3	1824	24·1	157
St. George-in-the-East	45,227	21	300	219	—	38	2	1	69	—	650	14·4	—	58	20	50	21	—	7	—	60	246	5·5	1330	29·5	196
Limehouse	56,886	21	401	180	—	54	1	2	74	—	743	13·1	1	86	20	45	40	—	10	—	59	261	4·6	1547	27·3	212
Mile End Old Town	108,443	64	671	483	—	78	—	3	205	—	1494	13·8	1	113	26	111	42	—	17	—	114	424	3·9	2436	22·5	165
Poplar	171,230	28	991	777	1	177	11	8	278	—	2271	13·3	1	216	48	152	80	—	33	—	147	677	4·0	3865	22·6	183
South Districts.																										
St. Saviour Southwark	26,570	4	104	67	—	11	—	1	25	—	212	8·0	—	17	6	13	13	—	1	—	26	76	2·9	677	25·5	205
St. George Southwark	60,168	48	185	105	—	45	—	2	62	1	448	7·5	—	49	14	17	38	—	7	—	69	194	3·2	1524	25·4	198
Newington	119,358	20	423	279	—	84	1	9	142	—	958	8·0	4	132	16	52	71	—	15	1	110	401	3·4	2872	24·1	201
St. Olave Southwark	13,065	1	31	22	—	2	—	1	7	—	64	4·9	—	3	—	4	7	—	2	—	15	31	2·4	314	24·1	206
Bermondsey	83,861	8	304	115	1	58	—	4	74	—	564	6·7	—	114	16	29	20	—	11	—	80	270	3·2	1869	22·3	162
Rotherhithe	40,713	38	257	144	1	32	—	—	87	3	562	13·8	1	19	8	31	10	—	9	—	32	110	2·7	783	19·3	148
Lambeth	284,883	54	1416	657	1	215	20	16	372	17	2768	9·7	2	150	53	112	132	—	26	2	264	741	2·6	5567	19·6	152
Battersea	165,130	22	830	404	1	133	5	10	249	—	1654	10·0	1	98	30	92	53	1	22	—	145	442	2·7	2872	17·4	177
Wandsworth	185,956	15	654	286	—	134	3	7	220	2	1321	7·1	2	30	16	46	24	—	26	—	106	250	1·3	2747	14·8	132
Camberwell	252,737	86	874	903	—	237	2	16	313	2	2433	9·7	7	111	46	179	68	—	33	—	204	648	2·6	4610	18·3	164
Greenwich	175,183	42	860	882	2	160	—	17	211	—	2164	12·4	3	49	36	184	55	—	17	—	121	465	2·7	3305	18·9	150
Lewisham (excluding Penge)	82,410	1	283	128	—	39	1	8	77	—	537	6·5	—	12	9	14	32	—	7	—	52	126	1·5	1187	14·4	135
Woolwich	42,768	1	188	67	—	50	—	2	31	—	339	7·9	—	6	11	14	3	—	9	—	30	73	1·7	748	17·5	153
Lee	38,832	5	164	46	—	14	—	3	41	—	273	7·0	—	18	5	11	5	—	3	—	12	54	1·4	561	14·5	140
Plumstead	61,494	18	325	143	—	215	2	6	55	—	764	12·5	2	24	10	35	5	—	30	—	46	153	2·5	929	15·2	123
Port of London	—	2	—	4	—	4	—	—	1	—	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 451 cases of membranous croup.

† Including deaths from membranous croup.

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from diphtheria, 1480 from whooping-cough, 829 from scarlet fever, 611 from different forms of "fever" (including 5 from typhus fever, 596 from enteric fever, and 10 from simple and ill-defined forms of fever), and 55 from small-pox. These 11,466 deaths were equal to an annual rate of 2·6 per 1000, against 2·8, 3·5, and 2·6 in the three preceding years 1892–3–4. Among the various sanitary areas the zymotic death-rates ranged from 1·0 in Hampstead, 1·1 in Stoke Newington, 1·3 in St. James Westminster and in Wandsworth, 1·4 in Lee, and 1·5 in Lewisham, to 3·4 in Bethnal Green and in Newington, 3·8 in Shoreditch, 3·9 in Clerkenwell and in Mile End Old Town, 4·0 in Poplar, 4·6 in Limehouse, and 5·5 in St. Luke and in St. George-in-the-East. The 55 fatal cases of small-pox registered in London during 1895 were 78 below the corrected average number in the ten preceding years; of these, 9 belonged to Marylebone, 7 to Camberwell, 4 to Bethnal Green, 4 to Whitechapel, 4 to Newington, and 3 to Greenwich sanitary areas. The 2628 deaths referred to measles were 110 below the corrected average; among the various sanitary areas this disease showed the highest proportional fatality in Holborn, Clerkenwell, St. Luke, St. George-in-the-East, Limehouse, Whitechapel, Poplar, Newington, and Bermondsey. The 829 fatal cases of scarlet fever were 228 below the corrected average; this disease was proportionally most fatal in Strand, Clerkenwell, Whitechapel, St. George-in-the-East, and Limehouse sanitary areas. The 2289 deaths referred to diphtheria were as many as 610 above the corrected average; among the various sanitary areas this disease showed the highest proportional fatality in Bethnal Green, Whitechapel, St. George-in-the-East, Limehouse, Mile End Old Town, Poplar, Rotherhithe, Camberwell, and Greenwich. The 1480 fatal cases of whooping-cough were little more than half the corrected average; this disease was proportionally most fatal in Clerkenwell, St. Luke, Shoreditch, Limehouse, St. George Southwark, Newington, and Lewisham sanitary areas. The 611 deaths referred to different forms of "fever" were 52 below the corrected average; the highest fever death-rates were recorded in Hackney, Strand, City of London, Rotherhithe, and Plumstead sanitary areas. The 3574 fatal cases of diarrhœa were 627 above the corrected average; among the various sanitary areas this disease showed the highest proportional fatality in St. Luke, Shoreditch, Bethnal Green, St. George-in-the-East, Mile End Old Town, St. George Southwark, and St. Olave Southwark. In conclusion, it may be stated that the mortality from diphtheria and diarrhœa showed an excess in London last year; while that from each of the other principal zymotic diseases was below the average.

Infant mortality in London last year, measured by the proportion of deaths under one year of age to registered births, was equal to 165 per 1000, and exceeded the average. The rates of infant mortality in the various sanitary areas ranged from 116 in Stoke Newington, 132 in Wandsworth, 133 in Plumstead, and 135 in Hampstead and in Lewisham, to 201 in Newington, 202 in Limehouse, 205 in St. Saviour Southwark, 206 in St. Olave Southwark, 212 in Holborn, and 265 in St. Martin-in-the-Fields.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-CAPTAINS F. SMITH and Hinde have arrived in England on completion of a tour of service in the Straits Settlements. Surgeon-Majors Cooly and Robinson and Surgeon-Captain Hale have arrived from India on completion of their tour abroad. Surgeon-Captain Clapham has been posted to Colchester, and Surgeon-Captain Moir has been transferred from Glasgow to Aldershot. Surgeon-Captain Forde has been appointed to Londonderry.

ARMY MEDICAL STAFF.

Surgeon-Captain James Henry Daly, from half-pay, to be Surgeon-Captain, vice A. L. H. Dixon (retired), with precedence next below Surgeon-Captain J. F. Burke.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Lieutenant-Colonel Smith A.M.S., on arrival from England, is posted to the Deesa District. Surgeon-Captain Donnet, on transfer from the Madras Command, is posted to the Poona District. Surgeon-Captain Marder and Surgeon-Captain Bray are transferred from the Aden District to the Quetta District. Surgeon-Captain Davoren is transferred from the Mhow District to the Aden District. Surgeon-Lieutenant Taylor is transferred from the Bombay District to the Aden District. Surgeon-Lieutenant G. Bidie, Madras Medical Establishment, Medical Officer, 6th Infantry, to be Medical Officer, vice Surgeon-Major C. L. Swaine. Surgeon-Captain E. A. W. Hall, officiating Civil Surgeon of Manbhum, is appointed to do general duty at the Presidency. Surgeon-Major J. B. Gibbons, sub *pro tem*. Superintendent of the Campbell Medical School and Hospital at Sealdah, is confirmed in that appointment. Surgeon-Captain J. R. Adie, Civil Surgeon of Purnea, on return from leave, is appointed to do general duty at the Presidency and is attached to the Presidency General Hospital. Surgeon-Captain W. E. Jennings, M.B., and Surgeon-Major John Crimmin, V.C., have respectively delivered over and received charge of the office of Health Officer of the Port of Bombay.

NAVAL MEDICAL SERVICE.

The following appointment is announced: — Surgeon Thomas Gibbons, M.B., to be retained at Walmer for further service during the outbreak of influenza.

VOLUNTEER MEDICAL STAFF.

The following appointments are announced:—*Artillery:* 1st Northumberland (Western Division, Royal Artillery): Surgeon-Captain H. S. Baumgartner, M.B., resigns his commission. 1st Durham (Western Division, Royal Artillery): Surgeon-Captain J. W. Beattie, M.B., resigns his commission. *Royal Engineers:* 1st Flintshire (Buckley): Surgeon-Captain R. T. A. O'Callaghan to be Surgeon-Major. 1st West Riding of Yorkshire (Sheffield): Surgeon-Lieutenant T. S. Adair, M.B., to be Surgeon-Captain. *Rifle:* 1st Volunteer Battalion the Northumberland Fusiliers: Frederic William Skrimshire, gent., to be Surgeon-Lieutenant; Charles George Maclagan, M.B., to be Surgeon-Lieutenant. 2nd Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Captain C. J. Macalister, M.B., resigns his commission. 2nd Volunteer Battalion the Gloucestershire Regiment: Surgeon-Captain H. Bramwell, M.D., from the Tynemouth Volunteer Artillery (Western Division, Royal Artillery), to be Surgeon-Captain. 2nd Volunteer Battalion the Duke of Wellington's (West Riding Regiment): Robert Cunyngham Brown, M.B., to be Surgeon-Lieutenant. 17th (North) Middlesex: John William Pare, M.D., to be Surgeon-Lieutenant; Peter Sidney Spokes, gent., to be Surgeon-Lieutenant. 13th Middlesex (Queen's Westminster): Surgeon-Lieutenant W. Rose, M.B., to be Surgeon-Captain.

THE SANITATION OF CANTONMENTS IN INDIA.

Notwithstanding that so much has been done of late years to improve the condition of our troops serving in India and that, as far as order and cleanliness are concerned, our military stations and cantonments in that country generally present a very satisfactory appearance we have always felt and urged that the sanitary system and its execution was not sufficiently thorough, practical, and prompt. As far as the larger cantonments are concerned some specially trained scientific authority corresponding to a public health officer in this country is necessary, together with an officer of the Public Works Department with special knowledge and qualifications in sanitary engineering. Some agency of a special kind should be available not only to inquire into the causes of outbreaks of epidemic diseases as soon as they occur, but to safeguard the troops as far as possible against their occurrence by well-devised sanitary precautions of a practical nature. This is a step in a direction which has long been felt to be necessary, and the time has certainly come when the principle of the division of labour should be applied. We are glad to learn, therefore, that an important step in regard to the health of the army in India is about to be taken, in the shape of the appointment of a special sanitary officer with bacteriological knowledge to each large cantonment. The *Pioneer Mail* states that three appointments will probably be made in the first instance as an experimental measure at Rawal Pindi, Lucknow, and Peshawar. The importance and practical nature of the work that has been done by Mr. Hankin, the bacteriologist to the Government of the North-West Provinces, is, as we have said, fully recognised, and this will now be done on a more extended scale. In the event of the experiment being successful we hope to see the principle still further applied, and what will for the present be limited to the field of military hygiene extended to the native population. We trust that some good sanitary organisation may be instituted in India with a staff of

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sanitary commissioners to inspect and report upon the work that is being accomplished. The difficulty will be a financial one, but this will have to be met and overcome. The Government is prudent, no doubt, in feeling its way experimentally for the present and in not attempting too much at once.

ARMY MEDICAL SCHOOL, NETLEY.

The following are the names of Surgeons on probation of the Medical Staff of the British Army and the Indian Medical Service who were successful at both the London and Netley examinations. A report of the proceedings at the prize distribution will be found on page 363 of our present issue:—

BRITISH MEDICAL SERVICE.

	Combined marks.		Combined marks.
*1. Brereton, F. S.	5311	6. Waring, A. H.	4192
2. Statham, J. C. B. ...	4438	7. Hooper, A. W.	4120
3. Cooper, R. M. C. H. ...	4398	8. Ward, W. A.	4094
4. Hayes, E. C.	4322	9. Forrest, E. G.	3876
5. Probyn, P. J.	4274		

INDIAN MEDICAL SERVICE.

	Combined marks.		Combined marks.
†1. Cochrane, A. W. R. ...	3139	10. Dawes, C. D.	4219
2. Clemesha, W. W. ...	5039	11. Perry, E. L.	4193
‡3. Bakhla, C. R.	4994	12. Pinchard, M. B. ...	4189
4. Black, J. A.	4913	13. Niblock, W. J.	4175
5. Wilson, R. P.	4703	14. Harrison, C. B.	4173
§6. Lindesay, V. E. H. ...	4670	15. Payne, E. L. F.	4093
7. Robertson, J. C. ...	4459	16. Lalor, N. P. O'G. ...	4040
8. Rainier, N. R. J. ...	4430	17. Symons, T. H.	4025
9. Kukday, K. V.	4427	18. Rost, E. R.	3813

* Gained the Martin Memorial Medal and the Parke's Memorial Medal.

† Gained the Herbert Prize of £20, the First Montefiore Prize of 20 guineas, the Prize in Pathology presented by Surgeon-Major-General Hooper, I.M.S., and the de Chaumont Prize in Hygiene.

‡ Gained the Second Montefiore Prize.

§ Gained the Maclean Prize for Clinical and Ward Work.

THE ITALIANS IN AFRICA.

The Italian force under Colonel Galliano which arrived at Adagamus comprised 11 officers and 107 Italian and 1081 native troops, with a number of wounded who were carried on litters. The number of killed on the Italian side at Makaleh was 2 non-commissioned officers, 4 privates, and 33 natives, and of wounded 6 Italians and 75 natives. The losses among the Shoans is stated to have been far greater, especially on the part of their leaders. Not only did the Italian garrison of Makaleh undergo much suffering from the want of water, but the number of unburied corpses was such as to foul the atmosphere and make the fort unfit for occupation. Still, the want of water was the great difficulty. A garrison may manage to hold out for some time with a short allowance of food, but it cannot do so where the water supply for potable purposes is quite inadequate to the wants of men and animals. General Baratieri commanding the Italian troops in Abyssinia has by this time a very large addition to the force at his disposal.

THE PASTEUR FILTER IN INDIA.

The *Darjiling Standard* states that, whereas diarrhœa and other diseases attributable to impure water were rife in 1894 in the girl's school and gave the civil surgeon considerable anxiety and trouble, there has not been a single case last year, a circumstance attributed to the beneficent action of the new settling tanks at Senechal and the use of the Pasteur Filter in the institution. This result is in accordance with those published by the French War Office and Ministry of Education as having ensued on the use of the Pasteur Filter as it was applied throughout the French possessions, and no doubt account of it was taken in the decision to apply Pasteur filtration to the whole town supply during the present year.

THE HEALTH OF THE UPPER PUNJAB.

We learn from the Anglo-Indian papers that an epidemic of influenza has been, and still is, prevailing throughout the Upper Punjab at Rawalpindi, Abbottabad, Nowshera, and Peshawar. The disease is stated to be especially prevalent at Peshawar, all classes being affected and few houses in the cantonment escaping. There has also been a large amount of pulmonary disease, and the medical staff have been very fully occupied.

THE VICEROY OF INDIA.

Lord Elgin—who is now better and was able to preside at the discussion on the Cotton Bill at Calcutta—has been suffering from an attack of fever which persisted for some time, and which was attended with congestion of the liver.

Surgeon-Colonel Thomas Maunsell, A.M.S., has been appointed to be Hon. Surgeon on the Staff of the Viceroy and Governor-General of India.

The Surgeons on probation who have just passed out of Netley will join the Depôt at aldershot for instruction on the 7th inst.

Correspondence.

"Audi alteram partem."

"THE STATUS OF MEDICAL OFFICERS OF HEALTH."

To the Editors of THE LANCET.

SIRS,—In your annotation in THE LANCET of Feb. 1st, under the above heading, your annotator is either ignorant of the whole facts of the Wigan appointment or he suppresses a good deal of information which otherwise would have been interesting to your numerous readers. I have reason to quarrel with the following: "We may congratulate ourselves, however, that at the present time there are few localities in the British Islands where the duties of a health officer are so lightly esteemed as in this Lancashire borough." Never was a sentence more erroneously penned, excepting it was the one by a candidate who informed the sanitary committee (every member excepting the one who was a medical member) that the town was in a most insanitary state, and that they should have a man to devote the whole of his time to the duties of the office, and by inference he was the man. This was an unjust reflection on the committee and on the deceased medical officer of health. The committee originally decided to advertise the appointment on the old lines—namely, to allow private practice—and then decided to appoint a man *pro tem.* till the deputy medical officer of health and the medical members of the committee obtained the D.P.H. diploma, or any other man who was in practice in the town. When, however, the Local Government Board decided not to sanction a temporary appointment—and there was only one man in the town with the D.P.H.—the committee, by a majority of two out of nineteen, decided that a man should devote the whole of his time. This the Council refused to sanction, and referred it back to the committee, who again by a majority of one decided to have a man at the large sum of £300 per year. The Council refused to sanction this, and it is at this meeting your annotator takes Mr. Alderman Richards to task, who in his argument that the duties of the borough treasurer, gas engineer, and town clerk by a *lapsus linguæ* said "their duties required a much higher rate of ability." What Mr. Alderman Richards meant to say was that the medical officer of health would be paid a higher salary than any of these gentlemen, who were devoting the whole of their time, and it would cause dissatisfaction, and a thoroughly good man could not be got to devote the whole of his time as medical officer of health for less than £400 or £500 per annum and the town could not afford to pay it.

Mr. Alderman Richards is as jealous of the sanitary condition of the town as any member of the committee. He is chairman of the water committee, and is as jealous of its purity as he is of his native town being behind others of the same size in sanitary progress. Not only so, but he is a worthy father of a worthy member of the medical profession, and is not likely to cast reflections on the dignity of the profession or its offices. Your annotation should have given us some of the arguments on the other side—how work could be found for an energetic officer at £300 per annum, such as inspecting the drains, visiting infectious diseases when notified to see if they had been correctly diagnosed, and doing generally the chief sanitary inspector's work; in fact, some thought they could do with one sanitary inspector only if the medical officer of health devoted the whole of his time. No doubt some members of the committee were honest in their beliefs. The fact stated by Mr. Alderman Richards was not an imaginary one. There is no medical officer of health in any town in England who receives as much salary per year as the town clerk unless some exceptional watering-place. The remarks about the prevalence of

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typhus fever in the town of 1892 are unfortunate. Wigan had been for over twenty years without typhus fever, but it was imported here from a neighbouring city, and unfortunately we have not been able to get free from it since. The disease was not recognised at first, but this was no fault of the sanitary committee or their medical officer of health, so that a good footing was obtained before it was discovered.

The importance of sanitation is as highly appreciated in Wigan as it is in any town of the United Kingdom, and the incident of "Phillip's Folly" effigy was an electioneering one and not a demonstration against sanitary improvements. I was a member of the committee for fifteen years and know the desire of every member to improve the good old town; but a town is much in the same state as a private individual, it must cut its cloth according to its length. The town is heavily rated and has nothing to thank its ancestors for so far as sanitary posterity is concerned. No town has done more to get rid of its insanitary property, to provide an efficient drainage and sewage disposal, a pure and wholesome water-supply, paving and channeling of the streets and backyards, and an entire riddance of the privy system which existed in full force twenty-five years ago. We have an infectious disease hospital which will bear comparison with a similar institution in any town of the same size in the country, and no expense is spared to make it efficient. In fact, the committee have progressed so much during the last twenty-six years that many poor property owners have been reduced to next door to beggary through having to carry out the dictates of the sanitary committee.

I must apologise for my long letter, but I am anxious that no unjust slur shall be cast at my native town or at my committee, who do not deserve it; and I have so much confidence in the committee that should I find the duties of the office require a medical officer of health to devote the whole of his time they will on my recommendation appoint a man and give him adequate remuneration; but if the duties can be performed by myself in private practice, fully conversant as I am with the town and its surroundings, I fail to see why the ratepayers, who are at present overburdened enough, should be compelled to do more than appoint a man on the old lines. I should also state that we have two certificated sanitary inspectors, with the help of two other men doing sanitary work, such as storing, removing infectious cases, &c.

I am, Sirs, yours faithfully,

WM. BERRY, F.R.C.S.Irel., D.P.H. Glasg.,
Medical Officer of Health for Wigan.

Wigan, Feb. 4th, 1896.

MIDWIVES' REGISTRATION.

To the Editors of THE LANCET.

SIRS,—Whilst reading the address given by Sir John Williams at the Hunterian Society a communication reached me to the effect that the local secretaries of the Primrose League have been asked to appeal to their branches to use their political influence in favour of legislation on this subject. Amongst papers sent to the secretaries are communications from the pens of Sir John Williams [1] and Dr. Cullingworth.[2] In his address to the Hunterian Society Sir John Williams attributes the improvement in midwifery practice to the fact, amongst others, that the difficulty to decide whether the child could pass by natural efforts was much lessened by (1) the knowledge of pelvic measurement during life, and that at the present time pelvimetry was more practised and better understood than formerly; (2) the use of antiseptics; (3) the early use of the forceps in cases of arrest in the progress of the child in its descent from the uterus; (4) the careful attention to laceration; and (5) the early use of craniotomy in cases in which it was required.

It is certainly a matter of astonishment that anyone, whilst expressing views such as these—views with which every accoucheur must be in absolute accord—should at the same time allow the weight of his authority to be cast into the scale in favour of legislation which will tend to throw the power of decision on all the above-mentioned points into the hands of women, for the most part far from being educated, and certainly with the minimum of training in obstetrics. If such women are capable of arriving at a correct decision on such points as the size of the pelvis and the time at which artificial interference can be resorted to with the best advantage it appears to me that there must be something radically wrong with the training of medical practitioners. As a matter of fact, we all know that they are not capable of so doing, and most of us object to the State recognising them as practitioners in obstetrics at all. The appeal to the Primrose League is a matter of serious import. Our profession, absolutely unprotected as it is by sufficient organisation, is to be placed at the mercy of outside organisations by gentlemen inside the profession evidently possessing no appreciation of the probable results of legislation, which, however far it may be supported theoretically, cannot be worked out on any practical basis. The profession sees that Sir John Williams admits that uneducated women, after a few months' training, are fit to manage cases of labour, and that they are fit to decide at what period the accoucheur is to be sent for in cases of difficulty. In fact, he evidently thinks they are capable of deciding the points upon which he says depend the modern successes in obstetrics. It is not quite easy to understand why the comparatively educated nurse, who has been trained for years in hospitals, should not be equally competent to manage all medical and surgical cases up to the time which, in her opinion, is the correct one to send for either a physician or a surgeon.

I am, Sirs, your obedient servant,

LOVELL DRAGE.

Hatfield, Jan. 26th, 1896.

[1] Sir John Williams's letter to Lord Balfour of Burleigh.
[2] Dr. Cullingworth's letter to the Times.

THE HADDEN FUND.

To the Editors of THE LANCET.

SIRS,—I shall feel again obliged by your kindly inserting the enclosed two lists. The gentlemen whose names appear in the first list are (many of them) anxious that it should be known they had sympathised with Dr. Hadden, and for that reason I ask for its insertion.

I am, Sirs, yours faithfully,

JAMES CRAIG.

York-street, Dublin, Feb. 3rd, 1896.

List of subscriptions from medical men received through the *Irish Times* and private sources previously to the hearing of the appeal:—

	£	s.	d.
Mr. John Burgess, Dublin	1	0	0
Dr. Atock, Dublin	1	0	0
Dr. R. McVittie, Dublin...	2	2	0
Dr. F. R. Cruise, Dublin	5	5	0
Mr. J. T. W. Allen, Dublin	1	1	0
Dr. R. L. Heard, Monkstown	1	1	0
Dr. T. P. Mason, Dublin .	2	2	0
Mr. F. S. Morrison, Dundalk	1	1	0
Dr. W. Ryan, Dublin ...	1	1	0
Dr. T. M. McEvoy, Blackrock	1	1	0
Dr. Patton, Finglas... ...	1	1	0
Dr. T. T. Moore, Kingstown	1	1	0
Mr. John Crean, Wexford	1	1	0
Dr. B. A. Palmer, Armagh	1	1	0
Dr. A. H. Jacob, editor *Medical Press and Circular*, Dublin...	1	1	0
Dr. J. T. Hamilton, Dublin	1	1	0
Dr. W. J. Thompson, Dublin	1	1	0
Dr. R. E. Hadden, Skibbereen	1	1	0
Dr. J. W. Boyce, Blackrock	1	1	0
Dr. W. E. Hadden, Portadown...	1	1	0
Brigade-Surgeon R. Hyde, Dublin	1	1	0
Mr. Tuohey, Dublin ...	1	2	0
Dr. J. H. Benson, Dublin	1	1	0
Dr. H. W. Jacob, Great Malvern	1	1	0
Deputy-Surgeon-General T. Beaumont, Dublin ...	1	1	0
Dr. H. R. Hadden, Dublin	5	5	0
Mr. Verner Furlong, Dublin	1	1	0
Mr. Albert Croly, Rathfarnham	1	1	0
Dr. G. Nesbitt Wynne, Dublin	1	1	0
Dr. Moffat, Dublin	1	1	0
Surgeon H. J. Hadden, R.N., Bermudas	2	2	0
Mr. G. P. Cope, Dublin ...	1	1	0
Mr. C. T. J. O'Rorke, Kells	1	1	0
Medical Students, T.C.D.	10	10	0
South-Eastern Branch I. Brit. Med. Assoc.	2	2	0
Dr. MacDowell Cosgrave, Dublin ... Fee in case returned.			

Additional Subscriptions.

	£	s.	d.
Dr. C. B. Ball, Dublin ...	1	1	0
Sir J. Banks, K.C.B., Dublin	1	1	0
Dr. A. Patton, Finglas ...	1	1	0
Mr. Horne, Dublin	1	1	0
Dr. Pim, Chapelizod ...	1	1	0
Dr. Starkey, Dublin... ...	1	1	0
Dr. Nelson, Belfast	1	1	0
Mr. Fitzmaurice, Dunmanway	0	2	0
Mr. Westropp, Lisdoonvarna...	0	10	6
Dr. Ryan, Ballieborough	0	10	0
Mr. Finegan, Mullingar	1	1	0
Mr. Jefferson, Lisburn ...	0	10	6
Dr. Cotter, Cork	1	1	0
Dr. J. Barton, Dublin ...	0	10	6
Mr. Dormer, Newtownbarry...	1	1	0
Dr. Martin, Portrush ...	0	10	0
Mr. Denham, Dublin ...	1	1	0
Dr. McCullagh, Belfast ...	0	10	6
Dr. S. Gordon, Dublin ...	1	1	0
Dr. Atthill, Dublin	1	1	0
Brig.-Surg. Potter, Dublin	1	1	0
Dr. W. J. Smyly, Dublin	1	1	0
Dr. A. W. Baker, Dublin...	1	1	0
Dr. Hearn, Rathmines ...	1	0	0
Dr. Mussen, Glenavy ...	0	10	6
Mr. Taylor, Tanderagee...	0	10	0
Mr. Scott, Kingstown ...	1	1	0
Mr. Kennefick, Clonmel...	0	10	6
Mr. Bradley, Drogheda ...	0	10	0
Dr. Ronaldson, Haddington	1	1	0
Mr. R. L. Swan, Dublin...	1	1	0

THE PRESCRIBING OF PIPERAZINA.

To the Editors of THE LANCET.

SIRS,—In October, 1894, I bore testimony for piperazina as a solvent for urates and a remedy in gout. Since then it has

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given satisfaction in most cases, but failed in a few because, as I am now led to believe, it was combined with vegetable tinctures or infusions. It appears that with these it is incompatible. Other practitioners have reported adversely upon the drug, and probably because it was combined as above. Dissolved in distilled water or in tabloids and taken on an empty stomach it will meet a fair trial. I intend to use it by subcutaneous injection for the dispersion of uratic deposits, which are so troublesome in the palms especially. It is regrettable that its price still ranges as high as 10*s.* an ounce.

I am, Sirs, yours truly,

Cavendish-square, W., Feb. 1st, 1896. E. D. MAPOTHER.

"A CASE OF GONORRHŒAL HEMIPLEGIA AND APHASIA."

To the Editors of THE LANCET.

SIRS,—In your issue of Jan. 11th last, on p. 115, appeared a notice of my report on a Case of Gonorrhœal Hemiplegia and Aphasia. The case was that of an acute right hemiplegia with motor aphasia, accompanied by convulsions, occurring in a young woman suffering from gonorrhœal parametritis, salpingitis, and peri-oöphoritis. My critic, after stating minutely the facts of my observations, then continues: "Dr. Bruns concludes that, looking at the history of the sudden onset, accompanied by epileptiform attacks, the condition determining the hemiplegia was an embolic one, and that the embolism had its origin at the focus of gonorrhœal inflammation in the Fallopian tubes. But it is difficult to see how this could happen. An embolus breaking off from an inflammatory focus in the region of the Fallopian tubes would naturally have to traverse the pulmonary capillaries before it could reach the brain. *This, of course, is impossible*, and if such an embolus had travelled to the heart in the large veins the (result) might have been a pulmonary apoplexy. But how such an embolus could get to the brain we fail to see, and it seems more feasible to ascribe the hemiplegia to thrombosis occurring in cortical vessels, the thrombosis being probably determined by the morbid blood state to which the gonorrhœal inflammation had given rise." This unequivocal criticism, which charges me in pretty round terms with serious anatomical and pathological blunders, contains as many mistakes as it does sentences. Let me substantiate my statement. In the first place it is by no means essential that a thrombus in a peripheral vein should, in order to produce embolism in the general circulation, originate material of necessity traversing the capillary network of the lung. Setting aside the possibility of patent foramen ovale—a possibility which I do not of course offer as an explanation of the case—it must be remembered that direct anastomoses undeniably exist between the larger pulmonary arteries and veins;[1] through these anastomoses fairly large masses of thrombus can penetrate from the pulmonary into the systemic circulation. Further, it is perfectly possible for tiny particles coming from systemic veins to pass through the capillaries of the lung into the left heart, and thence into the systemic circulation to enter and finally to block some one or other systemic vascular area. This possibility is taught by the text-books of pathological anatomy, and was actually experimentally demonstrated by the Webers years ago.[2] Lukjanow, who concedes the same possibility, supposes that tiny particles that have traversed the pulmonary capillaries may increase in size by accretion of fibrin or of blood corpuscles and thus then form emboli. Again, it is possible for such a particle to temporarily adhere to the inner face of a large vessel at some point and there grow in size and then become dislodged and swept off to a more peripheral spot, where it will plug the vessel and constitute an embolus. Now in the case reported by myself it must have been a question of small emboli. Obstruction by a tiny particle from a thrombus, in the way which Lukjanow supposes, during the course of the night which preceded the definite paralysis is perfectly possible.

It is only necessary to remember the pathology of pyæmia, where it is certain that inflammatory thrombi arising in the veins may cause purulent foci in any part of the systemic circulation, and that, too, as Billroth[3] already showed, without primary foci in the lungs (or, as my critic puts it, a pulmonary apoplexy). It is thus comprehensible that I did not deem it necessary to add special explanations to my interpretation of the pathogenesis of my case. I am, however, far from thinking that mine is the only possible explanation. I only think it the more probable and certainly more plausible than that laid down by my critic, although the possibility of his is not to be denied. Certainly, however, my explanation is not absurd, and if my critic cannot see its justification it is because he undertook the criticism without sufficient knowledge of the pathology of thrombosis and embolism.

I am, Sirs, yours faithfully,

Lavesstrasse, Hanover, Jan. 9th, 1896. L. BRUNS.

[1] Cf. Lukjanow: Outlines of the General Pathology of the Vascular System, Leipzig, 1894, p. 1389.

[2] See, for instance, Schmaur, Principles of Pathological Anatomy, second edition, 1895, p. 38, where speaking of the considerable diameter of the pulmonary capillaries; also Rindfleisch's Textbook of Pathological Histology, 1878, p. 163.

[3] Surgical Pathology, 1880, p. 404.

CHEMISTRY IN THE EXAMINATIONS AT LONDON UNIVERSITY.

To the Editors of THE LANCET.

SIRS,—The Chemistry Examination at the Intermediate M.B. Examination of the London University has frequently in previous years been severely criticised. The chief ground of complaint against the examination has been that the questions set are too severely technical and not suited to the work of medical students, but rather to those who intend to be professional chemists. In some cases the questions set have been outside the range of the syllabus. We have just been up for this examination and feel that this evil continues, and in this we are supported by those who teach us chemistry in our medical school. The questions set this month were the following:—

1. What experiments would you make in order to prove that glycocine contains one and urea two amido groups? What is the effect of hot aqueous potash on each of these compounds? 2. What are the chief constituents of ordinary petroleum oil? How would you ascertain whether it contained olefine hydrocarbons? 3. How would you detect and estimate the nitrogen in a specimen of leucine? Describe an alternative method of estimation and calculate the percentage of nitrogen in this substance. 4. What means would you adopt in order to separate in a pure state each of the constituents of a mixture of alcohol, aldehyde, and ether? Describe the characteristic properties of each of these substances. 5. Describe precisely *how you prepared* pure aniline from benzene as a starting-point. What would be the best method (other than reduction) of separating pure aniline from a mixture of it with nitrobenzene? 6. Explain fully the chemical changes involved in the principal tests for the following substances: Formic acid, cane sugar, benzoic acid, alcohol, and salicylic acid.

Your readers will be able to judge for themselves if these are fair questions for a pass examination. Of recent years chemistry has been the most fatal subject to candidates, and we feel the grievance very acutely, for whereas in the other subjects the questions asked have been on their wide and important aspects, those in chemistry are on out-of-the-way points and more suitable for a professional chemist's examination.

We remain, Sirs, your obedient servants,

Feb. 1st, 1896. MEDICAL STUDENTS.

"VOLUNTEER MEDICAL ORGANISATION."

To the Editors of THE LANCET.

SIRS,—I am sure every well-wisher for the good of the Volunteer Medical Service will hail with delight the appearance in THE LANCET of Feb. 1st of the suggestions made by the sub-committee of the Council of the Volunteer Medical Association. The present system has been in existence now for some years, and I believe has given nothing but dissatisfaction all round. Why are the vacancies in the Volunteer Medical Staff Corps not filled up as in other branches of the volunteer service? It is quite a common thing for a company to be commanded by a surgeon-lieutenant when his rank ought to be surgeon-major. Promotion by length of service is all very well in the regimental system, but I believe, like myself, most of the officers of the Volunteer Medical Staff Corps are strongly in favour of each company having its officers of the proper rank as laid down in

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the regulations for the establishment of a bearer company. I know an officer who has had over twenty-one years' commissioned service and is in command of two companies of the Volunteer Medical Staff Corps, and yet because he has only had twelve years' medical service he has to be content with the rank of surgeon-captain, whereas in the same neighbourhood there is a medical officer who has only had about half the length of service and yet he has the rank of brigade-surgeon-lieutenant-colonel. As promotion takes place now it is unfair and unjust. Why should promotion take place by length of service in the Medical Staff Corps, and, on the other hand, in infantry brigades can men be jumped up to the rank of brigade-surgeon-lieutenant-colonel? I contend that this state of things should not be allowed by the authorities to go on any longer. There is no doubt that numbers of your readers are greatly interested in this matter and will esteem it a great privilege if you will allow them to ventilate their grievances in your valuable columns. I am, Sirs, faithfully yours,

Feb. 4th, 1896. MEDICO.

HOUSE SURGEONS AND GENERAL PRACTITIONERS.

To the Editors of THE LANCET.

SIRS,—I should be glad of an expression of opinion from you as to whether a house surgeon is justified in attending a case privately that he has seen in his ordinary work, especially when there seems a chance of obtaining a fee. I know a case at present in which a house surgeon of a metropolitan hospital is attending privately a gentleman who has dislocated his shoulder. I need hardly say that if this is allowed I, as a general practitioner, shall raise my voice against it. Perhaps a hint in THE LANCET will stop the practice, for I believe that it is growing.

I am, Sirs, yours truly,

Feb. 5th, 1896. SUBURBAN PRACTITIONER.

*** It is certainly not fitting for a house surgeon to engage in private practice.—ED. L.

"A BRUTAL PROCLAMATION."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Jan. 25th, under the above heading, you copy one of the orders of Marshall Martincz Campos, and afterwards you add that "it seems that Spain seeks to discharge her vengeance upon their wives and children trying to win back her lost districts by subjecting these helpless ones to privation." Now this order was given to prevent the rebels getting clothing, provisions, and salt by means of women and children, who were continually being caught taking these provisions, &c., and owing to their sex and age were not even punished. The only privation imposed by this order was that women and children had to buy by means of a man, either their brother, husband, relation, or neighbour—in fact, a person responsible to the authorities. The writer of your article is not a friend of Spain or fair play, for he would know that Marshall Campos has been called to Spain on account of treating too well, and allowing the insurgents all sorts of considerations after they have been burning and killing and blowing up passenger trains and committing atrocities worse than in Armenia. I trust that after having gathered other information you will in your next number let your readers know that Spaniards are still more gallant towards women than any other people of the world. I remain, Sirs, yours truly,

Feb. 1st, 1896. A LOVER OF IMPARTIALITY.

HEALTH OF THE ITALIAN TROOPS IN THE RED SEA COLONY.

(FROM OUR ROME CORRESPONDENT.)

PRESENT interest attaches to the Medico-statistical Report on the Health of the Italian Troops in the Red Sea Colony during 1894, a report compiled under the direction of Major-General Dr. Ruffa, of the Army Medical Staff.

During the twelve months in the garrisons of the colony there was a mean force of 1522 Italian men, excludi native troops in Italian pay, of which latter there are no statistics. The former numbered a maximum of 1868 in March and a minimum of 1313 in December. The troops of the line admitted during 1894 into hospital or infirmary throughout the colony were 1184. But considering that, of the admissions into the hospital at Massowah, 7 came from sundry infirmaries where they had spent the beginning of their cure, it follows that the real number of admissions was 1174, of whom 720 entered hospital and 424 entered infirmaries. There was hence an annual mean of 771 on the sick-list per 1000 of the force, of whom 473 were in hospital and 298 in the infirmaries. Adding to these the 72 remaining on the sick-list on Jan. 1st, 1894, we have for the garrisons of the Red Sea Colony a total of 1253 cured, of whom 773 were in hospital and 480 in the infirmaries. Of losses by death in 1894 there were in all 7 of the combatant arm (2 officers and 5 linesmen). Of the officers, 1, Captain Carchidio Malavolti, died on the battlefield at the taking of Kassala. Of the linesmen 1 only died in hospital, 3 in the infirmaries, and 1 outside these establishments. The mortality of the troops was therefore 3·3 per 1000—the lowest figure reached from the beginning of the military occupation of the colony. Add to this that of the 5 deaths 1 was due to an accidental lesion, another to suicide, and the mortality from disease alone sinks to 2·0 per 1000. The days spent in hospital were, all told, 25,142, or 16,721 in hospital and 8821 in the infirmaries. The days 'diassegno' (specially assigned) having in all been 55,544, there were thus, as a whole, forty-five days of actual illness per 1000. The following tables contrast the health conditions of 1894 with those of 1893:—

Disease and deaths during—	Years. 1893.	1894.	Difference. More.	Less.
Disease per 1000	1014	771	—	243
Deaths "	8·7	3·3	—	5·4
Days spent in hospital per 1000 "diassegno"	56	45	—	11

Causes of Death in 1894.

	Number of deaths. Officers.	Linesmen.	Total.
Dysentery	1	—	1
Pleuritis	—	2	2
Acute enteric catarrh	—	1	1
Accidents (by fire-arms)	—	1	1
Suicide (by fire-arms)	—	1	1
In action (spear-thrust)	1	—	1
Total	2	5	7

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Temperance Work in Liverpool.

WHAT is now known as Temperance Sunday is generally held in Liverpool towards the end of January when the annual meeting of the Church of England and of other temperance societies are held. The advocates of temperance have had plenty of material for discussion this year. Lady Henry Somerset, at a meeting of ladies interested in the temperance movement, has been giving her views on the case of the notorious woman, Jane Cakebread. It is to be hoped that the moral lesson to be learnt from the case of this wretched woman will not be lost sight of. Lady Somerset has expressed her conviction that Jane Cakebread is not an inebriate, but a mad woman; and this has received confirmation in the fact that after a medical examination by order of the magistrate she has been declared to be of unsound mind. It would be interesting to know when this began and whether it may be regarded as the result, direct or indirect, of a long career of intemperance. We have had in this city, and still have, many women who resemble Lady Somerset's late *protégée* in spending a large portion of their lives between the police-court and prison. Mention was made in a former letter of one of these wretched women, who, after nearly three hundred appearances before the magistrates and many acts of violence, died in H.M. Prison, Walton. Surely the time has arrived when such cases should be dealt with differently, and magistrates should have power to commit such women to prison for twelve months at least.

The Powers of Licensing Magistrates.

It has been observed that the wisdom of one generation is

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the folly of the next, and in Liverpool the saying has had a painfully practical illustration in the matter of granting licenses. The licensing magistrates of the past generation, regarding monopoly as a terrible evil, granted licenses to every one applying. The result is, as may be guessed, the existence of an overwhelmingly excessive number of public houses, which it will take many years of steady reduction to bring down to a number proportionate to the reasonable wants of the population.

Hospital Sunday.

Among other sermons preached on Jan. 12th the one delivered by the Rev. Herbert M. Braithwaite at St. Saviour's Church has been printed by request. It is entitled "Christian Patriotism, a Sermon on Behalf of Hospitals." It gives their claims in a clear, lucid, and concise manner, and will well repay perusal. Its price is 6*d*., and the profits are to be given to the Liverpool Hospital Sunday Fund.

The Liverpool Sailors' Home.

The annual meeting of this valuable institution was held yesterday. During the year 1895 there had been a total of 5632 boarders, including apprentices. Their health had been good, the diseases from which they suffered being of much the same type as in past years.

Feb. 5th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The New Photography in Edinburgh.

THE startling discovery made by Professor Roentgen in photography has aroused much interest in professional circles in Edinburgh as elsewhere. Dr. Dawson Turner, Lecturer on Physics at Surgeons' Hall, Edinburgh, has been experimenting with the process as described, and has obtained some successful and interesting results which do not differ from those already recorded. He has found that tobacco is impervious to the light, although not quite so markedly as bone, cigars in an aluminium case giving a distinct shadow.

Fire at the Royal College of Physicians' Laboratory, Edinburgh.

Early on Saturday morning of last week the laboratory in Lauriston-lane of the Royal College of Physicians of Edinburgh was found to be on fire. The fire began on the top landing in one of the histology rooms, and is thought to have possibly originated from a Bunsen burner under a water-bath. The fire was subdued before more than the top storey had suffered, but the damage was considerable and is estimated at considerably over £1000. Several workers in the laboratory have lost material on which they were working and also valuable specimens and notes which cannot be replaced. Other losses are understood to be largely covered by insurance. The premises belong to the Royal Infirmary, and preparations were beginning to be made with a view of removing the laboratory to the new premises recently purchased by the College.

The Longmore Hospital for Incurables, Edinburgh.

The annual report of this useful institution shows that there is now accommodation for 110 patients, while there was only accommodation for 22 when the hospital was opened twenty-one years ago. There is still much demand for more beds, and the managers hope to be able to supply more, thanks to a legacy of £25,000 left by Mr. Peter Waddele of Leith. When a new wing is built to the west of the present building it is proposed to set apart two wards for the use and treatment of phthisical patients. The managers regret a falling-off in the subscriptions for the year amounting to about £500, and also a falling-off in donations. Out of 184 applicants for admission only 80 could be received.

The Boarding-out of Pauper Lunatics.

In consequence of an assault made by a pauper lunatic boarded out in Collessie parish, Fife, on a woman, and a fatal assault on one of her children, there has been some anxiety aroused in the minds of persons living in the parishes where this system of boarding-out is carried out to a considerable extent. The matter has been brought before the Lunacy Board and fully investigated by them, and, while they deplore the incidents which have happened, they do not consider them of sufficient importance to warrant altering a line of policy which has been of marked public advantage from various standpoints. In this the board seems to be supported by the opinion of the local medical men. The board proposes to restrict the number of boarded-out patients in various parishes to pauper lunatics chargeable to these parishes.

Glasgow Central Dispensary.

The subscribers to this Institution, which conducts its work amongst the very poorest class, held their annual meeting on the 30th ult. To prevent abuse of the charity patients are expected to pay a penny for each bottle of medicine or surgical dressing. The number of consultations last year was 12,482.

Faculty of Physicians and Surgeons, Glasgow.

The following gentlemen having passed the necessary examinations and been balloted for have been admitted to the Fellowship of the Faculty:—Geo. T. Beatson, B.A., M.D., and R. H. Parry, L.R.C.P. and S. Edin.

Dumfries Infirmary.

It has been decided to transfer from the annual subscribers to the directors the right of appointing physicians and surgeons to the hospital, reserving, however, the right of the subscribers at the annual meeting to veto any appointment (if so desired) by a majority of not less than two-thirds.

Glasgow Royal Infirmary.

The 101st annual meeting took place on the 28th ult. The Lord Provost, in moving the adoption of the report, referred to the foundation of the Convalescent Home and its endowment by Miss Schaw with a sum of £15,000; also to donations of £500 by Lord Overtoun and Sir Charles Tennant. Sir John Burns, in seconding the report, expressed the opinion that general infirmaries, like those for infectious diseases, should be supported by the rates managed by the municipal authorities. This view was energetically opposed by the chairman of the House Committee, and from subsequent correspondence in the local newspapers public opinion appears to be in favour of the present arrangement.

Glasgow Royal Hospital for Sick Children.

The report for last year indicates a considerable increase in the number of patients, especially in the out-door department. The directors have, therefore, decided to increase the accommodation at the dispensary, and the Bellahouston Trustees have intimated their willingness to give a sum of £1000 for this purpose.

Glasgow Sanitary Staff.

The members of the staff dined together on the evening of the 28th ult., Dr. A. K. Chalmers being in the chair. Bailie Macfarlane proposed the toast of the evening, and expressed on behalf of the corporation the hope that Dr. J. B. Russell would shortly be able to return to his duties in restored health.

Corporation Lodging-house for Aberdeen.

The report of the lodging-house committee recommending the adoption of the Housing of the Working Classes Act and the erection of a corporation lodging-house in East North-street has been adopted, on the understanding that the number of lodgers to be provided for may, for a beginning, be somewhat under that suggested by the committee. The original recommendation was that accommodation be provided for 250 male lodgers, the cost of the buildings being estimated at from £10,000 to £11,000. The site has cost £3400 additional, and the committee will afterwards report as to the precise number of lodgers to be provided for.

Feb. 4th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

An Interesting Veterinary Case.

A CASE of great interest and importance to the veterinary profession has just been decided by the Right Hon. the Recorder of Dublin. The particulars are briefly as follows:—The Right Hon. T. Meade, LL.D., sent a horse some months ago to the Messrs. Freeman, the veterinary surgeons, for treatment. The horse was sent home after a time cured, but as his owner chanced to be out of town a groom at Mr. Meade's residence requested the Messrs. Freeman to keep the animal until his return, which they agreed

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to do. A few days later the horse, while being exercised at Messrs. Freeman's establishment, struck his hoof against a ridge at the entrance to the ring and fractured his pastern bone so badly that it became necessary to destroy him. The Messrs. Freeman now brought an action for the recovery of £48 for stabling charges and medicines for the cure of the horse, while Mr. Meade brought a counter claim of £50 for the animal's death. It was stated that the existence of the ridge which caused the injury was a proof of negligence on the part of the veterinary surgeons, and the case was adjourned for some days so that the Recorder should have an opportunity of personally examining it. After he had done so, and after an exhaustive hearing of the case, his lordship delivered judgment yesterday in favour of the claim of the veterinary firm and against the counter claim of the defendant, which was dismissed.

Addresses to Her Majesty.

Addresses conveying respectful condolence and sympathy with Her Most Gracious Majesty the Queen and with Her Royal Highness the Princess Beatrice on the melancholy occasion of the death of His Royal Highness Prince Henry of Battenburg have been presented by the Royal Colleges of Physicians and Surgeons, the Irish Medical Association, and other public bodies, and also by the Lord Mayor of Dublin.

The National Hospital for Consumption in Ireland.

The building of this hospital, which was commenced in February, 1894, is now on the eve of completion, and is to be opened for the reception of patients by the Marchioness of Zetland at an early date.

Enniskillen County Infirmary.

Mr. Gunning, who through ill-health has been obliged to resign his post as honorary assistant surgeon and apothecary to the Enniskillen County Infirmary, has just been most cordially thanked by the governors for his valuable services rendered to that institution, and in acknowledgment of these the board has presented him with one year's salary of his position as apothecary.

Health of Belfast.

From the report presented at the meeting of the city corporation on Feb. 1st I find that during the past four weeks 132 cases of zymotic disease have been reported, and of these 69 were scarlet fever and 30 measles. In the five weeks ending Jan. 18th there were 846 births and 694 deaths in Belfast. Of the deaths 87 were from zymotic disease, 94 from phthisis, and 180 from diseases of the respiratory organs. The annual death-rate from all causes was 26·2. During the past five weeks the weather has been dull, wet, and unsettled, but the temperature has been higher than usual, and there have been no frosts or snow. Notwithstanding the mildness of the season the health of Belfast remains, as usual, in a very unsatisfactory condition, the death-rate from chest affections being unusually high and that from zymotic diseases greater than usual. Scarlet fever is still prevalent in every district of Belfast and caused 21 deaths in the period named. It appears, however, to be gradually subsiding.

The Election of a Representative on the General Medical Council.

The Cork medical profession, who have pledged themselves to support a provincial candidate, as they believe Dublin is already fully represented on the General Medical Council, have undertaken a preliminary poll between the three provincial candidates now in the field—Dr. Cuming, Mr. Greene, and Dr. MacDonnell—and have issued voting papers, which are to be returned on or before Feb. 8th, when the unsuccessful candidates are to retire (as agreed) in favour of the one who receives the greatest amount of support. Elaborate preparations have been made for counting the votes expeditiously, as it is felt that the sooner a single provincial candidate is before the electors the better. The selected candidate is to pay the expenses of the preliminary vote. The final contest will then be between a provincial candidate and Dr. Thompson and Dr. Jacob, both of Dublin.

Irish University Education.

The question as to what form the Government proposals will take on Irish university education is being very keenly debated at present in the north of Ireland. Everyone admits a change is coming, the present unsettled condition of affairs being very unsatisfactory. Many solutions are being put forward and discussed, but there is a growing feeling that the matter will not be touched during the present session.

Small-pox Imported into Limerick.

Some alarm was created in Limerick last week when it became known that a steamer had arrived there with small-pox on board. Mr. Shanahan, medical officer of health, acting on instructions, visited the vessel, the *North Cambrian*, prior to her arrival in dock, and found nine out of a crew of twenty-four suffering from small-pox. Some of the cases appear to have been rather mild, as Mr. Shanahan states six of the invalids were going about the ship discharging their ordinary duties. All were promptly removed to a ward specially set aside for such cases at the Union Hospital. No one is allowed to go on board and disinfection is being carried out. In an interesting report to the Local Government Board Mr. Shanahan states that the disease appears to have been contracted in New York, where one of the crew was sent to hospital, and three other members of the crew then adopted the precaution of getting revaccinated. None of the latter have shown any signs of the disease, and some of those who have it in a very mild form exhibit very marked signs of primary vaccination. The Local Government Board with commendable promptness have sent down their inspector (Dr. T. J. Browne) to see that all precautions are taken to prevent the spread of the disease.

Feb. 4th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Books as Carriers of Disease.

IN THE LANCET of Jan. 18th there appeared an annotation on some remarks in the *Author* founded on observations conducted by Dr. du Cazal and Dr. Catrin on the transmissibility of disease by books. This important subject is worthy of a fuller mention, and I therefore give in detail a synopsis of the result of the investigations of our *confrères*.[1] Do books contain microbes, especially pathogenic varieties? New and old books that had been in use in the wards of hospitals were soaked in bouillon, which was then added to different culture media and used for inoculating various animals. In this way it was found that even an absolutely new book was not aseptic, but that it contained no pathogenic germs, which, however, are invariably present in old books. Is a book soiled with the secretions of a person suffering from infectious disease capable of transmitting the disease to another individual? The experiments devised for the elucidation of this point concerned the streptococcus, the pneumococcus, Löffler's diphtheria bacillus, the typhoid fever (Eberth's) bacillus, and Koch's tuberculosis bacillus. With regard to the first three germs the answer is in the affirmative, whereas it is in the negative for the last two. Dr. du Cazal and Dr. Catrin are positive as to the impossibility of rendering animals tuberculous by means of paper charged with Koch's bacillus. Can books be easily and thoroughly disinfected? Fumigation with formic aldehyde yields good results, but the application of this method on a large scale is difficult. Disinfection in the autoclave is perfect, all germs being destroyed; but while stitched volumes bear no trace of the process, binding is deteriorated. After all, the safest plan is to burn all books that have been exposed to a source of contamination.

Sero-therapy as a Remedy for Snake-bites.

A communication due to the collaboration of Dr. Calmette (Director of the Pasteur Institute of Lille), Mr. Hankin of Agra, and Dr. Lépinay of Saigon, and having reference to the efficacy of Dr. Calmette's method of treatment of snake-bites, was read at the Académie des Sciences on the 27th ult. Large supplies of serum furnished by immunised horses have been prepared by this investigator and shipped to countries infested by poisonous snakes, particularly India and Australia. This serum is endowed with 20,000 degrees of activity—i.e., one decigramme of it injected into a rabbit weighing two kilogrammes enables the animal to resist a dose of cobra venom sufficient to kill a rabbit of the same weight in three or four hours. Mr. Hankin and Dr. Lépinay have conducted experiments on its efficacy against divers snake poisons and also on the persistence of its preventive properties in hot countries.

[1] Annales de l'Institut Pasteur, 1895, No. 12.

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These experiments were conducted at the bacteriological laboratories of Agra and Saigon respectively. Mr. Hankin reported that on Dec. 23rd, 1895, the serum despatched to him on Oct. 1st, 1895, which serum possessed when shipped 10,000 degrees of immunity, retained on its arrival at Agra 2000 degrees—i.e., half a gramme per kilogramme body weight conferred immunity on a rabbit against a mortal dose injected one hour after the injection of the serum. A most interesting practical application of the method was made by our distinguished compatriot. The natives of certain districts are in the habit of showing their dislike of neighbours by poisoning their cattle either with arsenic or with a rag impregnated with a mysterious substance which is introduced into the animal's rectum. Mr. Hankin had a shrewd suspicion that this toxic substance was none other than snake poison. To prove it he prepared with these rags an extract which he divided into two equal parts. One part he mixed with a small quantity of anti-venomous serum, and each portion was injected into a rabbit (the two rabbits were of the same weight). The rabbit that had received the mixture remained unaffected, its companion dying within the hour. Dr. Lépinay has studied the action of the serum on the virus of the bungarus, trimeresurus, and naja tripudians. Animals immunised with the serum successfully resist these viruses. An Annamite bitten by a naja belonging to a lot destined for the Pasteur laboratory was saved by the serum. The bite, a very deep one, was situated on the right index finger. One hour after the infliction of the bite an injection of twelve centigrammes of serum was practised at the military hospital. The injured finger was then already very swollen and painful. On the morrow all swelling had disappeared, and the man was well excepting for some stiffness of the terminal joint of the finger. One of the same lot of najas bit a woman at the Bac-Lien Market. She died, untreated, two hours later. Dr. Calmette claims for his serum certain curative properties, provided it be used within a short time of the bite.

Ashanti and Madagascar—a Comparison.

The *Médecine Moderne* waxes bitter over the comparative tables of mortality in our Ashanti and their own Madagascar expeditions. The writer states that the British organisation was so perfect that of a total of 1800 men only 3 died—one, a private, of remittent fever, plus a corporal and a sergeant, who succumbed to sunstroke. In Madagascar, in March 1 soldier died per diem; in April 2 per diem; in May 4 per diem; in June 8 per diem; in July 12 per diem; in August from 24 to 40 per diem; and in September 15 per diem, making a total of 6000 deaths out of a corps of 15,000. It is also pointed out that whereas the British troops lost no time on their arrival at Kumasi in arranging cricket matches, the survivors of the French force had just sufficient strength remaining to drag themselves to the hospital. Growlers who maintain that "they manage things better in France" will please take note.

Sero-therapy per Rectum.

M. Chantemesse[2] reminds us that in the early days of sero-therapy the method was only utilised in the treatment of diseases (diphtheria and tetanus) where the specific germ does not exist, or exists only exceptionally, in the blood of the patient. The only inconvenience of the subcutaneous injection was a slight pain, some erythema, or urticaria. Of late the method has become generalised, and is employed more and more to combat diseases characterised by the presence in the blood of the specific micro-organisms. In these cases the serum injected is, as a rule, unirritating. In certain rare instances, however, the part chosen for the injection becomes the seat of intolerable pain, much swelling, and even abscess. M. Chantemesse has satisfied himself that these complications are not due to the impurity of the serum, but to an afflux to the part of a crowd of leucocytes crowded with germs. The resulting abscess is endogenous in origin. He has seen such abscesses develop after the injection of antistreptococcic serum. In order to obviate these inconveniences M. Chantemesse has in twenty cases injected the serum into the bowel. He states that absorption is thus easy, and exempt from the inconveniences above mentioned. The bowel is first washed out with an ordinary water enema, and the serum is then introduced through a gum elastic catheter twenty centimetres long attached to a syringe. It is claimed for the rectal method that it is as efficacious as the ordinary or subcutaneous, the same feeling of *bien-être*, the same fall of temperature, &c., occurring in one as in the other. Is the protective power of a dose of serum absorbed by the intestinal mucous membrane equal to that of the same dose introduced into the areolar tissue? M. Chantemesse is inclined to answer in the affirmative, but he suggests the advisability of further researches on this head. In cases of serious erysipelas he has without any inconvenience whatever to the sufferer injected into the bowel in a few days as much as 200 or 300 cubic centimetres of serum. A local application of great value in erysipelas is serum mixed with five times its weight of lanoline. The pain, redness, and swelling are quickly reduced by this ointment. Roux's serum employed as an enema in three cases determined results as satisfactory as when administered in the ordinary way.

Feb. 4th.

[2] Société Médicale des Hôpitaux, Jan. 31st, 1896.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Serum Treatment of Pulmonary Tuberculosis.

DR. ENRICO DE RENZI, Professor of Clinical Medicine in the University of Naples, whose monograph on the Decline of Nutrition in the Human Subject[1] was perhaps the most striking feature in the programme of the Sixth Congress of Internal Medicine, has just set forth the results of a series of experiments in his own clinique on Professor Maragliano's serotherapeutics in tuberculosis pulmonaris. Professor De Renzi out of a number of well-marked cases of pulmonary tuberculosis selected twenty-two, and these he subjected to the Maragliano treatment—the appropriate serum being supplied him gratuitously by Dr. Maragliano. In each case he has been able to register distinct improvement; in some the positive arrest of the malady. His results, he holds, amply justify the previsions originally formed by Dr. Maragliano of his special *modus curandi*—results, I may add, obtained in other cliniques attached to medical schools in Italy. These attestations are peculiarly encouraging to the Genoese pathologist, whose efforts to obviate every source of fallacy in his remedy and its application are marked by a caution and circumspection not uniformly associated with Italian medicine. His "Istituto Anti-tubercolare" is well worth a visit from English-speaking colleagues who may be sojourning on the Riviera and who, I have good reason for stating, will be particularly welcome. Its laboratories have lately been supplemented by others within the same building—one for the experimental and clinical checking (*controllo*) of the serum, another for testing the toxic power (*tossicita*) of the products used to inoculate the animals experimented on, a third for the preparation of these toxines (*tossine*), to say nothing of the stalls and hutches for the animals themselves, there being accommodation, *inter alia*, for 500 rabbits, some thousands of which have been inoculated within a few months. Every detail of the institute is creditable to Dr. Maragliano and his working staff. The expense of the whole, I am informed, has already exceeded 100,000 fr.

Photography through Opaque Bodies.

Experiments by way of testing and illustrating Professor Roentgen's discovery proceed apace. At the University of Padua Professor G. Visentini has had brilliant success. In his "Gabinetto di Fisica" he succeeded in reproducing the osseous structure of the human hand in a living subject—an anatomical demonstration, in fact, of singular precision, delicacy, and completeness. Over and above these experiments on the animated organism he has performed others on inert substances, and under special conditions has proved, contrary to the opinion of Roentgen, that even metals may be crossed by the "x" rays. It is interesting to note that thirty years ago the late Sir J. Y. Simpson of Edinburgh, in a memorable graduation address, predicted that science was on the eve of a discovery identical with that of the Würzburg physicist. Sir James Simpson, in fact, anticipated that the light to which opaque screens are no longer impervious would become available in abdominal surgery and greatly simplify diagnosis and operation. *Nil novi sub sole.*

Professor Mosso on Physical Education.

The Professor of Physiology in the University of Turin delivered on Jan. 30th in the Aula Magna of the Collegio

[1] Vide THE LANCET, Nov. 9th, 1895.

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Romano a lecture on the Problem of Physical Education, a theme on which, as writer of the treatise on "The Pathology of Fatigue," he had a special right to be heard. Premising that the development of the body was a classic tradition, revived by Italy at the Renaissance and carried to still further perfection by the Anglo-Saxon race, he criticised some of its abuses, particularly as practised in Germany. There gymnastics are too mechanical, not to say artificial, deficient in the freedom and the joy so characteristic of the Greek and Roman methods; performed, too, under cover, and often in vitiated air. Respiration, still more the violent respiration practised under these conditions, in an atmosphere charged with the effluvia, the heat, and the dust inseparable from confined and crowded areas, is in the last degree unwholesome and explains the frequency with which bronchial catarrh, even tuberculosis, is contracted by the young gymnasts. For this reason Professor Mosso cautioned his hearers against the adoption of the "Turn-verein" methods which in the present *furore* for everything German have actually been recommended for imitation in Italy. The British school and college sports are superior from every point of view, though these also may be pushed to excess. As counteracting the extravagant claims of "culture" and the "higher learning" at the present day physical education is asserting itself with increasing emphasis, and possible abuses of it must not be turned into a weapon for excluding it from the training of the young. "Over-pressure" in schools is a real and formidable danger, and of the two sexes it falls most heavily on the female, with corresponding injury to the coming generation. In Italy he found that far too little time is reserved for physical exercise in the "scuole femminili," and recommends the borrowing a leaf from the German system by which games hitherto reserved for boys are made part of girls' education under the eye of professionally trained superintendents. The Emperor William in 1890 was President of a Congress at which the development of the body at school was discussed in all its aspects; and since then, mainly on His Majesty's initiative, the benefits of physical exercise have been extended to the weaker sex. Italy, with her advantages of climate, must, in prudently adopting Teutonic methods, adhere strenuously to her "open-air traditions" and not be content with muscular exertion *per se* however scientifically practised. The development of the "masse muscolari del basso tronco" (the muscular masses of the lower part of the trunk) Professor Mosso insisted on as a growing necessity in female youth; above all, the exercises leading up to it should be conducted out-of-doors. He congratulated the audience on having in the Minister of Public Instruction an enlightened physician like Dr. Baccelli, whose wise regulations had introduced many salutary reforms into Italian schools, reforms already acting for good on both sexes, and obviating one of the characteristic evils of modern civilisation—premature evolution of the mental at the expense of the physical powers.

Professor Lombroso.

Dr. Cesare Lombroso, who has held so long and with such acceptance the chair of Legal Medicine in the University of Turin, besides directing the museum and laboratory in connexion with it, has, with his own consent, been transferred to the post of Ordinary Professor of Psychiatry, theoretical and applied, in the same school. He has also been made director of the University Clinique for Mental Diseases.

Feb. 1st.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of Congenital Dislocation of the Hip-joint.

PROFESSOR LORENZ has devised a new method of treating congenital dislocation of the hip-joint without any cutting operation, and he has employed it successfully in the case of twenty-five children of various ages ranging as high as six years. He first brings the head of the femur opposite the acetabulum by means of traction, then the reduction of the head into the acetabulum is effected by making a maximum of flexion and abduction. The leg being extended, the anterior wall of the acetabulum is stretched by means of hyper-extension of the leg and direct dilatation of it is obtained by pressing the head of the femur into the cavity. The manipulations are, of course, bloodless, and may be entirely performed by the unaided hand.

Influence of the Nervous System on Secretion in the Stomach.

At the last meeting of the Medical Society Dr. Schneyer described seventeen experiments made on dogs in order to investigate the effect of irritation on the process of secretion in the stomach. By irritating the vagus nerve in the neck he succeeded in obtaining gastric juice, and he infers from his experiments that the vagus contains secretory fibres supplying the stomach. Some writers, such as Bidder and Schmidt, suppose that a fluid containing both pepsin and hydrochloric acid is secreted by a specific energy of the stomach; but Hayem, on the other hand, believes that the mucous membrane of the stomach secretes only fixed chlorides, from which hydrochloric acid is formed solely by the stimulus of food. Dr. Schneyer stated that the gastric juice obtained from animals which had fasted for forty-eight hours contained both hydrochloric acid and chlorides and that it could digest albumin. Food causes an afflux of chlorides from the blood to the stomach, which takes from them the components of hydrochloric acid as they pass through the gastric glands. The contraction of the muscular layer is insufficient to produce secretion.

"Peasant Doctors."

A petition which the Provincial Council of Upper Austria has submitted to the Lower Austrian Government asking for the establishment of a medical school for cuppers has attracted much attention; indeed, it is surprising that the introducer of the petition, who is a lawyer and a graduate of Vienna University, intends to support it, and that no member of the medical profession has as yet protested against it. The petition states that the country-folk are not partial to modern physicians, and prefer "peasant doctors," meaning thereby the cuppers who practise venesection, employ scarification in order to "remove the unwholesome humour," prescribe herbal infusions, and are paid 2*d.* a visit. It is true that in Upper Austria and Tyrol there is a lack of medical men, but this fact is due to the scanty emoluments, for no physician will settle down in a country district where he is surrounded by rustic prejudices, and where, in spite of the fatigues he has to undergo in this mountainous province, his income hardly exceeds £50 a year. Instead of increasing the salaries the Council deliberately chooses the greater of the two evils. The revival of the old-fashioned rustic surgeon would be a strange phenomenon in these days of serotherapy. That far-famed type has already died out in Austria, and there are but a few cuppers (*Bäder*) in Hungary, who show with a certain pride their diplomas certifying that they have passed some months in a surgical clinic and are able to bleed, scarify, and extract teeth. No doubt the various medical boards will energetically protest against this petition.

Professorial Celebrations.

To-day Professor Mosetig, the well-known chief surgeon of the General Hospital, celebrates his twenty-fifth year as head of the surgical department. After twenty years at the Wieden Hospital he obtained his present position in 1890. He is one of the most eminent authorities on military surgery and introduced iodoform into surgical practice. On the same day Professor Benedikt attains his forty-fifth year of literary activity, and the international leaders of neuropathology have united to do him honour. France is represented by Dr. Brouardel and Dr. Vigouroux; Great Britain by Dr. Felix Semon, Dr. Dreschfeld, Dr. Reynold, and Dr. Cleland; Russia by Dr. Bogdanow, Dr Tschisch, and Dr. Heryng; Italy by Dr. Baccelli, Dr. Lombroso, and Dr. Mosso; Belgium by Dr. Lejeune and Dr. Morel; Holland by Dr. Hamme; Norway by Dr. Engelskjon; and Spain by Dr. Macedo. Professor Benedikt is a zealous admirer of British science, and is also well known to many members of the medical profession in Great Britain. In him the old saying is verified, *Nemo propheta in patria*, for the writer of the far-famed work on Human Psychology and of a great many anthropological treatises has not succeeded in obtaining an ordinary professorship.

The Reform of Medical Study.

The *Sanitätswesen* publishes further details on the proposed alterations in medical study which I have already described in THE LANCET of Jan. 25th. The committee proposes that the branches should be divided into two groups, the first comprising anatomy, practical anatomy, physiology, practical physiology, physics and chemistry (two half-years each), and histology (one half-year). Then the student is admitted to the so-called "first rigorosum," which includes anatomy, histology, physics, physiology, and

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chemistry. With the exception of physics the examinations in the above-mentioned branches are to be both oral and practical. When referred in one subject the student may be again admitted to examination after a lapse of two months; when he has failed in two he must wait a half-year. The second group it is proposed shall consist of experimental pathology, pharmacology, pathology, pathological histology, ophthalmology, diseases of children, public health, syphilis and forensic medicine (one half-year each), pathological anatomy and midwifery (two half-years each), and medicine and surgery (three half-years each).

Cholera in Galicia.

During last week 3 cases with 2 deaths have been reported from the district of Trembowla, making a total of 449 cases with 293 deaths since the commencement of the outbreak.

Feb. 2nd.

Medical News.

FOREIGN UNIVERSITY INTELLIGENCE.—*Leipzig:* Dr. Eigenbrodt, Principal Assistant to Professor Trendelenburg, has been appointed Extraordinary Professor of Surgery.—*Leyden:* Dr. W. Koster has been appointed Professor of Ophthalmology.—*New York (Policlinic):* Dr. George R. Fowler has been appointed Professor of Surgery. *Post-Graduate School:* Dr. Leonard Weber has been appointed Professor of Clinical Medicine.—*Tübingen:* Dr. Lenhossék has been appointed Extraordinary Professor of Anatomy.—*Warsaw:* Dr. V. Maximoff has been promoted to the Ordinary Professorship of Operative Surgery, and Dr. M. Valsilieff has been appointed Extraordinary Professor of Theoretical Surgery.

FOOTBALL CASUALTIES.—During a game at Sparkhill on Saturday last a player ruptured his kidney and was admitted to the General Hospital. On the same day, in the course of a match at Swansea, between the Swansea and Cardiff teams, a player fractured his clavicle; and at Rochdale, in a match between the Athletic and Spotland Clubs, three members of the former club received injuries. One sustained a fracture of his patella, another an injury to his arm, and the third a fracture of his skull. Unfortunately the latter became unconscious and died the following day.

PRESENTATIONS TO MEDICAL MEN.—On Jan. 23rd, at a public meeting held at the Treorchy Hotel, Rhondda Valley, Councillor T. D. Isaac presiding, Dr. Robert C. Joyce, formerly medical officer of the Abergorkey Collieries, was presented with an illuminated address and a valuable gold watch, and his wife with a gold bangle, in appreciation of his services to the miners during the nine years he had resided in the locality.—On Jan. 24th Dr. John Moysey Rattray was the recipient from the members of the St. John Ambulance classes in Frome of a clock and four volumes of medical works, in recognition of his services as instructor on first aid.—At a well attended and representative meeting, held at Swansea on Jan. 24th, Mr. Alderman Rawlings, M.R.C.S., presiding, Mr. Geo. Herbert Hopkins, L.R.C.P. Lond., M.R.C.S. (who is about to leave the town), was presented with a purse of gold, subscribed by fellow resident medical practitioners.—The members of the ambulance classes at Bourton-on-the-Water, as a mark of appreciation for his valuable services as their lecturer on First Aid, have presented Mr. Wood with a handsome marble dining-room clock, bearing the following inscription: "Presented to J. A. Wood, Esq., M.R.C.S., L.R.C.P., by the ambulance classes at Bourton-on-the-Water, in recognition of his valuable services as lecturer. December, 1895."—Mr. Frederick Morrell Friend, L.R.C.P. Edin., M.R.C.S. Eng., recently of Douglas, Isle of Man, has been the recipient of a handsome address and a dinner service of silver plate, subscribed by a large number of his former patients and friends in Douglas, where for seventeen years he was in practice, holding for nearly the whole of that period a responsible position on the medical staff of Noble's Isle of Man Hospital.—Mr. George Roy Fortune, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been presented by the members of St. Enoch Station Ambulance Class with seven volumes of standard medical works, together with a gold bracelet for Mrs. Fortune, in recognition and appreciation of his instruction on Ambulance Aid.

H.R.H. THE PRINCESS OF WALES has been graciously pleased to become patroness of the concert to be given by kind permission of the Duchess of Sutherland at Stafford House on Thursday, June 11th, in aid of the building fund of the Free Home for the Dying, Clapham. All communications should be addressed to the Ladies' Committee, at the office of the honorary secretary, Captain Portlock-Dadson, 281, Strand.

CAPE MOUNTED RIFLEMEN.—A misleading statement under the heading of "Increase of the Cape Forces" having appeared in several of Tuesday's newspapers, the Acting Agent-General for the Cape of Good Hope wishes it to be known that he has not received any instructions from his Government to that effect, and that it is impossible for him to reply to the very numerous applications from candidates for admission to the ranks of the Cape Mounted Riflemen which are now being received by him.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—The following gentlemen have been elected as office-bearers and committee for the year 1896:—President: Dr. S. Woodcock. Vice-Presidents: Dr. J. B. Brierley, Dr. T. Arthur Helme, Dr. C. G. L. Skinner, and Dr. A. Stewart. Treasurer: Dr. D. Lloyd Roberts. Secretaries: Dr. James Holmes and Mr. John Ferguson. Committee: Dr. E. Viponi Brown, Mr. J. Clegg, Dr. F. H. Collins, Mr. Richard J. Dearden, Mr. John Ferguson, Mr. Joseph Foster, Dr. Alfred Godson, Mr. Walter E. Husband, Dr. A. B. Ritchie, Dr. W. E. S. Scott, Dr. J. Watson, and Dr. A. T. Wilkinson.

DIPHTHERIA IN LONDON.—The two weeks ended on Saturday last have shown somewhat different numbers of deaths from diphtheria, the total in each of the weeks having nevertheless exceeded the decennial average for the particular week of the years 1886-95. In the week ended Jan. 25th the deaths registered were 51 in number, against 66, 48, and 59 in the three weeks immediately preceding, being 19 above the corrected average. The sanitary areas chiefly concerned were Lambeth, Camberwell, Greenwich, and Fulham, with 4 deaths credited to each; and St. Pancras, Hackney, Mile End Old Town, and Newington, with 3 deaths each. All the deaths save 1 were in persons under twenty years of age. The admissions in the week were 122, so far as hospitals of the Metropolitan Asylums Board were concerned, against 98, 96, and 99 in earlier weeks; and 667 patients remained under treatment at the close of the week. In the succeeding week ended Feb. 1st the registered deaths rose again to 61, exceeding the corrected average by 25. Of the deaths 8 were credited to Greenwich, Camberwell had 6, Chelsea had 5, and Plumstead 4. As in the preceding week, all but one of the deaths were in persons aged under twenty years. The admissions to hospital in the week were 102, and 687 cases were left under treatment last Saturday. In the outer ring 19 deaths occurred in the fortnight, and 11 of them belonged to West Ham district.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—At the annual meeting of this society, held on Jan. 17th, at Owens College, Manchester, the following gentlemen were elected office bearers for 1896:—President: Dr. William Walter, Manchester. Vice-Presidents: Dr. D. Lloyd Roberts, Manchester; Dr. Archibald Donald, Manchester; Mr. Henry Briggs, Liverpool; Dr. Glynn Whittle, Liverpool; Dr. T. Kilner Clarke, Huddersfield; Mr. Edmund Robinson, Leeds; Mr. Richard Favell, Sheffield; Dr. A. H. Laver, Sheffield; Sir Robert M. Craven, Hull. Honorary Treasurer: Mr. J. Nelson Cregeen, Liverpool. Council: Dr. E. Annacker, Manchester; Mr. F. A. E. Barnardo, Southport; Dr. S. Buckley, Manchester; Dr. J. M. Chisholm, Woolton; Dr. E. T. Davies, Liverpool; Dr. John Elliott, Chester; Mr. W. Fingland, Liverpool; Mr. E. P. Hardey, Hull; Dr. T. Arthur Helme, Manchester; Dr. John Hodgson, Oldham; Dr. D. U. Maclennan, Widnes; Dr. John W. Martin, Sheffield; Mr. H. W. Pigeon, Hull; Dr. G. J. Robertson, Oldham; Mr. S. Rumboll, Leeds; Dr. Benjamin Scott, Manchester; Dr. W. J. Sinclair, Manchester; Mr. W. A. Stott, Leeds; Mr. G. W. Thomson, Sheffield; Dr. John Wallace, Liverpool; Mr. G. Westby, Liverpool; Mr. A. T. Winterbottom, Swinton; Dr. H. White, Bradford; Mr. C. J. Wright, Leeds. Honorary General Secretary: Dr. T. B. Grimsdale, Liverpool. Honorary Local Secretaries: Dr. John Scott, Manchester; Dr. J. E. Gemmell, Liverpool; Mr. Edward B. Croft, Leeds; Dr. David Lowson, Hull; Dr. Hugh Rhodes, Sheffield.

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NOTICE OF REMOVAL.—The lease of their premises at New Burlington-street being about to expire, on and after Feb. 8th the address of Messrs. J. and A. Churchill, the publishers, will be No. 7, Great Marlborough-street.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. Prengrueber, formerly editor of the *Bulletin Médical* of Paris.—Dr. Schirmer, Professor of Ophthalmology in the University of Greifswald, at the age of sixty-five. For the last two years he had given up the charge of the clinic to his son, who is Extraordinary Professor.

HOSPITAL WORK SOCIETY. — Poor hospital patients owe much to this society, which held its annual meeting last week. There are as members from 600 to 800 ladies, every one of whom makes two garments a year for the use of these patients. Mr. Edward Heywood, chairman of the infirmary board, spoke as representing three large institutions, all of which had benefited by the gifts of the society, and suggested "that a good way of helping the society, and of doing good in another way at the same time, would be for those who wished to assist to give the sewing work to some poor woman, and then send the completed garment to the secretary." In a modest fashion this society does most useful work.

FORMATION OF A MEDICAL SOCIETY AT BURY, LANCASHIRE.—A meeting of the medical men residing in Bury and district was held in the board-room of the dispensary on Nov. 12th last. It was determined to form a society under the title of "The Bury and District Medical Society." At the first annual meeting, held on Dec. 10th, the following officers were elected:—President: A. Fletcher, M.D. Vice-Presidents: W. Nuttall, M.R.C.S., and H. Wisken, L.R.C.P. Committee: R. Mitchell, M.D., J. Holmes, M.D., T. Mellor, M.R.C.S., and W. R. Nicholson, M.R.C.S. Secretary and Treasurer: J. Bamford Kerr, M.B. Auditors: J. Johnson, L.R.C.P., and W. J. Baird, L.R.C.P. The inaugural address was delivered on Jan. 14th by Walter Whitehead, F.R.C.S. Ed., F.R.S. Ed. The necessity for medical confederation was strongly put before the members, and our want of union contrasted with the manner in which solicitors united and protected themselves. Mr. Whitehead proceeded to give an autobiographical sketch interspersed with humorous anecdote, a very pleasant evening being spent.

DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—An ordinary meeting of this society was held at 20, Hanover-square, on Jan. 22nd, Dr. P. H. Pye-Smith, F.R.S., the President, being in the chair. Mr. F. A. N. Bateman and Mr. G. Phillips were elected members. The following cases were exhibited: The President, Mycosis Fungoides; Dr. D. Walsh, Alopecia Areata (two cases), Seborrhœic Dermatitis; Dr. T. D. Savill, Fugitive Erythema (two cases); Dr. P. S. Abraham, Keratosis Pilaris; and Dr. Stowers, Congenital Ichthyosis, Eczema Verrucosum, Dermato-syphilis (two cases), and Microscopic Sections of an Epitheliomatous Tumour. Mr. G. Pernet read some additional notes on the Etiology of Acute Pemphigus, having reference to a paper read before the British Medical Association in 1895. The President, Dr. S. Wilks, Dr. A. Eddowes, Dr. P. S. Abraham, Dr. R. L. Bowles, Dr. T. D. Savill, Dr. Stowers, and Dr. E. Mackey (Brighton) took part in the various discussions. It was announced that the next meeting would be held on March 25th.

THE TREATMENT OF ANIMALS: SLAUGHTER AND INSPECTION.—A meeting was held on Monday in the Mayor's parlour, Leeds, under the auspices of the Church Society for the Promotion of Kindness to Animals and the Church Sanitary Association. Sir F. G. Milner, Bart., M.P., in presiding, said that farmers, by combining to slaughter their own animals, could dispense with the middleman, the animals would be better treated, and the public would have much better security for the wholesomeness of the meat bought. It was unanimously resolved that there was scope for much improvement in the laws and customs of this country in respect of the conveyance and slaughter of animals and the preparation of their flesh for food. Approval was given to the memorial to be presented by the Church Society for the Promotion of Kindness to Animals and the Church Sanitary Association to the President of the Board of Agriculture, asking for further legislation respecting slaughter-houses and for an inquiry as to how the sanitary condition of places where animals are reared can be improved, how public slaughter-houses can be established near railway stations, what is the best and least painful mode of slaughter, and what is the most efficient mode of inspection of the animal and of the meat.

AT a meeting of medical men held at 20, Hanover-square, in the rooms of the Royal Medical and Chirurgical Society, yesterday (Thursday) afternoon a resolution was passed condemning the action of the School Board of London in appointing persons to supervise medical certificates; and a sub-committee was formed consisting of Mr. Malcolm Morris, Mr. Raymond Johnson, Dr. Guthrie, Mr. Marmaduke Sheild, Dr. Walter Smith, Mr. Cowell, Dr. Bridgewater, Dr. H. P. Cholmeley, and Dr. Glover (chairman), to consider a line of action.

BOOKS, ETC., RECEIVED.

ALCAN, FÉLIX, Paris.
Œuvres de Léon le Fort. Par Dr. Félix Lejars. Tome deuxième. Chirurgie Militaire—Enseignement. 1896. p.p. 983.

BAILLIÈRE, J. B. ET FILS, Paris.
Traité de Médecine et de Thérapeutique. Von P. Brouardel, A. Gilbert et J. Girode. Tome Deuxième. 1896.
Formulaire des Médications Nouvelles. Par Dr. H. Gillet. 1896. pp. 252.

CASSELL AND CO., London.
The Practitioner: A Journal of Practical Medicine. Edited by Malcolm Morris. Jan. and June, and July to Dec., 1895.

CHALLAMEL, AUGUSTIN, Rue Jacob, Paris.
Guide Pratique d'Hygiene et de Médecine Coloniale. Par Dr. Sadoul. 1895. pp. 202.

CHATTO AND WINDUS, Piccadilly, London.
Herbert Fry's Royal Guide to the London Charities. Edited by John Lane. Thirty-second annual edition, 1895. Price 1s. 6d.

DORNAN, Philadelphia.
Transactions of the Association of American Physicians. Tenth Session. Held at Washington, D.C., May 30th and 31st, 1895. Vol. X. 1895. pp. 406.

FALKNER, GEO. AND SONS, Queen Victoria-street, London, E.C.
Economical Houses. By Henry Goldsmith, Architect, Manchester. 1895.

FISCHER, GUSTAV, JENA.
Handbuch der Speciellen Therapie inner Krankheiten. Von Dr. F. Penzoldt und Dr. R. Stentzing. 23, 24, 25. Lieferung. 1896.

KEGAN PAUL, TRENCH, AND CO., Charing-cross-road, London.
The Art of Compounding. By W. L. Scoville, Ph.G., Massachusetts. 1895. pp. 284. Price 12s.
Ice-work; Present and Past. By T. G. Bonney, D.Sc., LL.D., F.R.S. 1896. pp. 296. Price 5s.

KELLY AND CO., High Holborn, London, W.C.
Kelly's London Medical Directory. 1896. Price 6s. 6d.

LIPPINCOTT, J. B. COMPANY, Philadelphia.
Therapeutics of Infancy and Childhood. By A. Jacobi, M.D. 1896. pp. 518.

MACLEHOSE AND SONS, Glasgow.
Deaf Mutism. A Clinical and Pathological Study. By J. K. Love, M.D., and W. H. Addison, A.C.P. 1896. pp. 369.

PENTLAND, YOUNG J., Edinburgh and London.
Atlas of the Diseases of the Skin. By H. R. Crocker, M.D., F.R.C.P. Fasciculus 14. Price 21s. net.

RENSHAW, HENRY, 356, Strand, London.
A Dictionary of Treatment or Therapeutic Index, including Medical and Surgical Therapeutics. By Wm. Whitla, M.D. Third Edition. 1896. pp. 1000. Price 16s.

SPON, E. and F. N., 125, Strand, London, W.C.
Practical Studies in Fermentation. By Emil C. Hansen, Ph.D. Translated by A. K. Miller, Ph.D. 1896. pp. 277.

SWAN SONNENSCHEIN AND CO., Paternoster-square, London.
Premature Burial. By Franz Hartmann, M.D. Second Edition. 1896. Price 1s.

THE SCIENTIFIC PRESS, 428, Strand, London, W.C.
Cottage Hospitals—General, Fever, and Convalescent. By. H. C. Burdett. Third Edition. 1896. pp. 379. Price 10s. 6d.

THE REBMAN PUBLISHING COMPANY, Adam-street, Strand, London.
An American Text-Book of Surgery. Edited by Wm. W. Keen, M.D., LL.D., and J. Willm. White, M.D. Ph. D. Second Edition. 1895. pp. 1248.
The American Year Book of Medicine and Surgery. Edited by Geo. M. Gould, M.D. Illustrated. 1896. pp. 1183. Price 38s.

WRIGHT, JOHN AND CO., Bristol.
A Pharmacopœia for Diseases of the Skin. Edited by Jas. Startin. Fourth Edition. 1896. pp. 53.

Temperance or Total Abstinence? By Fred. Baker, A.C.P., Ely School, Cardiff; Fourth Edition (W. G. Moore and Co., High-street, Birmingham); price 1d.—Studies from the Department of Pathology of

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the College of Physicians and Surgeons, Columbia College, N.Y.; Vol. IV., for the Collegiate Year 1894-95; reprints.—Mitteilungen aus den Grenzgebieten der Medizin und Chirurgie. Erster Band. Erstes Heft (Gustav Fischer, Jena. 1895).—Magazines, &c., for February: Windsor Magazine, Contemporary Review, Chapman's Magazine, Ludgate Illustrated Magazine, Boy's Own Paper, Girl's Own Paper, Leisure Hour, Westminster Review, Sunday at Home, Friendly Greetings, Strand Musical Magazine, Strand Magazine, Pall Mall Magazine, Architecture, and The Hotel World.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALDRICH-BLAKE, Miss, M.S., M.D. Lond., has been appointed Surgical Registrar to the Royal Free Hospital.

ALLEN, W. T. D., M.B., B.Ch., B.A.O. Irel., has been appointed Assistant Medical Officer to the Parish Infirmary, Brownlow Hill, Liverpool.

ATKIN, CHARLES, F.R.C.S. Eng., has been appointed Surgeon to the Sheffield General Infirmary.

BACK, H. H., M.B. Lond., M.R.C.S., has been appointed Medical Officer of Health by the Aylsham District Council.

BLACKFORD, J., L.S.A., has been appointed Medical Officer for the Cradley Sanitary District of the Stourbridge Union.

BRIMACOMBE, R. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Oldland Sanitary District of the Keynsham Union.

BRODIE, C. GORDON, F.R.C.S. Eng., has been appointed Assistant Surgeon to the City Orthopædic Hospital.

BUTLER, S., L.F.P.S., L.M. Glasg., has been reappointed Medical Officer of Health for the Stafford Rural Sanitary District.

COOKE, WM. CONWAY, L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer of Health by the Bognor Urban Council.

COLVILLE, JAMES, B.A., M.D. R.U.I., has been appointed Anæsthetist to the Ulster Hospital for Children and Women, Belfast.

DIXON, F. J., M.A., M.B., B.C. Camb., has been appointed Assistant Registrar to the Central London Throat and Ear Hospital.

EVANS, WILLMOTT H., M.D. Lond., F.R.C.S. Eng., has been appointed Assistant Surgeon, with charge of Skin Department, to the Royal Free Hospital.

FARRAR, CHAS., M.D. Heidelb., L.F.P.S., L.M. Glas., has been appointed Medical Officer of Health by the Chatteris District Council.

FLEMING, Mrs., M.D. Lond., has been appointed Medical Registrar to the Royal Free Hospital.

FORBES, THOMAS DEWAR, M.B., Ch. Edin., has been appointed Assistant House Surgeon to the Royal Albert Hospital and Eye Infirmary, Devonport, vice H. J. Cardale, resigned.

GARSTANG, F. W. H., M.A. Oxon., M.R.C.S., has been appointed Medical Officer of Health for the Biddulph Urban Sanitary District.

HAMILTON, JAS., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Dartford Urban Sanitary District.

HANBURY, W. R., L.R.C.P., M.R.C.S., has been appointed Second Assistant Medical Officer to the County Asylum, Dorchester, vice C. P. Felvus.

HARDMAN, F. H., M.B., C.M. Edin., has been appointed Medical Officer for the Knighton Sanitary District of the Knighton Union.

HARDYMAN, GEORGE, M.B. C.M. Edin., has been appointed Honorary Surgeon to the Royal Mineral Water Hospital, Bath, vice Mr. Hugh Lane, deceased.

HARPER, JOSEPH, L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health by the Padstow Urban Council.

HARRISON, EDMUND, M.B., Ch.B. Vict., has been appointed Medical Officer to the Birmingham General Dispensary.

HAWORTH, J. T., L.R.C.P., L.R.C.S., L.M. Edin., L.F.P.S. Glas., has been appointed Medical Officer of Health for the Filey Urban Sanitary District.

HEATH, CHARLES J., F.R.C.S., has been appointed Assistant Registrar to the Central London Throat and Ear Hospital.

HOLT, H. M., M.R.C.S., D.P.H. Edin., has been reappointed Medical Officer of Health by the Malton Urban District Council.

HOOLE, H., M.D. Lond., has been appointed Medical Officer to the Royal Insurance Company, vice W. Bezly Thorne, resigned.

JACK, R. P., M.B., M.S. Edin., D.P.H. Glasg., has been appointed Medical Officer of Health by the Dalziel Parish Council.

MACLENNON, D. U., M.D., C.M. Edin., has been reappointed Medical Officer of Health by the Widnes Town Council.

MOORE, THOS., M.R.C.S., L.M., has been appointed Medical Officer of Health for the Stockport Rural Sanitary District.

MORTON, A. C., M.R.C.S., has been reappointed Medical Officer of Health by the Smallburgh Urban District Council.

NEWBY, THOS., M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health for the Borough of Grimsby.

NOURSE, W. J. C., F.R.C.S. Edin., has been appointed Assistant Registrar to the Central London Throat and Ear Hospital.

REID, ST. GEORGE C., M.R.C.S., has been appointed to take charge of the Bacteriological Department of the Central London Throat, Nose, and Ear Hospital, Gray's-inn-road.

RICHARDSON, T. W., M.R.C.S., has been appointed Medical Officer for the Erpingham Rural Sanitary District.

RODERICK, S. J., M.B., C.M. Edin., has been reappointed Medical Officer of Health by the Llanelly Urban Council.

SAUNDERS, WM. S., M.D. Castleton, U.S., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health and Public Analyst for the City of London.

SHARPIN, WALTER A., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer to the Royal Hants County Hospital, Winchester, vice A. B. Harman, resigned.

SINCLAIR, WALTER W., M.B. Aberd., has been appointed Honorary Ophthalmic Surgeon to the East Suffolk and Ipswich Hospital.

THOMAS, J. T., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health by the Camborne District Council.

TIBBETTS, T. M., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Officer of Health for he Quarry Bank Urban Sanitary District.

YUILL, JOHN L., M.B., C.M. Glasg., F.R.C.S. Edin., has been appointed Medical Officer to the Birmingham General Dispensary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, London, S.W.—House Surgeon. Board, lodging, fuel, and light provided.

BRISTOL GENERAL HOSPITAL.—Surgeon.

CARDIFF UNION.—Assistant Medical Officer for the Workhouse, for one year. Salary £100 per annum, with rations, apartments, attendance, and washing. Applications to the Clerk, Queen's Chambers, Cardiff.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House Surgeon, for one year. Salary £40 per annum, with board, lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Physician. Board, lodging, &c., provided.

GENERAL INFIRMARY AND DISPENSARY, Doncaster.—Indoor Dispenser and Assistant to House Surgeon. Board, lodging and washing provided.

HOXTON HOUSE ASYLUM, London, N.—Clinical Assistant. Board and lodging provided, and an income of £40 a year.

LIVERPOOL ROYAL INFIRMARY.—Assistant Honorary Physician.

LONDON HOSPITAL, Whitechapel, E.—Two Surgeon Dentists.

OWENS COLLEGE, Manchester.—Junior Demonstrator in Physiology and Histology. Salary £100 per annum.

ROYAL FREE HOSPITAL, Gray's-inn-road, London, W.C.—Resident Medical Officer (House Physician) for six months. Board, residence, and washing provided.

SALFORD ROYAL HOSPITAL.—House Surgeon. Salary £100 per annum, with board and residence.

STAINES UNION.—Medical Officer for No. 8 Medical District. Salary £20 per annum with the usual fees for surgical and midwifery cases. Applications to the Clerk to the Guardians, Staines.

ST. MARK'S HOSPITAL, City-road, E.C.—Assistant Surgeon.

ST. PETER'S HOSPITAL, Henrietta-street, Covent-garden, London, W.C.—House Surgeon for six months. Salary at the rate of £100 a year, with board, lodging, and washing.

WESTERN GENERAL DISPENSARY, Marylebone-road, London.—Two House Surgeons, unmarried. Salary £70, or £50 with board and residence.

WESTMINSTER HOSPITAL, Broad-sanctuary, S.W.—Surgeon.

Births, Marriages, and Deaths.

BIRTHS.

BLAIR.—On Jan. 30th, at Fulwood, Kew Gardens, the wife of Charles Blair, M.D., M.R.C.S., of a daughter.

NEALE.—On Jan. 28th, at Old Bank House, Milford Haven, the wife of Albert E. Neale, M.B., B.S. Durh., of a son.

ROBERTSON.—On Feb. 4th, at Christchurch-road, Tulse-hill, S.W., the wife of John Robertson, M.A., M.D., of a daughter.

STUART.—On Jan. 31st, at New Rivet, Durham, the wife of Robert Stuart, M.R.C.S., L.R.C.P. Lond., of a son.

MARRIAGES.

EVERETT—GOODMAN.—On the Jan. 29th, at Highbury-hill Chapel, Ernest William Everett, M.R.C.S., L.R.C.P., of Norwich, to Fanny Mabel, daughter of the Rev. W. Goodman, B.A., of Leigh-road, Highbury.

FISHER—MEDLAND.—On Feb. 4th, at St. Peter's, West Leigh, Devon, by the Rev. N. Germon, M.A., vicar, brother-in-law of the bride, William Fellowes Fisher, M.B., son of the late John Fisher of Dudley, to Mary Edith, third daughter of the late Rev. William Medland, M.A.

LISTON—COOPER.—On Feb. 1st, at the St. Marylebone Parish Church, Walter Lawrence Liston, Esq., M.D., of Tewkesbury, to Kathleen Nora Cooper.

MINNS—MORTON.—On Jan. 29th, at All Saints Church, Sheffield, Allan Glawyer Minns, L.R.C.P. Lond., Thetford, to Gertrude, eldest daughter of Samuel Morton, M.R.C.S., of Burngreave-road, Sheffield.

QUAIT—MUSGRAVE.—On Jan. 30th, in London, Alexander Wortley Quait, M.R.C.S., L.R.C.P. Lond., to Lilian, daughter of the late George Musgrave, Esq., of Cumberland.

DEATHS.

COGHILL.—On Jan. 1st, killed in action at Krügersdorp, Kenneth Mackay Sinclair, aged 19, third surviving son of Dr. and Mrs. Sinclair Coghill, St. Catherine's House, Ventnor, I.W.

HEALE.—On Dec. 19th last, at Gisborne, New Zealand, suddenly, Alfred Lawson Heale, M.D. Brux., M.R.C.S., L.R.C.P. Lond., late of Warwick, in his 44th year.

HEWBY.—On Feb. 1st, at Cambridge-gardens, W., John Petch Hewby, B.A. Oxon, M.R.C.S., aged 61.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (10th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (11th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1 30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2 30 P.M.), Cancer (2 P.M.).

WEDNESDAY (12th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (13th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (14th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY (15th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (10th).—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Cases:—Mr. Johnson Smith: Dislocation of Hip into the Obturator Foramen treated by Excision of the Head of the Bone.—Mr. G. R. Turner: Unreduced Dislocation of Hip into the Obturator Foramen.—Mr. H. Cotterell: (1) Exostosis of the Orbit; (2) Laminectomy for Paralysis due to Cervical Caries.—Dr. Guthrie: A Case for Diagnosis.—Mr. D. H. Goodsall: Two Cases of Sinus over the Sacrum and Coccyx.—Mr. T. Macready: Cancer of the Upper Rectum, Colotomy, and subsequent Enterectomy.—Dr. T. Outterson Wood: Two Cases (sisters) of Congenital Nystagmus.—Mr. Noble Smith: Pott's Fracture treated by Early Movement and Massage.—Mr. Waterhouse: Restoration of the greater portion of the Os Calcis, in which chips of decalcified bone were used to fill up the gap left by the removal of the caries portion of the Bone.

TUESDAY (11th).—ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-square, W.).—8.30 P.M. Discussion on the Parasite of Malaria, to be introduced by a Paper on The Parasite of Malaria, with special reference to the malarial fevers of the South of Spain, by Dr. Robert J. Marshall and Dr. George Thin.

WEDNESDAY (12th).—LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—5 P.M. Discussion on The Nature of Laryngeal Ulcerations during the course of Typhoid Fever, to be introduced by Drs. A. A. Kanthack and J. A. Drysdale.—Discussion on Foreign Bodies in the Upper Air and Food Passages, to be introduced by Mr. Charters Symonds.

THE SANITARY INSTITUTE (Parkes Museum, Margaret-st., W.).—8 P.M. Dr. S. Monckton Copeman will open a discussion on The Influence of Subsoil water on Health.

THURSDAY (13th).—BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square, W.).—Specimens by Mr. Bowreman Jessett, Dr. Alfred Smith and Dr. R. T. Smith.—Dr. Elder: Notes on a Supra-vaginal Hysterectomy during Pregnancy, performed because of threatened intestinal obstruction (with Specimen).—Dr. George Keith: The Permanent Cure of Antiflexion by Operation.—Dr. H. F. Eliot: Notes on Gynæcological Cases from a Provincial Hospital.

SOCIETY OF ARTS.—4.30 P.M. Sir James Broadwood Lyall: Punjab Irrigation, Ancient and Modern.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Great Northern Central Hospital, Holloway).—9 P.M. Dr. A. Morison: Cardiac Dyspnœa. Drs. Harry Campbell, Burnet, Christie, Ostlere, Alex. Reid and others are expected to take part in the discussion on this paper.

FRIDAY (14th).—CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. T. W. Nunn: A Case of Chronic Cancer.—Mr. Pitts and Mr. Ballance: On Splenectomy for Rupture, with three successful cases.—Dr. Hale White: Two cases of Pneumothorax in the course of Typhoid Fever, and both due to straining at stool.—Mr. Golding-Bird: A case of Lymph Scrotum and Lymphatic Varix.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (10th).—LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 1 P.M., Mr. W. Lang: Lacrymal Affections.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Dr. E. Law: Examination of the Throat and Nose.

TUESDAY (11th).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Melancholia and Hypochondriasis.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

WEDNESDAY (12th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Gowers.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Schorstein: Prognosis and Treatment of Mitral Disease.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Abraham: Skin Affections.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Parasitic Diseases (Vegetable).

LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. Q. Silcock: Glaucoma. Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: The Treatment of Eczema.

HUNTERIAN SOCIETY.—8.30 P.M. Dr. G. Newton Pitt: John Hunter, and some of his Contemporaries (Hunterian Oration).

THURSDAY (13th).—ROYAL INSTITUTION.—3 P.M. Prof. H. Marshall Ward: On some Aspects of Modern Botany.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., 5.30 P.M., Dr. P. Manson: Liver Abscess.—Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M. Dr. Allan Macfadyen and Mr. A. G. Foulerton: Proteid Substances found in Urine in Disease.

FRIDAY (14th).—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M. Prof. Crookshank: Examination of Air, Soil, and Water.

ROYAL INSTITUTION.—9 P.M. Mr. J. J. Armistead: Fish Culture.

SATURDAY (15th).—ROYAL INSTITUTION.—3 P.M. Prof. C. Hubert H. Parry: Realism and Idealism in Musical Art (with Musical Illustrations).

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Diseases of the Hair.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 6th, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Jan. 31	30·81	N.W.	41	39	50	45	35	...	Foggy
Feb. 1	30·62	N.	40	38	42	40	40	...	Overcast
,, 2	30 51	N.E.	38	36	48	41	36	...	Foggy
,, 3	30 70	E.	34	33	57	43	32	...	Foggy
,, 4	30·60	S.W.	40	38	53	43	34	...	Foggy
,, 5	30·54	S.W.	40	39	54	50	36	...	Foggy
,, 6	30 56	S.W.	44	43	46	44	39	...	Cloudy

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s.*

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*; by post, 2*s.* 3*d.*

To be obtained on application to the Manager, accompanied by remittance.

"THE CASE OF MRS. GUTHRIE."

To the Editors of THE LANCET.

SIRS,—Kindly allow me to state that, as the result of my appeal in THE LANCET of Dec. 28th, 1895, on behalf of Mrs. Guthrie, I have received the following sums:—Prof. W. D. Halliburton, F.R.S., £1 1*s.*; Anon., from Devonport, 10*s.*; Dr. Winfred Benthall, Derby, £2 2*s.*; Dr. C. J. Woollett, F.R.C.S.Eng., £2 2*s.*—Total, £5 15*s.* Of this sum Mrs. Guthrie has had £3.

I am, Sirs, faithfully yours,

134, Harley-street, W., Feb. 2nd, 1896. STANLEY BOYD.

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"AN ANGLO-FRENCH DICTIONARY OF SCIENTIFIC TERMS."

IN reply to two recent queries (THE LANCET of Dec. 14th, 1895, and Feb. 1st, 1896) we may remark that a useful French, English, and German Technological Dictionary is published in Wiesbaden, and has passed through several editions, the most recent editor being Röhrig. It is in three quarto volumes, one for each language; they can be bought separately; the one with the English words in alphabetical order costs about 12s. 6d., and the corresponding French one about 15s. The predominating words belong to the industrial arts, the mechanical and engineering trades. There are some chemical and mineralogical terms, but no medical words. It may be obtained from Messrs. Kegan Paul and Co., Charing-cross-road.

X. Y. Z. is, under the present regulations, not a qualified surgeon. The acts he mentions do not constitute illegality, but are indiscreet.

J. H. T. is thanked for his communication. We fear nothing we could say will alter the system under which these persons gain their notoriety.

Mr. Thos. Gascoigne desires information as to the address of a home for epileptic children, either in London or the provinces, where they are taken on easy terms.

H. J. M.—We agree with our correspondent that the newspaper account was far from intelligible.

Mr. Charles Heneage.—We should like to see Professor Schlangerhausen's completed paper.

Mrs. Elizabeth Hamilton.—We regret that we can be of no assistance.

Mr. C. M. Fegen is thanked for his letter.

GOLF ARM.

To the Editors of THE LANCET.

SIRS,—After playing double my usual rounds at golf on Dec. 31st I awoke next morning with great pain in my arm and shoulder. This gradually improved but still persists, and seems entirely confined to the musculo-spiral nerve. There are painful points where the nerve pierces the external intermusculo septum and the fasciæ about the elbow, and numbness with tingling in the dorsum of the thumb and first finger (not of second). Having met with another case which has persisted for ten months, and finding that it entirely spoils one's enjoyment of golf, it has seemed worth while bringing the subject to your notice. It appears to be due to repeated sudden and whip-like contractions of the triceps bruising the musculo-spiral nerve, and I think it arises when the muscle is defective in tone and consequently the change from rest to contraction is more marked. Very graduated exercise and fresh air, with gentle friction of the arm, relieve the condition most permanently.

I am, Sirs, yours truly,

Wolverhampton, Feb. 3rd. FRKD. EDGE, F.R.C.S. Eng.

*** We are not aware that this precise trouble has been experienced by golf players to any extent. No similar case has been reported to us.—ED. L.

H. A. B.—If our correspondent sends details of this case to Scotland Yard, with an application for special remuneration, we are certain that his request will receive consideration, and believe that it will be favourably replied to.

Inquirer.—The answer must depend upon what amount of information A had previously obtained confidently from C. We presume that in is not suggested that A investigated C's affairs with the *intention* of finding out about them and then joining B. But he *must not* use any information acquired in confidence. Therefore he would be wise to abstain from joining B.

PROFESSIONAL ETIQUETTE.

To the Editors of THE LANCET.

SIRS,—While attending a lady in the private hotel where I am staying "her old doctor" came to make "a friendly visit." He was told I was attending the lady and my treatment explained to him. He is now paying regular "friendly visits," and prescribing for the patient without a word of explanation to me or request to see me, although he knows I am in the same house. I have shown my opinion of the patient's discourtesy and the "old doctor's" ignorance, or worse, by discontinuing my attendance, so that neither can have any doubt as to my opinion of their manners.

I am, Sirs, yours truly,

W. H.

*** We cannot express an opinion very authoritatively on a case where we only hear one side. It cannot be too clearly understood that a patient has the right to change his medical attendant whenever he chooses.—ED. L.

Dr. D. M. King.—We propose to look into the matter and discuss it in an early issue.

Lieutenant-Colonel.—We will ascertain the previous record of the writer of the circular. On the face of it, it would seem to be a dangerous and insidious offer.

A BILINGUAL LUNACY REPORT.

THE thirty-first annual report of the medical superintendent of the Joint Counties' Asylum, Carmarthen, which has just been issued, apart from its merits as a report, is an honest testimonial to the praiseworthy industry of its compiler. It is little more than a year since Dr. Edwin Goodhall succeeded his predecessor, and during this period he has sufficiently mastered the language of Cymraeg—the harmonious combination of letters signifying the Saxon word Welsh—as to be able to present his report in that language as well as in English. The exigencies of commerce are gradually causing the Welsh language to give place to English, but it is still exclusively spoken by about a quarter of a million of the inhabitants of the Principality.

NOTIFICATION DIFFICULTIES.

G. T.—*a.* If the writer will refer to the first article which we published on Jan. 19th, 1895, on "Difficulties under the Infectious Disease (Notification) Act," he will find a complete answer to this question. *b.* The patient can only be legally compelled to submit to removal to an isolation hospital under a magistrate's order; and this order can only be given provided (1) the patient is shown to be without proper lodging and accommodation; (2) the patient is in a room occupied by members of more than one family; or (3) the patient is on board a ship. See Sec. 124 of the Public Health Act, 1875.

M.B., M.R.C.S., &c.—The policeman's statement to the father of the burnt child that the medical man who was first called would have to give evidence is not a pronouncement of law, of course, but it lays down the rule that is generally followed. In most cases which result in an inquest the earliest medical man on the spot is in a position to give the most useful evidence. In our correspondent's case it is clear that he was likely to know certain things about the case that would be unknown to the first medical man summoned.

Rus.—1. The difficulty of obtaining posts in the Public Health Service is often made obvious to us. 2. The manuals mentioned could be supplemented by Farr's well-known book "Vital Statistics." We should have thought this unnecessary. 3. The purchase of the standard solutions in smaller quantities would make no difference in the accuracy of investigations conducted with a balance of the delicacy described. 4. A course of practical bacteriology would be necessary. We recommend our correspondent to apply to the Secretary of the London Post-Graduate Course (Dr. J. Fletcher Little 32, Harley-street, W.) for further information.

Mrs. Page.—The letter referred to contained only a purely theoretical suggestion.

"REMUNERATION FOR AMBULANCE LECTURES."

To the Editors of THE LANCET.

SIRS,—I can inform your correspondent that many county councils are now making grants for lectures on ambulance work—notably, in Essex, where the lecturer is paid the proper fee of £1 1s. for each lecture. I should advise your correspondent not to give any lectures under the regulation fee of £5 5s. for the course. In this matter, as in any other, local committees will try to beat down the medical men and often succeed; but it is time that a stand were made against the practice.

am, Sirs, yours truly,

Feb. 2nd. THE EDITOR OF "FIRST AID."

Mr. J. Champion Bradshaw.—Yes.

Mr. Charles W. Price.—The matter being *sub judice* it would not be proper to publish our correspondent's communication.

During the weeks marked copies of the following newspapers have been received:—*Elgin Courant, Worcester Herald, Fife Free Press, Bradford Observer, Batley Reporter, Galloway Gazette, Croydon Guardian, Hull Daily News, Perthshire Advertiser, Wolverhampton Chronicle, Sussex Daily News, Glasgow Herald, Hastings and St. Leonards News, Levant Herald, Scotsman, Sheffield Telegraph, Chatham News, Liverpool Daily Post, Egyptian Gazette, Le Petit National (Paris), Essex County Chronicle, Leeds Mercury, Preston Herald, Newcastle Leader, Times of India, Birmingham Mail, Liverpool Courier, Lincolnshire Times, Pioneer Mail, Yorkshire Post, Herts Advertiser, Leicester Daily News, Todmorden Advertiser, Western Morning News, Daily Messenger, Cambridge Express, Brighton Gazette, Evening Telegraph (Dundee), Le Temps (Paris), Sanitary Record, Shrewsbury Chronicle, Hertfordshire Mercury, City Press, Reading Mercury, Mining Journal, Gloucestershire Chronicle, Chard and Ilminster News, West Middlesex Standard, Midland Free Press, Weekly Free Press and Aberdeen Herald, Local Government Chronicle, Paddington Mercury, Surrey Advertiser, Local Government Journal, Public Health, Guy's Hospital Gazette, General Advertiser (Dublin), Dumfries Standard, Mexican Herald, West Sussex Times, Court Circular, East London Observer, Standard, Bristol Mercury, &c., &c.*

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Communications, Letters, &c., have been received from—

A.—Dr. M. Aicken, Belfast; Dr. J. B. Anderson, Lond.; Dr. Anderson, Sunderland; Messrs. Anderson, Anderson, and Anderson, Lond.; A. C. P., Grantham; Aberdeen, Lond.; "A Successful Candidate"; A. D., Lond.

B.—Dr. J. D. Brandon, Victor, Colorado, U.S.A.; Dr. R. Barnes, Liss; Dr. Judson Bury, Manchester; Dr. P. Boobbyer, Nottingham; Surg.-Lieutenant R. J. Blackham, Aldershot; Mr. G. E. Baldwin, Lond.; Mr. R. B. W. Brewer, Newport, Mon.; Mr. G. R. Butler, Lond.; Mr. B. Baker, Brighton; Mr. G. Beal, Brighton; Mr. T. H. Brocklehurst, Weymouth; Mr. T. B. Browne, Lond.; Mr. W. Berry, Wigan; Mr. C. Banks, Enfield; Mr. C. Boardman, Haverhill; Mrs. W. W. Bruce, Lond.; Messrs. Burroughs, Wellcome and Co., Lond.; Messrs. Brown Bros., Lond.; Messrs. P. B. Burgoyne and Co., Lond.; Messrs. Blondeau et Cie, Lond.; Bristol Gen. Hosp., Sec. of; Bryant Press, Toronto, Sec. of; British Medical Benevolent Fund, Lond., Sec. of; British American Ball Nozzle Co., Lond.

C.—Dr. Beattie Crozier, Lond.; Dr. L. Cane, Peterborough; Dr. C. H. Carter, Lond.; Mr. F. J. Carter, Taormina, Sicily; Mr. J. B. Cornish, Manchester; Mr. B. Cooper, Lond.; Mr. J. Craven, Bradford; Mr. W. M. Clemmey, Beotle; Cumberland Infirmary, Carlisle, Sec. of; Clinical Society of Lond., Sec. of; Central Lond. Throat and Ear Hosp., Sec. of; County Asylum, Dorchester, Med. Supt. of.

D.—Mr. W. G. Dickinson, Lond.; Mr. R. Drennan, Totnes; Doncaster Gen. Infirmary, Sec. of; Dermatological Society of Gt. Britain and Ireland, Lond., Sec. of; *Daily Argus*, Birmingham, Editor of; Digit Lond.

E.—Mr. W. F. Eason, Booth; Epidemiological Society, Lond., Sec. of; "Excel" Sterilised Milk Co., Lond.

F.—Dr. R. H. Fox, Lond.; Dr. G. Fitzgerald, Lond.; Mr. C. M. Fegen, Toddington; Mr. C. A. François, St. Blazey; Mr. W. A. Frost, Lond.; Miss L. P. Fowler, Lond.

G.—Dr. W. R. Gowers, Lond.; Mr. E. R. Griffiths, Blayney, N.S.W.; Mr. W. George, Lond.; Messrs. Gale and Co., Lond.; Messrs. Garnon, Farmer and Garnon, Chester; General Advertiser, Lond., Sec. of; General Register Office, Dublin, Sec. of.

H.—Dr. F. J. Harpur, Cairo; Dr. C. O. Hawthorne, Glasg.; Dr. B. Hawkins, Dudley; Dr. C. W. Hayward, Liverpool; Rev. W. Hanlon, Innishannon, co. Cork; Mr. J. Heywood, Manchester; Mr. P. Holmes, Lond.; Mr. T. Garrett Horder; Mr. G. Holland, Barnton; Mrs. K. P. Hicks, Lond.; Messrs. Hertz and Collingwood, Lond.; Messrs. Holding.

L.—Mr. R. Istance, Monmouth.

J.—Mr. A. Jacobs, New York; St. John Ambulance Assn., Lond., Chief Sec. of; J. W. S., Lond.

K.—Dr. J. B. Kerr, Bury, Lancs.; Mr. R. C. B. Kerin, Lond.; Mr. H. Knevitt, Ealing; Messrs. Kiesow and Co., Lond.

L.—Dr. D. Lewis, Gelliven; Dr. J. F. Little, Lond.; Dr. R. T. Lee, Lond.; Mr. H. Lund, Manchester; Mr. J. C. Lumley, Darlington.

M.—Dr. A. Macgregor, Lond.; Dr. H. J. Macevoy, Lond.; Dr. P. Manson, Lond.; Dr. J. A. H. Murray, Oxford; Mr. G. B. Main, Glasg.; Mr. T. G. Mayo; Mr. C. Mansell Moullin, Lond.; Mr. A. A. Mitchell, Merionethsh.; Mr. E. M. Murray, Switzerland; Mr. J. Mason, Otaki, N.Z.; Mr. H. C. MacBryan, Box; Mr. A. G. Minns, Lond.; Manchester Medico-Ethical Assn., Sec. of; Maine State Board of Health, Augusta, Sec. of; *Minster*, Lond., Editor of; Maltine Mfg. Co., Lond.; M.D., T.C.D., Lond.; Matron, Lond.

N.—Mr. C. H. Newby, Southsea; Messrs. Newton and Co., Lond.; National Hosp. for Paralysed, &c., Lond., Sec. of; Nantwich Union Workhouse, Master of.

O.—Dr. J. Oliver, Lond.; Mr. Openshaw, Lond.

P.—Surg.-Major F. F. Perry, Lahore, India; Mr. F. T. Pain; Mr. C. Puzey, Liverpool; Mr. Y. J. Pentland, Edinburgh; Portsmouth Asylum, Med. Off. of Health of; Price's Patent Candle Co., Lond., Sec. of; Purchaser, Lond.

R.—Lord Rowton, Lond.; Mr. J. Ritchie, Lond.; Mr. H. A. Roechling, Leicester; Messrs. Rogers and Chernoviz, Paris; Messrs. W. A. Ross and Sons, Belfast; Messrs. J. Raphael and Co., Lond.; Messrs. Roberts and Co., Lond.; Romo y Füssel, Madrid; Roy. Inst. of Gt. Britain, Lond., Sec. of; Roy. British Nurses' Assn., Lond., Sec. of.

S.—Dr. G. A. Sutherland, Lond.; Dr. H. Simpson, Colwyn Bay; Dr. G. B. Smith, Lond.; Dr. L. B. Stevenson, Penrith; Dr. Smith, Lewisham; Dr. A. W. Stirling, Atlanta, Georgia; Dr. F. Syrett, Lond.; Mr. A. G. Southcombe, Lond.; Mr. G. Stork, Leeds; Mr. H. Smith, Brighton; Mr. A. R. Sydney, Wilmot, Tonbridge; Mr. A. Stenhouse, Glasgow; Mr. W. Semmell, Portsea; Messrs. Stubbs, Lond.; Messrs. G. Street and Co., Lond.; Salford Royal Hosp., Sec. of; Sun Life Assurance Society, Lond., Sec. of; Stirling and Dumbarton County Council, Glasg., Med. Off. of Health of; St. Peter's Hosp. for Stone, Lond., Sec. of; Sanitary Inst., Lond., Sec. of; Shipman Engine Mfg. Co., Rochester, N.Y.; Sanitary Wood Wool Co., Lond.; Scottish Preserves Co., Greenock; *State Medical Journal*, St. Louis, Mo., U.S.A.; S. D., Lond.

T.—Dr. G. L. Turnbull, Lond.; Mr. E. Tidman, Lond.; Mr. H. Tilley, Lond.; Mr. C. A. P. Truman, Lond.; Mr. J. Thin, Edinburgh; Mr. A. H. Thompson, Poplar; Mr. W. T. Thomas, Liverpool; Captain Trollope, Lond.

U.—Unemployed, Lond.

V.—Messrs. Vigor and Co., Lond.

W.—Dr. W. W. Webb, Netley; Dr. W. Wallace, Crick; Dr. H. W. Webber, Plymouth; Dr. F. J. Waldo, Lond.; Mr. A. R. Wilmot, Tonbridge; Mr. V. M. Wade-Rar, Dhar Palace, Central India; Mr. T. Wood, Crewe; Miss Walker, Lond.; Messrs. J. Wright and Co., Bristol; Western Gen. Dispensary, Lond., Sec. of; West Lond. Post Graduate Course, Sec. of; West Middlesex Inst. for Trained Nurses, Lond., Sec. of.

Y.—Mr. T. Young, Glasg.

Letters, each with enclosure, are also acknowledged from—

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The Lettsomian Lectures
ON
THE OBJECTS AND LIMITS OF OPERATIONS FOR CANCER.

Delivered before the Medical Society of London

BY W. WATSON CHEYNE, F.R.C.S. ENG., F.R.S.,
PROFESSOR OF SURGERY AT KING'S COLLEGE; SURGEON TO KING'S COLLEGE HOSPITAL, ETC.

LECTURE I.[1]

Delivered on Feb. 3rd, 1896.

MR. PRESIDENT AND GENTLEMEN,—In the first place allow me to thank you for the high honour you have done me in selecting me as your Lettsomian lecturer on this occasion. While your selection has done me great honour and given me much pleasure it has also caused me great anxiety, more especially in the choice of a subject which would be of sufficient interest to the Fellows of this society. For it seems to me that the great value of lectures of this kind is that they afford an opportunity not so much of presenting original work as of reviewing the present standpoint of medical science in some particular department, of criticising the advances that have been made, of seeing what of these advances are good and what are of doubtful value, and thus of furnishing a basis for further work. One of the departments in which there has been much activity of late years is in the treatment of cancerous diseases. The last few years have seen marked alterations in the older methods of operating in these cases, and also the introduction of operations in regions and of an extent formerly not thought of. Opinions differ very much at the present time as to the utility of many of these surgical procedures, and it is a matter of much interest and importance to consider the results which have been obtained and to come to some definite conclusions as to their value. And it is with a view of trying to estimate the value of the work done in this department that I have decided to discuss in these lectures the objects which we should aim at, and the limits to which we may go, in operating for cancerous diseases.

By cancer I mean the carcinomata the essential feature of which is continuous and excessive growth of epithelium. Once this growth has commenced nothing that we know of has any power to stop it. It invades the surrounding tissues, it spreads along the lymphatic vessels or is carried by these vessels to the nearest lymphatic glands, it passes from one lymphatic gland, or one chain of lymphatic glands, to another till it ultimately reaches the main lymphatic trunks, through which it enters the blood stream and is deposited in distant organs and parts of the body. Deposited in these organs it again grows, and the same cycle of events follows, or would follow were it not that the patient soon succumbs from general poisoning as the result of absorption of materials elaborated at the seat of the disease, from interference with the vital functions owing to the presence of the growth in important organs, from repeated hæmorrhages due to erosion of bloodvessels, and so on. Once this overgrowth of epithelium has begun, it goes on inexorably, unless we can arrest it, to the one fatal end.

A question of great importance for our subject is that of the local or constitutional origin of cancer, and I may say at once that so far as I am concerned cancer is essentially a local disease. Formerly cancer was very generally regarded as a constitutional affection and therefore cure by operation alone was looked on as hopeless, and medicaments of all kinds were poured into the patients so as to expel the black bile or whatever else was supposed to be the cause of the disease. Operation was looked upon simply as a means of prolonging life for a short time, of relieving the patient's mental anxiety, and of getting rid of certain local troubles, and not as a means of permanently freeing the patient from the disease. Indeed, the chief reasons formerly adduced in support of the constitutional origin were the rapid recurrence of the disease after operation and the increased rapidity of growth of these recurrences, and this was supposed to be due to the increased activity of the constitutional condition as a result of the local disturbance. Of late, however, more especially since the microscope has revealed the character of the disease, the view of the local origin of cancer has been gaining ground, and surgeons for the most part now undertake these operations in the hope of curing the patient and not merely of temporarily prolonging life. Recurrence in deeper tissues is no evidence in favour of the constitutional theory, for as epithelium only grows from epithelium, the fresh growth of a mass of epithelial cells in muscles, glands, connective tissues, &c., after an operation, could not imply that we have to do with a constitutional disease which has broken out again, but simply that all the epithelial invasion was not removed in the first instance. The fact that there are now many cases on record where patients have remained for a long time well after operation is also evidence in favour of the local origin of cancer. I shall presently refer to some statistics on this point, but I may here mention two remarkable examples showing the local nature of recurrences. The most striking of these is a case recorded by Gross of spindle-celled sarcoma of the breast (and the argument is the same here as for carcinoma) where, after twenty-two operations performed during the course of four years, and the removal of almost all the pectoral and intercostal muscles, the patient remained well and had no trace of recurrence nearly eleven years later, the only conclusion here being that at all previous operations portions of disease had been left behind, but that at length all had been rooted out. The other is a case narrated by Oldekop, where a cancer of the breast was removed in 1852 with recurrence a few months later. Three years afterwards the other breast was removed for cancer, and this was followed by rapid recurrence a month later and a fresh operation. The patient was well twenty-three years subsequently, having had no further trouble.

Is cancer curable? Theoretically, being a local disease and spreading in the way we have described, it should be quite curable in cases where it is possible to remove all the off-shoots from the primary nodule, and clinical evidence bears out this view. We know that if any visible portion of disease is left behind recurrence takes place almost at once, and even when the disease left is invisible recurrence takes place in the majority of cases within a year. The cases which recur later are quite few in number, and after three years the chances of recurrence are so slight that most surgeons assume, following Volkmann, that a patient who shows no disease for three years after an operation may be looked on as cured, and they ascribe disease appearing locally at a later period to a fresh development and not to a residue of the old trouble. Cases, however, are sometimes met with in which late recurrence takes place in parts, such as in glands, where the cells must have remained dormant from the time of the previous operation. Not very long ago I assisted Sir Joseph Lister in operating on a case in which the breast had been removed for cancer about fifteen years previously. At that time a few very small, hard glands were felt in the axilla, but were not touched. They remained *in statu quo* till a short time before the second operation, when they began to enlarge, and were accordingly taken away. On examination they proved to be carcinomatous glands. While writing this paper I have seen a case in which the breast and axillary glands were removed nearly four years ago and in which a small recurrence in the axilla has just been noticed, and Case 12, Table I., is apparently a similar example. In the list of tongue cases, to be dealt with in the following lectures, two will be found of Kocher's where disease reappeared locally ten and twelve years after the operation, but in these the question of a fresh development arises. Gross has gone very fully into this matter, and states that of all the recurrences after breast operations at most 2·3 per cent. take place after three years. On the other hand, König gives a much larger proportion of late recurrences, placing it at 15 per cent. in patients alive and well after three years. The facts, however, vary very much with the situation and kind of disease; in the case of intestinal cancer late recurrences are by no means rare. Nevertheless, for all practical purposes we may adopt the three-year limit and may feel sure that when a patient, especially with breast or throat cancer, has passed that limit safely the great probability is that he will have no further trouble.

If we take the cases of disease in parts where it is in the first instance superficial, and where there is plenty of room for cutting wide of it, we find a large number which remain free from recurrence for many years. I may instance especially epithelioma affecting the extremities. There the

[1] Lectures II. and III. will be delivered on Feb. 17th and March 2nd respectively.

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disease is superficial in the first instance, the epithelial cells are apparently not so readily, or at any rate not so early, carried along the lymphatic vessels as in cases where muscles are affected or where the cancer cells are smaller, as in the breast. The glands are readily accessible and one can get well beyond the disease by amputation, and in amputating well above the part the local disease is thoroughly and widely removed. Statistics of the results of cancer of the extremities are given by various authors and are very favourable. Thus, to mention only one, R. Volkmann in his papers on this subject in Volkmann's *Klinische Vorträge* gives the cures as 51 per cent. and the recurrences as 35 per cent.

Another very favourite seat of cancer is in the face, and there also we have probably all had cases where free removal of the disease has apparently cured the patient. The least favourable of the face cancers is that of the lip, no doubt because the muscle is soon attacked, but even here the results strongly support the view of the curability of the disease. Thus Worner brings forward a large number of cases—277 operations—which had occurred in Von Bruns's clinique during a period of forty-one years. Of these, 106, or 38·2 per cent., remained well for more than three years, and in 54, which also remained well, the three-year limit had not yet been reached. The recurrences were 36 per cent. Twenty-one of the patients had remained well for periods varying from ten to forty years. Maiweg gives the results at Bonn of 182 patients, and of these 81 had remained free from recurrence for from three to eighteen years, giving the percentage of cures at about 44 per cent.; in 49 of these cases more than six years had elapsed, and in addition to this number there were also 44 who were free from recurrence but who had not yet reached the three-year limit. It is also an encouraging point with regard to these cases that in several of those ultimately cured one or more operations for recurrence have been carried out soon after the first operation. Thus, in the 81 cured cases in Maiweg's list 9 had had recurrences, 1 of them thrice, 1 twice, and the rest once. Taking the results of a large number of surgeons together—namely, Thiersch, Billroth, Von Bergmann, Von Winiwarter, Fischer, Koch. Partsch, and Bruns—the proportion of cases of cancer of the lip well three years after operation is 28·1 per cent.

Take, again, uterine cancer. Hoffmeier gives the cases of cancer of the portio vaginalis and cervix uteri operated on in Schröder's clinique, and of these 42 per cent. remained well after three years and 41·3 per cent. after four years, the operation being in most of them high amputation of the cervix. In Martin's statistics of total extirpation of the uterus for all forms of cancer 45·7 per cent. remained well after three years. Of these, 10 were cases of cancer of the body of the uterus, and recurrence only took place in one. In both of these reports, however, we probably have to do with carefully selected cases and do not thus get a true view of the probability of cure.

Let us pass on now to the subject proper of these lectures—namely, the *objects and limits of operation* in cases of this disease. The primary object of operation in cancer is, of course, the prolongation of the patient's life and the alleviation of his local trouble, and what I propose to assert in these lectures is that these results are in most cases best attained by aiming, where possible, at the cure of the disease. Up till quite recently, and even now, many surgeons approach operation in these cases impressed with the view that real cure is practically hopeless, and that, with a few rare exceptions, the most that can be expected is prolongation of life for a variable length of time. They therefore oppose elaborate and extensive operations which in themselves must involve considerable risk of life and are content with fairly free removal of noticeable disease; in some cases, indeed, they do not even go so far. For example, in cases of mammary cancer, even where some enlarged glands are to be felt in the axilla, they comfort themselves with the idea that the glands may only be enlarged from irritation and not from cancerous deposit, and therefore leave them alone until their true cancerous nature is only too evident. Of course, if operations are performed in this manner and with these views, it is no wonder that these surgeons are confirmed in their views and go on operating on cancer with the sole object of prolonging life for a comparatively short time. In discussing the curability of the disease I have already mentioned evidence as regards cancer of the extremities, lips, and uterus which shows that a real cure is obtainable in a very considerable proportion of cases, and in the following lectures I shall try to produce similar evidence as regards other parts. I therefore hold, and would strongly urge, the view that the first question to be kept before us in investigating a case of cancer is whether there is any possibility of curing the disease or not. Such a point of view makes a very great difference in the operation, for it is not then sufficient to remove only the noticeable disease, but it is necessary to take away as far as possible the parts in which disease may have become disseminated although still unrecognisable—in other words, possibly infected lymphatic areas. Thus, if the skin is affected a considerable portion around must be taken away, and this is the more necessary where the infection of the skin has come from beneath, as, for example, where cancers of the breast reach the surface, for the dissemination in the cutaneous lymphatic plexus is often under these circumstances very rapid and extensive, and this is probably due in part to the larger size of the deep cutaneous plexus, which will, in the latter case, be first involved. Again, where muscle is infected the cancer cells are very rapidly and early driven along the lymphatic vessels of the muscle, and even though there may only be one visible nodule in the muscle the whole or the greater part of it must be looked on as suspicious and must be removed if there is to be anything like certainty in attaining the object of the operation—namely, the patient's cure. Again, as regards the lymphatic glands, we know that from a very early period they become affected, and that, of course, without any visible enlargement in the first instance; and, in addition to this infection of the glands without enlargement, plugs of cancer cells very often stick in the lymphatic vessels on their way to the glands. Hence it is necessary in all cases where the disease has lasted any time or extended at all deeply not only to remove the primary mass freely but also to take away the whole lymphatic area up to, and including, the nearest lymphatic glands. Thus the operation performed with the object of curing the disease becomes a much more extensive one, and consequently much more serious, than that which simply aims at getting rid of the main trouble for a time and prolonging the patient's life.

The first question to be considered, then, with regard to a case of cancer is the anatomical one—namely, whether it is anatomically possible to remove all the local disease and the probably infected lymphatic area so thoroughly as to give a fair chance of non-recurrence. If this is anatomically possible the next questions are what are the chances of death as the result of the operation, and what will be the subsequent functional result? In considering these questions we must remember that we are dealing with an otherwise incurable disease, one which is comparatively rapidly fatal, and one which in certain regions—for example, the throat—is often the cause of very extreme suffering before death supervenes, and therefore, even although the risks are very great, unless the result of the operation is certainly fatal the question of operation ought to be presented to the patient if there is a reasonable chance of removing the disease. There is at the present time a tendency with some surgeons to careful selection of cancer cases for operation—that is to say, only to operate on quite simple cases. This is not, I think, a proper point of view. No doubt it is the way to get good statistics; but what of the poor patients who are not operated on because the prospect of success is not good? I do not think that patients should be refused operation unless the disease cannot be removed, unless early recurrence is very highly probable, or unless operation means almost certain death or yields a hopeless functional result. Of course, if one has something better to substitute for the radical operation, such as colotomy in extensive rectal cancer, the matter is quite different, but where this is not the case the patient should be told all the circumstances and allowed to take his choice. The position which one ought to take up as adviser of the patient is, I admit, in some of these cases a very difficult one. The following are the lines which I myself go upon. If there is no especial danger in the operation, and the chances of cure are good, as in the case of an ordinary breast cancer, then I should urge the operation, and should not enter into any such details with regard to it or the disease as might frighten the patient. Where the operation is more severe and the probable result is not so good—as, for example, in a breast case with marked adhesion to the muscles—I do not urge the operation, but I tell the patient that I think it is still worth while taking the chance, and I also point out that there is likely to be a good deal of inconvenience after the operation in the way of interference with the movement of the arm; such a patient will usually decide to have the operation done. Where the immediate

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danger of the operation is very great, as in the throat cases which I shall mention in the next lecture, but where it still seems anatomically possible to take away the whole disease, the decision must, I think, be left entirely to the patient. The dangers of the operation and the risks of recurrence must be fully pointed out, as well as the subsequent functional results, and the patient must be left to decide. The position which I have assumed in these cases is this, that after emphasising the dangers of the operation and laying the whole matter before the patient in its worst light I have said that if he wishes to avail himself of the chance I am willing to perform the operation. The majority of such patients, when they know the facts of the case, prefer to make the best they can of what period of life remains to them, while some on the other hand decide to have the operation performed, and a certain proportion of these, small, it is true, reap their reward in marked prolongation of life, or even in permanent freedom from the disease. The primary object of operation in these cases being, therefore, cure, the limits of the radical operation are where there is no reasonable prospect of removing the whole disease, or where, along with a very poor prospect of success, there is a very high mortality from the attempt. In such cases I do not think that operation should be mentioned at all, for even where the patient recovers from it and has presumably two or three months added to his life few would, I think, thank one for it, seeing that these two or three months have been spent in convalescing from a serious and, in the end, useless operation. But even in cases where hopes of cure or marked prolongation of life by a radical operation are out of the question operation may sometimes be advisable, with the object of removing symptoms which are immediately threatening to life, such operations, for example, as tracheotomy, colotomy, &c., or, in the second place, with the object of taking away the primary disease from a part, such as the mouth or throat, where its continued development means intense pain and trouble, and thus of substituting for these troubles an easier death from exhaustion. A *sine quâ non* of such operations must, however, be that they are reasonably free from immediate risk, and with regard to the second class that there is a prospect of attaining the object of the operation—namely, the entire removal of the disease from the part operated on. I do not think that a dangerous operation is allowable for simple relief of symptoms, however proper it may be if a cure may be hoped for. There are thus two different objects to be held in view, and two different questions as regards operation which we must bear in mind in treating a case of cancer—namely (1) can we reasonably hope for a cure? for if we can, a serious or dangerous operation is permissible; or (2) cure not being possible, can we decidedly ameliorate the patient's condition by operation, such operation, however, not involving any great risk to life?

It is, of course, impossible for me in the time at my disposal to discuss the objects and limits of operation for cancer in all parts of the body, and I have therefore selected three regions for examination—namely (1) the breast, (2) the throat, and (3) the intestinal tract, as these three regions illustrate very well all the points bearing on our subject.

1. CANCER OF THE BREAST.

The female breast is one of the most common seats of cancerous disease, and great attention has consequently been paid to cancer in this region, but it is only recently that any important advance has taken place. When I was attending classes on surgery, twenty-four years ago, the teaching which I received, except from Sir Joseph Lister, as regards the method of operation, was simply to remove the breast in these cases by an elliptical incision including the nipple. The pectoral fascia was not taken away; indeed, it was held that on no account must it be touched, because otherwise the suppuration which was apt to follow might be extremely dangerous; and, lastly, only rarely and with the greatest hesitation were one or two glands excised away from the axilla. As antiseptic surgery began to exercise its influence, and as it became evident that the extent of the operation did not increase the risk of septic disease, the tendency was towards more extensive operations, and in this, as in many other departments of surgery for which he gets no credit, Sir Joseph Lister took the lead and began to extend the area of operation, especially in the way of more extensive, and finally of more or less complete, removal of the axillary contents and of the pectoral fascia. It was not, however, till the researches of Heidenhain, and subsequently of Stiles and others in this country, that we knew exactly how the disease extended, or, indeed, how extensive the mammary gland itself was. As the result of these researches, we now know that by the older methods of operating, and, indeed, by any method which does not take proper cognisance of the facts which these recent researches have brought to light, the patient never really has a chance of cure, properly speaking, and the wonder is not that recurrence so constantly takes place, but that in any cases apparent cure follows. Where a cancer returns after an operation it of course means that the operation has not been sufficiently extensive to take away all the previously existing disease, and it is only what one would expect that with imperfect removal the likelihood of recurrence should be very great. Of course, one cannot remove the internal metastatic deposits, and they may be, and often are, present at the time of the operation without having as yet given rise to any symptoms; but, on the other hand, the local return must be looked upon as the fault of the surgeon in not taking away enough of the tissue. No doubt in many cases this is a fault which is quite unavoidable owing to the excessive and undiscoverable dissemination of the disease; but improvement in the results can only take place if we put the blame of the local recurrence on the operator, for just as we must assume at the present day that suppuration or the occurrence of septic disease after an operation through unbroken skin is entirely the fault of the surgeon, so it must be admitted, though not by any means to such an extreme extent, that a recurrence in the track of an operation wound or in the neighbouring glands also implies an imperfect operation.

Before going on to discuss the results of operation for cancer of the breast I must very shortly indicate the sort of procedure which I think is necessary, and as I have already written on this subject I need not go at all fully into details. Knowing the very early period at which the cancer cells get into the lymphatic vessels, an operation to be at all complete must include the primary disease, the lymph channels leading from it, and the whole mass of the nearest lymphatic glands. It does not, however, follow that when these glands are enlarged it is not absolutely necessary to go beyond the first group because, for a time at any rate, the disease seems to be held back at that point; but, as I say, the minimum operation for cancer which will offer anything like a real chance of cure must take away everything up to, and including, the first chain of glands. Hence, in the case of the breast we must remove the primary disease, the whole breast the tissue in which the lymphatics run from the breast to the axilla, and the whole of the axillary glands. In this connexion we must remember that recent researches have shown that the breast is a very much more extensive organ than was formerly supposed, and that by the old method of operating practically only the central part was taken away. Lobules of the breast run in the fat over the pectoral muscle nearly up to the clavicle, well into the axillary line, almost on to the sternum, and downwards on to the origin of the abdominal muscles. In the deeper part, also, the lobules of the breast are intimately connected with the pectoral fascia, and the removal of the breast without simultaneous thorough removal of the pectoral fascia inevitably means that numerous lobules are left behind. Hence our skin incisions must be very much more free than formerly was the rule, and for my own part I always take away the skin coextensive with the prominent part of the organ. There is another reason for taking away this large amount of skin—namely, the existence of the suspensory ligaments of the breast, in which lymphatic vessels run from the organ to the skin, and these are not at all infrequently infected with cancer cells. In addition to this portion absolutely taken away, the skin all around must be raised, leaving fat and lobules of the breast, as high as the clavicle, as far inwards as the middle of the sternum, downwards on to the abdominal muscles, and outwards on to the latissimus dorsi, and one advantage of this free undermining of the skin is that in the great majority of cases one can subsequently bring the edges together by means of stitches. Where the tumour is situated towards one side of the breast additional portions of skin must be taken away in a V-shaped manner, so that all the skin from the vicinity of the disease is removed. The skin flaps being held up, the pectoral muscle must be exposed at the upper part, and then, in order to ensure the removal of the fascia, a layer of the whole surface of the muscle must be taken away, and when the lower and outer edge of the pectoral muscle is reached the fascia over the serratus magnus and the whole fatty tissue containing lymphatics, as

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far back as the edge of the latissimus dorsi, must be detached. In this way the primary disease, the breast, and the lymphatic vessels running in the fat and pectoral fascia towards the axilla are separated, and then one proceeds to clear out the whole contents of the axilla, finally leaving the nerves and vessels thoroughly cleaned, as in an anatomical dissection. One first follows the fat and fascia running between the pectoralis major and minor on to the costo-coracoid membrane; and then I explore the axillary vein at the lower part and tear open its sheath along its whole length. Then, raising the pectoralis minor, I begin at the very apex of the axilla right up under the clavicle, and with a curved blunt instrument (the one I find most useful is a periosteum detacher invented by Dr. Greville Macdonald for operations on the nasal septum), and the finger detach the whole fat and included glands and lymphatic vessels till everything except the important structures in the axilla has been got away. It is very important also that the whole tissue should be removed in one piece; in the first place it is of great advantage in clearing the axilla to have the parts dragged down by the weight of the breast, and in the second place it is very important not to cut through tissue which may be actually diseased, and which may lead to subsequent infection of the wound, as might be the case were the mamma taken away in the first instance and the axillary tissues removed subsequently. And this risk of soiling of the wound is no imaginary one; had I time I could bring forward evidence to show that recurrence may be due to this cause, and that if it can possibly be avoided a malignant tumour should not be cut into, and on no account should it be removed piecemeal, as is sometimes done in other parts of the body.

This operation is, in my opinion, the least extensive which ought to be done, even in a simple case, if the object is to cure the patient, but it must be modified and extended in most instances according to circumstances. Where the skin is much tacked down over the tumour, although it may not be actually involved in the disease, the cutaneous lymphatic vessels and those running in the suspensory ligaments are apt to be affected over a wide area, and hence it is necessary in such cases to cut exceptionally wide of the disease. Where the tumour itself actually involves the skin, however, we know that the disease has almost certainly spread widely in the cutaneous lymphatic plexus, and in such a case one must not hesitate to remove the skin extremely freely and to leave a wound the edges of which it may not be possible to bring together. If such a wound is left it can very readily be closed by skin grafting, either at the time of the original operation, or if the patient is too exhausted about ten days or a fortnight afterwards.

Where the tumour is adherent to the pectoral fascia, as is very commonly the case, I think it is advisable to take away the whole thickness of the muscle at that part, and as the lymph tends to be forced onwards in the direction of the muscular fibres the mass of muscle removed should be detached along its whole length, from its origin to its insertion. In operating on such cases, as I approach the neighbourhood of the tumour I usually sink my hand through the muscle and then rapidly separate the part grasped from origin to insertion, and detach it at both ends, and, as a matter of fact, in many of my cases I have done this and have thus removed a considerable part of the lower portion of the pectoral muscle. Halsted and others advise that the pectoral muscle, at any rate its sternal origin, should be taken away in every case, partly in order to get thoroughly rid of the pectoral fascia and partly in order to be able to clear out the axilla more effectually. As will be evident when I come to compare my statistics with Halsted's, this is really not necessary unless there are actual nodules in the substance of the muscle, more especially where the lower portion of the muscle is removed in the manner I have described there is no difficulty whatever in pulling up the remains of the pectoral muscle sufficiently to obtain complete access to the upper part of the axilla.

Where the muscle itself is actually diseased—that is to say, where there are one or more nodules in the muscular substance—it has been pointed out by Heidenhain that the whole muscle must be looked on as infected, for the muscular contractions very quickly distribute the contents of the lymphatic vessels over it. He therefore advises complete removal of the pectoralis major under these circumstances. I am inclined to think, however, that even in these cases it is often sufficient to take away the sternal origin of the muscle, and that the clavicular portion may be left unless there is actual disease present in it. The connexion between the two portions is not very intimate, and from a functional point of view it is of great importance to leave the clavicular part.

Where the glands in the axilla are markedly enlarged the question arises as to how far one should go. In the first place, under such circumstances, it is certainly well to see what one is doing, and while if the pectoral muscle is not affected at all I prefer leaving it, I think it is well to divide it transversely and after the operation to stitch it up. The chief question, however, which has to be considered is whether, having found the higher axillary glands enlarged, one ought not to go further and remove the glands from the posterior triangle of the neck. Some have, indeed, tried to make it a universal rule that if the axillary glands are at all enlarged those in the posterior triangle must also be taken away; but, as I have already said, the first chain of glands opposes a barrier for a considerable time against the onward spread of the disease, and if only it is thoroughly removed I think one may in most cases be content. Where the cancer is a slow-growing one and only the lower axillary glands are noticeably enlarged I do not, therefore, open up the posterior triangle of the neck, and, so far as I can recall, I have only twice had recurrence in the supra-clavicular glands. If, however, the highest axillary glands are noticeably affected, it stands to reason that the posterior triangle of the neck should be opened. Unfortunately, however, in these cases the line of infection does not so much run into the posterior triangle as along the subclavian vein into the thorax along a route that is only imperfectly accessible even when the posterior triangle is opened, and I have not seen much benefit in the way of finding and rooting out disease as the result of opening up the posterior triangle. Mr. Arbuthnot Lane apparently advocates division of the clavicle and clearing out the supra-clavicular glands in all cases, but this is a method which I cannot at all agree with, and I think that my results bear me out; and where the disease is noticeable in the supra-clavicular glands I believe that cure is hopeless. Some have also advocated amputation at the shoulder-joint with the view of removing the axillary disease still more thoroughly, and this was first done by Sir Joseph Lister, partly at my own instigation. I do not, however, believe that when the disease has gone so far as to necessitate such a procedure there is the slightest probability of curing the patient. The conditions under which amputation of the arm would be necessary are the presence of a large mass in the axilla involving the nerves, for involvement of the vein or the artery, or even of both, does not necessitate amputation. I have on more than one occasion removed portions of the axillary vein to which glands were firmly adherent, and in one case I removed both vein and artery without any loss of vitality or other trouble in the limb; but where the disease is so diffuse as to involve the nerves I think it may be taken as certain that it has extended beyond reach.

As regards the limits of operation for cure in breast cancer, therefore, I would exclude from operation (1) cases of cancer *en cuirasse*; (2) cases where there is a large mass in the axilla involving the nerves; (3) cases where large glands can be felt above the clavicle; and (4) all cases where secondary cancers already exist elsewhere. In none of these instances is there any reasonable prospect of cure; and there will be but little to be gained by subjecting the patient to the elaborate operations to which I have referred. Short of these conditions, however, I think a patient ought to have the chance of operation, and though, as I have said before, I would not urge it in bad cases I think she should be allowed to choose. Even where the operation fails to cure, the prolongation of life is often marked, much more so after these thorough operations than after the ordinary imperfect procedure. In this list I have not included cancerous cachexia, as is usually done, because it seems to be due to absorption of products from the cancerous growth, and does not necessarily imply a general internal infection. I have repeatedly seen patients with marked cancerous cachexia improve immensely after the operation.

In considering the results of former and recent methods of operation for cancer of the breast we may look either at the question of cure or at that of local recurrence, and the most satisfactory conclusion is, I think, obtained when we take both together; indeed, since the most recent views have influenced practice the time is too short for the accumulation of any large statistics as regards cure, and one must therefore judge of the effect to some extent by considering the

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TABLE I.—ALL THE CASES OF CANCER OF THE FEMALE BREAST SINCE 1890 (VERIFIED BY MICROSCOPICAL EXAMINATION) IN WHICH THE FIRST OPERATION WAS PERFORMED BY MR. WATSON CHEYNE.

A.—Cases where Three Years at least have Elapsed since the Operation.

No.	Age.	Date of operation.	Disease noticed for about—	Seat and extent.	Nature of operation.	Results up to February, 1896.		
						External recurrence.	Metastatic deposit.	No recurrence as yet.
1	52	21/1/90	2 years ...	Nodule, size of walnut; numerous small, hard glands.	Usual	No	No	Well, 6 years later. Cured.
2	47	11/2/90	2 years ...	Large tumour; glands small; marked cachexia.	Usual	?	Abdominal swelling developed 9 months after operation. Died 21 months after operation.	
3	40	25/3/90	1 year... ...	Large tumour, above and internal to nipple, adherent to skin and muscles. Glands.	Usual and portion of pectoral muscle.	In 6 months. Nodules on rib.	Probably mediastinal growth.	
4	38	20/5/90	2 months ...	Largish mass above nipple. A good many glands.	Usual	No	No	Well, 5 years 9 months later. Cured.
5	50	4/11/90	Paget's Eczema 2½ years. Tumour in breast noticed for 6 months.	Elongated mass external to nipple, adherent to skin; nipple retracted, flattened, and eczematous. Glands in axilla.	Usual	No	No	Well, 5 years and 3 months. Cured.
6	47	14/2/91	2 years ...	Tumour adherent to skin; glands affected, but not very large.	Usual	No	No	Well, 5 years. Cured
7	49	24/2/91	9 months ...	Marked general enlargement of breast. Extensive glandular affection. Marked cachexia. Very bad case.	Usual. Very large amount of skin removed. Skin grafting.	No	Lungs. Died in about 18 months.	
8	33	24/3/91	1 year ...	Large mass in outer side of breast. Large glands. Very weak. Cachexia.	Usual. Large amount of skin. Skin grafting.	Small nodule in skin near angle of scapula. Excised, 24/3/92. No further local recurrence.	Masses in abdomen (? ovary). Died, 17/2/93.	
9	52	31/3/91	Nearly 2 years ...	Ulcerated tumour below and outside nipple. Glands enlarged, but not big.	Usual	No	No	Lived 3 years and 5 months, then died of acute bronchitis. No return. Cured.
10	46	22/10/91	Some months ...	Diffuse. Skin involved. Glands. Nodules found in fat on operating.	Usual	Recurrence in skin in 8 months.	Died of cancer of pleura 14 months after operation.	
11	63	23/10/91	18 months...	Small, diffuse tumour. Glands.	Usual	No	No	Well, 4 years and 3 months. Cured.
12	44	3/11/91	6 months ...	Large mass in breast. Glands: one large one.	Usual. Glands removed from posterior triangle.	Recurred?	... ...	Well, 2 years and 2 months later; recurred and has been again under treatment elsewhere last year.
13	56	27/11/91	3 years ...	Size of hen's egg. Glands considerably enlarged. Atrophic scirrhus.	Usual	No	No	Well, 4 years and 2 months. Cured.
14	62	9/12/91	3 years ...	Gland a good deal shrivelled, skin adherent, not ulcerated; numerous small hard glands. Atrophic scirrhus.	Usual	No	No	Well, 4 years and 1 month. Cured.
15	49	12/12/91	10 months...	Tumour, size of pigeon's egg, on outer side of nipple. Adherent skin. Glands affected, but not very large.	Usual	No	No	Well, 4 years and 1 month. Cured.
16	59	15/3/92	9 months ...	Large mass over upper and outer quadrant. Skin adherent and red. Glands.	Usual, but very extensive removal of skin at the outer part.	No	No	Well, 3 years and 10 months. Cured.
17	63	31/5/92	2 years ...	Large mass towards axillary part of breast, adherent to skin. Glands enlarged.	Usual	No	Deposit in lower part of spine. Much pain in back and leg. Died 21 months after operation.	
18	43	27/9/92	6 months ...	Extensive hardness of upper and outer quadrant. Enlarged glands in axilla and puckering of skin over the lower ones. Glands in supra-clavicular fossa; very bad case.	Usual, but very extensive. Glands removed from above clavicle.	Local recurrence. Seen about a year afterwards. Inoperable.		

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TABLE I.—ALL THE CASES OF CANCER OF THE FEMALE BREAST SINCE 1890 (VERIFIED BY MICROSCOPICAL EXAMINATION) IN WHICH THE FIRST OPERATION WAS PERFORMED BY MR. WATSON CHEYNE.

A.—Cases where Three Years at least have Elapsed since the Operation—Continued.

No.	Age.	Date of operation.	Disease noticed for about—	Seat and extent.	Nature of operation.	Results up to February, 1896. External recurrence.	Metastatic deposit.	No recurrence as yet.
19	42	12/12/92	3 months ...	Mass in upper and outer quadrant. Skin puckers, but is not involved. Glands involved, but not large.	Usual; a good many glands affected.	No	No	Well, 3 years and 1 month. Cured.
20	57	7/1/93	4 months. Cyst (in degenerating cancer?) opened & drained by another surgeon.	Diffuse soft cancer of breast; a good many glands. Sinus leading into the breast. Skin adherent all over; very bad case.	Extensive operation; portion of pectoralis major removed.	Recurred in lower remaining part of pectoralis; about 18 months later removed; again recurred towards upper part of axilla and removed. Now again recurred at root of neck, and inoperable. Still alive.		
21	43	21/2/93	Nearly a year.	Tumour involving greater part of breast and adherent to the skin and deeper parts. Glands infected, but not large.	Usual, and part of pectoralis major.	No	No	Well, almost 3 years. Cured. (I have included this case because it only wants a few days till the completion of the 3 years' limit, and it is certain that it will not recur in that interval.)

Total, 21 cases. No deaths from the operation.
12 cured—i.e., well for more than 3 years.
9 recurred { 5 external recurrences, 3 of them with metastatic deposits as well.
1 recurrence (? external).
3 metastatic deposits without external recurrences.
In percentages, 57 per cent. cured and 42·8 per cent. recurred.
The patients "cured" have lived 6 years, 5 years 9 months, 5 years 3 months, 5 years; 4 years 3 months, 4 years 2 months, 4 years 1 month (2 cases), 3 years 10 months, 3 years 1 month, and 3 years; one died—well 3 years and 5 months after the operation.

B.—Cases where Three Years have not yet Elapsed since the Operation.

22	47	19/4/93	Glands first noticed 4 months ago, then found tumour in breast.	Extensive mass in centre of breast. Glands in axilla enlarged.	Usual	In 4 months. Died 10 months after operation.		
23	60	1/5/93	7 months; rapidly increasing.	Large mass in upper and outer quadrant of the breast. Puckering of skin. Extensive glandular enlargement.	Usual, and sternal origin of pectoralis major and the pectoralis minor.	Recurred 3 months later in skin around and developed into a cancer *en cuirasse*.		
24	76	9/5/93	6 months ...	Large mass in axillary portion of breast, adherent beneath. Glands.	Usual, and part of pectoralis major.	No	Died 6 months later from intestinal obstruction. (? Tumour in abdomen.) No post-mortem examination.	
25	62	17/7/93	2 years ...	Large hard mass beneath left nipple, adherent to skin, and parts behind. Glands in axilla.	Usual, and part of pectoralis major.	... ...	... ...	Cannot trace case.
26	47	11/10/93	Has had some induration of breast since a blow six years ago. For last 2 years swelling has increased.	Hard mass in inner half of breast, adherent to skin. Enlarged glands in axilla.	Usual. Had to skin graft part of incision.	No	No	Well, 2 years and 3 months.
27	50	4/11/93	Some months.	Diffuse hardness of upper part of breast. Glands.	Usual	No	No	Well, 2 years and 3 months. In September, 1894, there was a good deal of swelling of the arm, and as it did not go down I opened up the axilla in November, but found no disease.

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TABLE I.—ALL THE CASES OF CANCER OF THE FEMALE BREAST SINCE 1890 (VERIFIED BY MICROSCOPICAL EXAMINATION) IN WHICH THE FIRST OPERATION WAS PERFORMED BY MR. WATSON CHEYNE.

B.—Cases where Three Years have not yet Elapsed since the Operation—Continued.

No.	Age.	Date of operation.	Disease noticed for about—	Seat and extent.	Nature of operation.	Results up to February, 1896.		
						External recurrence.	Metastatic deposit.	No recurrence as yet.
28	45	27/12/93	2 months ...	Lump below and external to nipple; skin not involved. Glands.	Usual, and lower part of pectoralis major.	... ...	... ...	Lost sight of.
29	69	24/1/94	15 months...	Mass size of orange behind and to inner side of nipple. Skin adherent and red. Mass in axilla. As it turned out, an inoperable case.	Usual, and pectoralis major. Was unable to remove axillary mass as it extended high up and involved all the structures.	Recurred locally and in axilla within a year.		
30	52	7/3/94	6 months ...	Mass below and internal to left nipple; adherent to skin. Glands in axilla.	Usual	No	No	Well, 1 year and 11 months.
31	48	7/3/94	2 years ...	Upper and inner quadrant of right breast. Small lump adherent to skin and pectoral. Glands in axilla.	Usual, and portion of pectoralis major.	No	No	Well, 1 year and 10 months.
32	45	21/3/94	1 month ...	Mass behind nipple. Marked retraction. Skin adherent. Glands.	Usual	No	No	Well, 1 year and 10 months.
33	51	1/4/94	?	Diffuse mass behind nipple. Skin adherent. Mass of glands in axilla.	Usual, and piece of pectoralis major.	No	Shortly afterwards began to complain of pain in the back and limbs, and gradually got weaker, and died about 15 months later. Probably recurrence in vertebræ. No post-mortem.	
34	47	18/5/94	3 months ...	Mass in middle of breast. Glands in axilla.	Usual	... ...	... ...	Died immediately after the operation. The ether left to a great secretion of mucus, and she seemed quite unable to get it up, and was very blue. I think she died chiefly of ether leading to filling of the bronchi with mucus which, owing to her collapsed condition, she was unable to cough up.
35	54	22/5/94	2 years ...	Large mass above left nipple. Skin adherent. Numerous glands in axilla.	Usual, and portion of muscle.	No	No	Well, 1 year and 8 months.
36	58	26/5/94	Cyst tapped 6 years ago. Some thickening remained. 6 months ago lump began to grow.	Large mass in upper and inner quadrant of left breast. Skin adherent. Glands in axilla and above clavicle.	Usual, and a good deal of pectoral muscle and glands above clavicle.	A year later further glands in neck removed. In September, 1895, recurrence in connexion with inner end of fifth rib removed. Still very well, but recurrence over rib.		
37	54	30/7/94	6 months ...	Large diffuse mass on outer side of left breast. Skin adherent. Numerous small hard glands.	Usual, and piece of pectoralis major.	No	No	Well, 1 year and 7 months.
38	58	29/8/94	5 months ...	Mass, size of hen's egg, in lower and outer part of left breast. Several nodules extending towards axilla, and enlarged glands there adherent to skin and muscle.	Usual, and lower part of pectoralis major.	On 24/4/95 a subcutaneous nodule over edge of latissimus dorsi removed.	Later recurred in abdomen. Died about 14 months after operation.	
39	About 50	6/10/94	9 months ...	Tumour in upper part of left breast. Some small glands.	Usual	No	No	Well, 1 year and 7 months.
40	62	17/10/94	4 years ...	Mass in upper part of right breast. Skin adherent and ulcerated. Several small glands.	Usual, and piece of pectoralis major.	No	No	Well, 1 year and 3 months.

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TABLE I.—ALL THE CASES OF CANCER OF THE FEMALE BREAST SINCE 1890 (VERIFIED BY MICROSCOPICAL EXAMINATION) IN WHICH THE FIRST OPERATION WAS PERFORMED BY MR. WATSON CHEYNE.

B.—Cases where Three Years have not yet Elapsed since the Operation—Continued.

No.	Age.	Date of operation.	Disease noticed for about—	Seat and extent.	Nature of operation.	Results up to February, 1896.		
						External recurrence.	Metastatic deposit.	No recurrence as yet.
41	34	6/2/95	8 months ...	Hard mass on outer side of right breast. Adherent to skin and muscle. Enlarged axillary glands.	Usual, and a good deal of the pectoralis major.	No	While recovering from the operation she complained of much pain in her back (sacral region) and on inquiry we found that she had suffered from this for 4 months. She gradually lost flesh and died, after having much pain in the back, 6 months after the operation. Probably spinal deposit.	
42	48	17/4/95	5 months ...	Diffuse hardness on outer side of left nipple with retraction of nipple and much puckering and adhesion to the skin. Enlarged glands.	Usual, and lower part of pectoralis major.	No	No	Well, 9 months.
43	50	5/6/95	4 years ...	Atrophic scirrhus on right side. Skin adherent but not ulcerated. Glands slightly enlarged.	Usual	No	No	Well, 7 months.
44	38	5/6/95	5 months ...	Mass in upper and outer quadrant of left breast, adherent to skin and slightly to deeper parts. Glands small.	Usual	No	No	Well, 7 months.
45	54	14/6/95	3 months ...	Mass in outer and lower quadrant of left breast. Skin adherent. Glands enlarged.	Usual	No	No	Well, 7 months.
46	35	19/6/95	6 months ...	Tumour in left breast. Skin adherent. Glands small.	Usual	No	No	Well, 7 months.
47	46	3/7/95	10 months	Mass in outer side of right breast. Adherent to skin and also deeply. Glands enlarged.	Usual, and portion of pectoralis major.	No	No	Well, 6 months.
48	49	10/7/95	6 months ...	Mass on outer side of breast. Adherent to skin which was red. Enlarged glands.	Usual	No	No	Well, 6 months.
49	58	16/7/95	3 weeks ...	Mass on outer side of left breast. Adherent to skin. Enlarged glands.	Usual	No	No	Well, 6 months.
50	44	16/7/95	1 year ...	Mass in lower and outer part of left breast. Small glands.	Usual	No	No	Well, 6 months.
51	About 50	23/7/95	1 year ...	Hardness behind nipple and on outer side. Puckering of skin. Enlarged glands.	Usual	No	No	Well, 6 months.
52	51	29/7/95	18 months	Mass in outer side of left breast. Adherent to skin and pectoralis. Glands.	Usual, and piece of pecteralis major.	Nodules on ribs Jan., 1896; inoperable.		
53	56	21/8/95	2 months ...	Mass in outer part of right breast. Small glands.	Usual	No	No	Well, 5 months.
54	55	3/9/95	18 months	Largish mass in lower part of left breast. Marked glandular enlargement.	Usual	No	No	Well, 4½ months.
55	? 60	3/9/95	2 years ...	Atrophic scirrhus in left breast. Small glands.	Usual, and a good deal of pectoralis major.	No	No	Well, 4½ months.
56	45	26/9/95	6 months ...	Large mass in left breast. Extremely anæmic. Great menorrhagia. Glands: probably metastasis.	Usual, and most of pectoralis major and minor.	No	Healed well, but became gradually weaker, and died 3 months later. Nodules could be felt in abdomen. No doubt cancerous.	
57	59	13/10/95	Some months ...	Diffuse mass above left nipple adherent to skin. Large glands in axilla. Bad case.	Usual	No	No	Well, 3 months.

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TABLE I.—ALL THE CASES OF CANCER OF THE FEMALE BREAST SINCE 1890 (VERIFIED BY MICROSCOPICAL EXAMINATION) IN WHICH THE FIRST OPERATION WAS PERFORMED BY MR. WATSON CHEYNE.

B.—Cases where Three Years have not yet Elapsed since the Operation—Continued.

No.	Age.	Date of operation.	Disease noticed for about—	Seat and extent.	Nature of operation.	Results up to February, 1896. External recurrence.	Metastatic deposit.	No recurrence as yet.
58	55	16/10/95	7 months ...	Tumour in lower and inner quadrant of left breast, adherent to skin and slightly to deeper parts. Enlarged glands.	Usual	No	No	Well, 3 months.
59	47	3/11/95	9 months ...	Small cancer in breast. Small glands.	Usual	No	No	Well, 2½ months.
60	39	28/11/95	6 months ...	Tumour diffuse, especially at upper part of right breast. Numerous glands. Bad case.	Usual	No	No	Well, 2 months.
61	32	5/12/95	3 weeks ...	Small cancer at axillary end of left breast. One enlarged gland. Quite early case. Very bad family history.	Usual	No	No	Well, 1½ months.

Total number of cases where 3 years have not yet elapsed since the operation = 40, of these—
1 died of the operation.
2 have been lost sight of.
27 have had no recurrence as yet.
10 have shown further disease { 6 recurred locally; in one (No. 29) visible disease left behind. 4 had metastatic deposits alone; one of these (No. 56) was really an inoperable case, and in one case (No. 24) I only assume that there was an internal deposit.

In percentages, 67·5 per cent. remained well and 25 per cent. recurred.
The total is 61 cases. In 39, no recurrence = 63 per cent. In 19, recurrences or metastatic deposits = 31 per cent.
Excluding the cases operated on during 1895, which may be said to be too recent, we have 40 cases, of which—
21 remained well = 52 per cent.
16 have shown further signs of cancer = 40 per cent.; one of these (No. 29) was really inoperable, and in one (No. 24) I am not sure whether there was a deposit or not.
2 have been lost sight of.
1 died after operation.

One other interesting calculation is to follow those cases which lived for a year after operation without further sign of cancer (thus showing the chances of a patient where a year passes without recurrence) = 25 (including 2 recurrences about which I am not sure) of these—
20 remained well.
1 died—well after more than 3 years.
4 showed further signs of cancer (Nos. 7, 12, 17, and 20), but in two of these (Nos. 7 and 17) the recurrence may have been noticed before the end of the first year.
This shows that the chance of recurrence is very slight if a patient is absolutely well after a year.

TABLE II.—STATISTICS OF BREAST OPERATIONS.

Operator.	Total cases.	Mortality.	Known recurrences or deaths from metastases.	Cures.	Cases done more than 3 years before the report. Total.	Mortality.	Recurrences (or metastatic deposits).	Cures.
		Per cent.	Per cent.	Per cent.		Per cent.	Per cent.	Per cent.
Fischer (Henry)	147	20	55	8	86	22	59	15
Esmarch (Oldekop)	229	10	44	10	171	13	(?)	14
Before 1863	—	—	—	—	47	—	—	4
After 1863	—	—	—	—	124	—	—	18
Rose (Fischer)...	61	26·3	(?)	6	—	—	—	—
Billroth (Winiwarter)	143	23·7	62	5	89	22	68	9
Trendelenburg (Neuendorff)	97	11	54	2	50	12	68	4
Lücke (Dietrich)	110	7·6	(?)	9	69	8	60	13
Czerny (Schmidt)...	150	4·4	(?)	5	82	6	46	8·5
Krönlein (Horner)	144	4	58	18	121	4	68	20
Küster (Schmidt)	222	10·8	(?)	9	132	14	(?)	15
König (Hildebrand)	135	—	—	17	118	9	61	20
Bergmann (Bichel)	114	4·3	62	11	43	7	62	30
Mitchell Banks	82	12	26·8	21·9	—	—	—	—
Halsted	50	0	43	4 or 8	11	0	54	18–36
Watson Cheyne	61	1·6	31	19·9	21	0	42·8	57

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question of recurrence. As regards cure, I have adopted Volkmann's three year limit, and include under cures all cases which for a period of three years or longer after the operation have had no local recurrence and have shown no sign of internal cancer. Although this three-year period is, as I have already said, not absolutely accurate—for a certain, though small, proportion of patients who have been alive and well at the end of three years have yet died of cancer—nevertheless it is near enough for all practical purposes, and even if we only secured the patient three years of complete freedom from disease such a gain would fully justify the most radical operation. As regards the question of local recurrence it will be seen that a very marked change has been produced by recent methods of operating. Formerly local recurrence was—and even now it is—extremely frequent (Gross puts it at 68·80 per cent., and that is not including the cases which have been lost sight of, probably many of which have also recurred). In considering this question of local recurrence it must also be remembered that up till recently half of these local recurrences took place during the first three months after the operation and over 80 per cent. during the first year. Halsted has drawn a distinction between what he terms local recurrence and regional recurrence. By local recurrence he means recurrence actually in the track or area of the wound, and by regional recurrence he implies recurrence in the neighbourhood or in glandular areas which were not included in the first operation. Such a distinction is, however, extremely difficult to carry out, and it must often be impossible to determine whether a particular nodule has appeared in the track of the former operation or in its immediate vicinity. As a matter of fact, Halsted's regional recurrences imply an imperfect operation just as much as his local recurrences do; they simply mean that the operation has not been sufficiently extensive—no doubt in many cases because it was impossible. Hence I prefer to group both these so-called local and regional recurrences together under the heading of external recurrences and in my own statistics I speak of two sets of recurrences—namely, external recurrences in the wound, its vicinity, or the glands, and internal or metastatic deposits.

Cases of cure of cancer of the breast by operation were very rare in former times, and even at the present moment it is with many not so much a question of cure as one of prolongation of life: if cure happens to take place it is a lucky and a more or less unexpected result. The prolongation of life by the old operation is variously estimated at from eight to thirteen months, but this is really longer than it should be by reason of the fact that some of the patients have lived several years and have thus raised the average. Excluding cases which have passed beyond the three-year limit, I do not think that the prolongation of life by the old imperfect operation is on an average more than from six to eight months, though at the present time where recurrence takes place after the more thorough operation this prolongation seems to be considerably increased.

In looking back over old literature one is very much struck by the great rarity of cure and the very desponding view which surgeons took of the chances of permanent freedom after operation. Velpeau only knew of twenty cases which had been cured, and it is by no means certain that all of these were cases of cancer. Many of the older surgeons state that they have not known a single instance of cure. According to Henry, Benedikt of Breslau only operated eight times in eighteen years, and during the last seventeen years he did not operate upon breast cancer at all; he considered from his own experience and that of others that the chance of cure was so extremely remote that he was not justified in subjecting the patients to the risks of the operation, which were at that time considerable. Von Winiwarter in publishing, in 1878, Billroth's results—viz., eight cures in 143 cases—says that this result is surprisingly good, and that no such favourable statistics had up to that time been published.

I need not recapitulate here the details with regard to various statistics, but I have in Table II. put together results which I have worked out from papers published from various cliniques; and in Table I. I publish all the cases on which I have myself operated since the beginning of 1890, at which time I obtained beds at the hospital and began to operate in this thorough manner. I would lay stress on the fact that my cases have been in no way selected, only cases of the kind previously referred to having been refused operation. Many of them were very advanced and would have been refused operation by those who select their cases, and, I may add, that in all of them I have found disease in the axillary glands. I may say also that all my cases were subjected to microscopical examination, so that there is no question as to the diagnosis in these instances.

With regard to the various statistics which have been published, there is one very curious fallacy which has cost me a great deal of time and trouble to rectify in preparing Table II., and it is this—the total number of cases operated upon is given, and the cures have been calculated in reference to the total number, quite irrespectively of the fact that in some the operations had been quite recently done. For example, taking the first line we have the total number of cases given as 147, and the cures as 8 per cent., but then a very considerable proportion of these cases had been operated on within three years of the publication of the statistics, and none of these could by any possibility have lived three years. It is necessary, therefore, in order to study the results of cure according to the three-year limit, to exclude all those cases in which the operation was done within three years of the publication of the report. Thus, in the first line, we have to exclude no less than 61 cases, and when the number of cures are reckoned in proportion to the remaining 86 cases, we have the percentage at once raised from 8 to 15 per cent. Some exclude the deaths also, but this is not quite fair, as the patient wishes to know the chances, death, &c., included. Their exclusion would make it appear that an individual patient has a much better chance of cure than is really the case. Further, a considerable number of these cases were lost sight of, and most writers exclude them also, but that I have not done, because it is highly probable—certainly from my own experience—that most of the cases of operations on cancer which are lost sight of either die or recur, and if they recur, knowing that the disease is cancer, the patients either decline to consider a second operation or believe that a second operation is hopeless, and, therefore, do not show themselves again. It may be noted in Table II. that the percentages given by me do not correspond with those in the original papers, and that is mainly because the authors excluded the cases lost sight of, and thus got a better percentage result. I think that the second column, which takes into account all the cases which were operated on up to within three years before the publication of the report, represents fairly accurately the proportion of cures in the hands of these particular surgeons.

The study of Table II. fully justifies, I think, what I have said as to the necessity for extensive operation and the advantages to be derived from it. Contrast the older results from Trendelenburg's with 4 per cent. of cures to Fischer's with 15 per cent., or taken altogether an average of about 10 per cent., with the more recent results, varying from 15 per cent. in Küster's practice up to 57 per cent. in my own, and we see that, as the result of greater care in operating, the chances of cure have been largely increased, and the recent results in this table ought to be really better, for a little study of the methods employed by some of the surgeons in the more recent period shows that even there the operations were not so complete as could be wished. The value of even an imperfect improvement is well shown in Esmarch's results, for during the first period up to 1863, the old plan of operating was employed with only 4 per cent. of cures; while afterwards the axilla was cleared out more or less thoroughly, with a jump at once to 18 per cent.—a result more than four times better.

Looking at my own results it will be seen that the effect of thorough removal of the disease is very marked indeed. Taking the cases which have been operated on in the manner described up to three years ago, 21 in number, we have no deaths—12, or 57 per cent. of cures, and 9, or 42·7 per cent., of cases recurring either externally or internally. And if it is objected that 21 is a small number of cases to argue about, I would point out that 12 cures are more than can be shown by many of the older surgeons, although their cases exceed 100. Again, if we study my results from the point of view of the return of the disease, taking in the recent cases, we have a total of 61 cases, with 19, or 31 per cent., of recurrence of metastatic deposits, and among those recurrent cases were two (Nos. 29 and 56) which were really inoperable (in one case, indeed, visible disease being left behind), and which only raise the percentage of failures unnecessarily, and also included in these is one case (No. 24) in which I only assume that there was a metastatic deposit, but have nothing

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but suspicion to go upon. Excluding the two cases (Nos. 29 and 56) as being inoperable cases, as is usually done in the statistical reports I have quoted, we have 59 cases operated on with reasonable hope of cure, with 16 certain recurrences, or 27 per cent. Some of these, it is true, have only been operated on quite recently, and they therefore are not of much value, although it must be remembered that by the older methods local recurrences in half the cases took place within three months of the primary operation. At the same time, let us exclude the cases operated on during the last year (and, as I have previously mentioned, over 80 per cent. of the recurrences take place during the first year after operation), I say excluding the cases operated on during the last year we are left with 40 cases, with, at the very worst, 16, or 40 per cent., internal or external recurrences, and that is including Nos. 24 and 29. Taking the external recurrences alone, we have in the 61 cases only 11 external recurrences (again including No. 29), or possibly 12, giving an average percentage of external recurrences of 18 per cent. or 19 per cent. As regards the 12 cured cases, of course, recurrence may still take place in some, but taking the most unfavourable statements—viz., König's—that 15 per cent. recur even after three years, we would still be left with 9 cures (and that is leaving out also Case 9 which died without recurrence after three years), or 42 per cent. of definite cures, a result far superior, however it is worked out, to that obtained by the ordinary operation.

I have already referred to Halsted's paper (which up to the present has shown the most favourable results as regards recurrences), and he points out that in his 50 cases he has only had 3 local recurrences; but he has also had 8 regional recurrences, and, as I have already said, I think it is much fairer to combine his local and regional recurrences under one heading, "external recurrences," as I have done in my own statistics, and this gives him a percentage of 22 per cent. external recurrences. Contrast the results as regards external recurrence obtained by Halsted (22 per cent.) and myself (18 per cent.) with those of surgeons operating less completely as worked out by Halsted; for example, Billroth, 85 per cent.; Czerny, 62 per cent.; Fischer, 75 per cent.; Gussenbauer, 64 per cent.; Volkmann, 59 per cent., &c.; and the difference between the old imperfect operation and the thorough one becomes most striking.

While the results, as I have pointed out, are steadily improving, the proportion of cases which succumb to cancer is still considerable, and will not, I think, be much reduced till patients and medical men understand that there is a good chance of radical cure from early and thorough operation in mammary cancer, and that a suspicious lump in the breast, especially in elderly women, is not a thing to be watched, for I may say that over 90 per cent. of the swellings of the breast in elderly women are cancerous. Contrary to the usual dictum it is now found that the most favourable of all cases for operation are those of atrophic scirrhus, and the more nearly a cancer approaches the atrophic form, the greater is the chance of permanent cure; indeed, I believe that the malignancy of the cancer in the individual cases has a great deal to do with the result of operation, indeed, possibly more than the early period of the operation, but that, expressed in other terms, is only to say that in the less malignant forms of cancer the disease does not diffuse itself so rapidly or widely, and that by an extensive operation we have a better chance of getting beyond it. A patient who comes with a small tumour which has been noticed for several months, which has not markedly increased in size, and in connexion with which we have only small glands in the axilla, has a much better chance than one who has found a tumour quite recently, which is noticeably enlarging and in which the axillary glands are of considerable size. In the former case the probability of getting beyond the disease is great on account of its slow spread; in the latter the reverse is the case. Hence, while the sooner a cancer of the breast is radically removed the better, one cannot say that the chance of cure is necessarily proportionate to the early period of the operation; in any case, however, the chance of cure of necessity depends on the thoroughness of the operation.

I need not enter at length into the objections which are urged to these thorough operations. They are usually brought forward by those who only operate with the hope of adding a few months to the patients' life, and not of curing the disease. I may, however, only refer to the one question of mortality. Formally the mortality was great and was much increased by opening the axilla, and this was due to sepsis. As that is avoided nowadays, we may safely conclude that when the argument of mortality is brought forward the arguer does not keep his wounds aseptic. Halsted in his 50 cases has had no deaths; in my 61 cases I have had 1 death with which probably the ether had as much to do as the operation. In fact I think shock is practically the only risk which we have to face, and there is no question that the patients do suffer a considerable amount of shock in some cases. On this point I cannot agree with Halsted, who minimises the risk from this cause. In addition to shock, more than one writer has referred to pneumonia as occasionally occurring, possibly from long exposure in a cold room in the case of predisposed individuals, and I had this experience in one case where I performed an extensive operation for recurrence, the primary operation having been done by another surgeon. As regards the question of functional disability which is also sometimes brought forward, there is really comparatively little after-trouble. At first, no doubt, the patient finds that the movement of the arm is very considerably impeded, but as time goes on this becomes more free, and ultimately as a rule the patient is able to do most things which she wishes. After all, even if the arm were permanently useless, it would be a comparatively small price to pay for life. Mr. Butlin is, as is well known, one of the chief opponents in this country of these thorough operations, and since I have written these lectures I have looked into his book on the operative surgery of malignant disease. While I find that some of his views are similar to those at which I have arrived, I have been much startled at several of his dicta, more especially with regard to malignant disease of the breast. Thus he seems to consider it sufficient in some cases where the tumour is quite small to remove it alone without taking away the rest of the breast, because he sees no reason why fresh disease will necessarily break out in the part left behind. But the entire removal of the breast is advocated, not, as Mr. Butlin appears to imagine, so much on account of a degenerative pre-cancerous condition of the rest of the organ, which will subsequently manifest itself by a fresh cancerous growth, as from the purely anatomical reason that the main lymphatic vessels of the breast run towards the nipple, as has been shown by Sappey, before they go on to the axillary glands, and, as the cancer cells very early get into the lymphatic vessels, there is the greatest probability that if the tumour alone is removed cancer cells will be left behind in other parts of the breast. Again, Mr. Butlin does not think that it is necessary to remove the lymphatic glands unless they are noticeably enlarged, nor does he apparently lay any stress on the removal of the intervening lymphatic vessels. That cancer cells do not often stick in the larger lymphatic vessels is quite true, nor do I hold that it is necessary in all parts of the body to remove all the tissue between the primary growth and the nearest glands, but in the case of the breast we have ample evidence of this necessity as regards the lymphatic vessels in the pectoral fascia which are so frequently plugged with cancer cells; and as regards the lymphatic glands they come lower down in the axilla than is generally supposed, and are very apt to be overlooked unless the continuity of the breast and glands is maintained. That in quite early cases these glands may not be infected is, of course, probable; indeed, several instances of cure have occurred where the breast alone has been removed. This, however, very seldom happens, and to refuse to remove the axillary glands because it may not be necessary in a few very exceptional instances is, to my mind, quite illogical. It is surely better that these few patients should lose their axillary glands unnecessarily than that in the case of the great majority disease should be left behind. As a matter of fact, as cases usually come into the surgeon's hands it is very rarely indeed that the disease has not attacked the glands although they may not be noticeably enlarged before the operation, and in every one of my cases some at any rate of the axillary glands have been diseased. Hildebrand states that in 26 out of 135 cases which he publishes from König's clinique no enlarged glands could be felt before the operation. In 13 of these cases the breast alone was removed with 3 cures, while in the other 13 the axilla was also cleared out with 6 cures. Mr. Butlin's conclusion, based on these views, is to the following effect: "We may regard operations for the removal of mammary cancer as successful in effecting a complete cure in rather more than 10 per cent. of all cases treated. I believe that a

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percentage of 12 to 15 is nearer the truth." Contrast this with the 57 per cent. of cures which I have obtained with the more thorough operation.

I have previously mentioned several cases in which I do not consider that a radical operation is advisable, and the question in these is whether anything can be done in the way of prolonging the life of the patient, or of making the period of life that remains to her more comfortable. In some of these cases the patient's life can no doubt be prolonged by excision of the breast alone, or of the axillary glands as well, perhaps for three or four months or even as long as a year, and she may then die of internal disease without suffering so much as she would have done from the local tumour. She should, however, be told that the object of the operation is merely to prolong life, and many women, knowing that, would prefer not to undergo it. In some cases where there is a foul ulcer the patient may be relieved of much pain and trouble by removal of the breast. On the whole, however, I do not see any particular advantage in operating in cases of breast cancer unless with the view of curing the disease, and in cases where it is practically certain that the disease cannot be cured the performance of an operation would depend entirely upon the patient's desire for a short prolongation of life or on the possibility of relieving her of some serious trouble. As a matter of fact, we do not have here, as we have in intestinal cases, any substitute plan to offer which will either relieve the patient materially or give any marked prolongation of life. It is practically either a thorough operation or nothing, and therefore the breast is not a situation in which the so-called careful selection of cases and exclusion of all but simple cases from operation is at all permissible.

THIRTEEN CASES OF STRANGULATED OVARIAN CYSTS.

BY HARRISON CRIPPS, F.R.C.S. ENG.,

ASSISTANT SURGEON TO ST. BARTHOLOMEW'S HOSPITAL AND OPERATOR FOR THE ABDOMINAL SECTIONS IN THE WOMEN'S WARD.

THE frequency with which cysts may become twisted on their pedicle can be gathered from the fact that during three years I have met with thirteen cases in the women's ward at St. Bartholomew's Hospital, and this out of a total of a little over 100 operations for ovariotomy during that period. In the majority of instances the onset of the symptoms suggesting strangulation was sudden, in the others it was rather of a subacute nature. The symptoms of this accident are so suggestive and typical that there ought to be little difficulty in making an accurate diagnosis. The condition, if left unrelieved, though not necessarily fatal, is one of extreme danger, while with timely surgical aid life is almost invariably saved and the patient completely cured of her trouble. The effect of the twist varies somewhat according to its tightness and the nature of the cystic contents. If the twist be only partial the veins, owing to the comparative thinness of their walls, become obstructed, while the arteries still continue to pump blood into the tumour. The effect of this is so to increase the blood-pressure in the tumour and its capsule that the capillaries or thin-walled veins give way, and hæmorrhage takes place both within the tumour and its capsule. In this way a very considerable hæmorrhage may occur, the cysts becoming filled with blood, while a large hæmatoma may be formed in the capsular connective tissue. It would seem, however, that although the stoppage of the circulation at first takes place from compression of the veins, that stasis soon occurs and the blood clots in the supplying arteries as well as in the effluent veins. In some cases from the first the twist is so complete as at once to cut off all blood supply to the tumour. When the twist is sufficiently tight to impede or cut off the blood supply secondary changes occur with more or less rapidity. It would seem from the study of the cases recorded that it is quite possible to have a twist of the pedicle giving rise to sudden and acute symptoms, which nevertheless may relieve itself by again becoming untwisted and allowing the engorged veins to empty themselves. This is what must have occurred in Case 12. The two previous attacks to the one for which the patient was admitted must have been almost certainly due to a twist which was thus relieved before the blood had permanently clotted in the veins. Very soon after a twist has occurred, and probably coincident with total cessation of the circulation within it, nature seems to regard the cyst as a foreign body and makes every effort to surround and encase the tumour with inflammatory exudation. This exudation is of course poured out, not by the dead tumour, but by the living tissues in contact with it. Thus the parietal peritoneum, the intestines, the uterus, bladder, omentum, in fact, every tissue in contact with the tumour, becomes adherent to it by the exudation of plastic lymph. If the tumour happens to be small and its contents simple cystic fluid the cyst wall obtains sufficient nourishment from these adherent structures to maintain its vitality. On the other hand, if the cyst be large, and if its contents are already purulent, or if there be much extravasated blood within it, the efforts of the neighbouring tissues to adhere to and nourish it are ineffectual, and the whole cyst wall falls quickly into a state of gangrene, or it may more slowly soften in parts and give way, allowing the contents to be extravasated. Whether the wall simply becomes gangrenous or whether the contents are extravasated as well acute peritonitis with death is the result.

With regard to diagnosis, the fact that a cyst can become twisted points to its having a long and comparatively narrow pedicle. It must be practically free from adhesions. It cannot be beneath the broad ligament, and must be well out of the pelvis, and it is just this form of tumour which, in an early stage and whilst small, gives so little inconvenience that a patient may be quite unaware of its existence until a sudden onset of a characteristic symptom of twisting (see Case 13). In the majority of cases, however, the patient will be aware that she previously has had a tumour, though it may have caused little trouble. If the twist occur suddenly the symptoms are very characteristic. The woman being previously in comfort is suddenly seized with severe abdominal pain, sometimes sufficient to make her feel faint and generally followed by some vomiting. There is a diffuse tenderness over the whole abdomen. The patient, if she knows that she has previously had a tumour, will generally say that coincident with the attack the tumour seemed to swell up and become harder. On abdominal examination the tumour may be felt of a globular outline, but generally of not a very large size. It is tender on pressure, and has a somewhat firmer feel than the majority of ovarian cysts. It can be moved from side to side as if rocking on a long pedicle, but nevertheless it does not seem to rock independently of the parietal peritoneum to which it is often slightly adherent. Occasionally some creaking can be heard and felt due to the rubbing of inflamed peritoneal surfaces (see Cases 7 and 8). Per vaginam the uterus is probably movable and the tumour, if felt at all, is lying higher up, only resting on the brim of the pelvis. The patient's general condition is one of distress. She suffers from pain and uneasiness, constipation, and not infrequently retention of urine, the pulse is rapid, and the temperature more often raised than not, though here, as in other abdominal cases, the thermometer is an unreliable guide. It has this advantage, however, that with severe general symptoms, if the temperature is raised the prognosis is far more favourable than when the same symptoms are present with a normal or subnormal temperature. The symptoms somewhat resembling those of a twisted cyst may be due to a simple inflamed cyst, a ruptured cyst, an extra-uterine fœtation, or a hæmatocele. It is not possible to diagnose whether a cyst is inflamed from a twist or other causes, nor is it important, for in either case an operation should be undertaken. If the symptoms be due to the rupture of a cyst there will be the same sudden symptoms as if a twist had occurred, but there is often this important difference, that the outline of a twisted cyst is well defined, feels firm, and the tumour is somewhat larger than previously, while in a ruptured cyst the outline of a tumour becomes indistinct and feels flaccid, is smaller, or even disappears, whilst there is dulness in the flanks from gravitation of the extravasated contents to these regions. When the symptoms are due to a ruptured extra-uterine fœtation there will often be a history of missed, or at least irregular, periods. There may be suggestive signs about the breasts. The pain is more pronounced, while it is almost invariably accompanied by fainting and other symptoms of collapse. The anæmic condition of the tissues, soft, rapid pulse, and sighing respiration suggest bleeding, while an abdominal examination shows there is no definite tumour.

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These symptoms collectively can scarcely be mistaken for a twisted cyst On the other hand, a limited hæmatocele into the broad ligament or into Douglas's pouch may closely resemble a twisted cyst. There was such a case recently in the Martha Ward at St. Bartholomew's Hospital. In this instance a tumour was supposed to have existed for some time, but acute symptoms had only been present for three weeks. A hard, firm tumour could be felt rising half-way to the umbilicus, well defined and very tender, but the uterus was fixed and the tumour extended down into Douglas's pouch. On operating the tumour was found to consist of blood clots the size of a child's head in Douglas's pouch, spreading upwards in a globular form, being roofed in by inherent omentum and intestines. In such a case the tumour in Douglas's pouch and the fixing of the uterus should have suggested the nature of the case. If a twisted cyst is not diagnosed early the symptoms may rapidly pass on into those of acute peritonitis, and owing to the distension of the intestines disguising the cyst the diagnosis is obscure.

As to treatment, this, fortunately, is very simple, for directly the nature of the case is suspected the abdomen should be opened and the cyst removed. The fact that the tumour has become twisted shows that it has a long pedicle, that it is well out of the pelvis, and can have but slight adhesions, conditions which make the removal of any ovarian cyst particularly favourable. What the surgeon is anxious about is that the operation should be undertaken before the occurrence of acute peritonitis. Should this have occurred it is difficult to save the patient. In such a case, if not actually moribund, the abdomen, after removal of the tumour, should be thoroughly flushed and subsequently drained. Death occurred in only one of the cases recorded. In this instance the delay had been too long, the cyst had burst, and at the time of the operation there was acute general peritonitis. The majority of the cases were admitted under the care of my colleagues, Dr. Champneys and Dr. Griffith, and were transferred to me for operation.

CASE 1.—A woman aged forty-four years who was admitted to hospital in August, 1892. For seven years she had noticed a swelling in the abdomen, which during the last few months had got considerably larger, but it did not give her much pain or inconvenience. On Aug. 18th, whilst washing, she was suddenly seized with acute pain in the abdomen which made her feel faint. From that time till she was admitted, four days later, she had been ill with considerable pain and for the last two days there had been some vomiting. On admission she was found to be much collapsed, with a scarcely perceptible pulse at the wrist. The abdomen was opened and a large multilocular cyst found with slight recent adhesions all over the surface to the parietes. Here and there some yellow lymph on the surface was found, and also in one or two places on the intestines. The tumour was removed and the abdominal cavity washed, but the patient practically never came out from the shock from which she was suffering prior to the operation and died a few hours later. The cyst was twisted one and a half times on its axis.

CASE 2.—A woman aged twenty-four years who was admitted to hospital in February, 1893. She had noticed a lump in her abdomen for three or four months, but it had given her very little pain, and she had seen her last period a week ago, since which time she had had great pain and she thought the tumour had got somewhat larger. On admission there was a tumour extending as high as the costal cartilages on either side, feeling very tight, with considerable tenderness on pressure. The patient's temperature was somewhat raised and she had a pulse of 120 but of fair volume. On opening the abdomen the tumour proved to be a large multilocular cyst with one complete twist in its pedicle. It was adherent by recent adhesions to the parietes and omentum. After removal it was found that there had been considerable hæmorrhage into the cyst and some small hæmorrhagic nodules in the cyst wall. The abdominal cavity was flushed and the drainage tube left in for a few days. The patient recovered.

CASE 3.—A woman aged forty-one years, who was admitted to hospital in March, 1893. She had been in the hospital four years previously suffering from an abdominal tumour which then caused some difficulty in micturition. Since that time, although the tumour had increased somewhat in size, it had given her no pain, and she was able to do her work. A week previously abdominal pain suddenly came on and was followed by constipation. She had no vomiting and the pain was of a spasmodic character; the abdomen was extremely tender. On examination a fluctuating swelling could be felt—dull on superficial percussion, resonant on deep percussion—occupying the lower half of the abdomen. She could scarcely bear pressure, all the parts being exquisitely tender. The temperature was not raised, but the pulse was quick. On opening the abdomen a broad ligament cyst on the right side was found with one and a half complete twists at its pedicle. It contained blood-stained fluid, and there were some clots situated between the cyst wall and the peritoneum. The patient recovered.

CASE 4.—A woman aged twenty-five years, who was admitted to hospital in February, 1894. She had noticed a tumour for nearly a year and a half; at one time it got very much smaller, but it increased again six months ago. She thought it had increased considerably during the last two months, and for five weeks she had had a considerable amount of pain. On examination a large egg-shaped, very tender tumour could be felt, extending as low as Poupart's ligament on each side and up to the costal arches. On opening the abdomen the tumour was found to contain a dirty red-coloured fluid, about ten pints of which was drawn off, consisting largely of blood. The tumour was found to have a complete turn from left to right at its pedicle. There were also some old hæmorrhages in the sac of the cyst. The patient was seriously ill for some days after the operation with a good deal of vomiting and hiccough, but ultimately made a good recovery.

CASE 5.—A woman aged forty-one years, who was admitted to hospital in February, 1894. She had noticed the tumour for about a year, but it did not give her much trouble till four days previously, when whilst at work she was attacked by severe pain described as "labour pains." These pains continued more or less ever since, and she had a good deal of vomiting, and said the tumour felt much harder and a little larger than it was before the attack. On examination in the right half of the abdomen, extending about two inches above the umbilicus, was a firm, elastic tumour, very tender on pressure and giving the idea of tightly compressed fluid. Per vaginam the tumour could not be felt. On opening the abdomen a considerable quantity of blood-stained fluid escaped from the peritoneal cavity. A large cyst, dark-coloured on the surface, then came into view. It was found that it had one complete twist at the pedicle. There was no adhesion anteriorly, but on raising the tumour the sigmoid flexure of the colon was found to be somewhat firmly fixed to it on the left side by old adhesions, which took some trouble to separate. No flushing or drainage was employed. The patient recovered.

CASE 6.—A woman aged forty-four years, who was admitted to hospital in March, 1894. She stated that she had noticed her abdomen getting larger for the last year and a half, but it gave her no trouble till a month previously, when for the first time she had pain. The pain had continued more or less severe since, and during this time she had many attacks of retention of urine. The abdomen was much distended by an elastic and very tender tumour rising to the costal arches. Per vaginam the tumour could just be felt lying on the brim of the pelvis. On opening the abdomen a multilocular cyst of the left ovary was found. It was slightly dark in colour on the surface and had little more than a complete twist at the pedicle. The main cyst contained a dark-coloured fluid of the consistency of glycerine. Many of the secondary cysts, however, seemed to be distended by a simple blood-clot. There were a few recent adhesions to the parietal peritoneum. Owing to a considerable amount of the fluid escaping into the peritoneal cavity it was well flushed with water, but no drainage was used. The patient recovered.

CASE 7.—A woman aged twenty-two years, who was admitted to hospital in March, 1894. She had noticed her abdomen getting large for a twelvemonth, and had had occasionally slight pain, but nothing to speak of. Two days previously she had a sudden attack of violent pain lasting four or five hours, and she vomited two or three times. The pain then got better, but continued in a modified form till her admission. On admission she had a good pulse and a temperature of 101° F. The lower abdomen was occupied by a spherical tumour arising within three inches of the ensiform cartilage. It felt densely hard, not quite globular in outline, and with one big projection on its left side. A well-marked crepitus could be felt and heard over its surface when she took a deep breath. Per vaginam, the tumour could just be felt lying on the brim of the pelvis. On opening the abdomen the cyst was found to be multilocular, containing a great

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deal of apparently solid growth which, however, afterwards turned out to be chiefly blood-clot. It could not be reduced by tapping, so the incision was enlarged to eight inches, the whole tumour being turned out. It was found to have one complete twist at the pedicle. No flushing or drainage were employed. The patient recovered. A year later I had the following interesting letter kindly written to me by Dr. W. E. Porter. He said: "The girl aged twenty-two years, upon whom you operated in March, 1894, was delivered of a fine, healthy child on March 15th, 1895, that is, just a year after the operation, and she made a very good recovery. I was anxious about her because eighteen months ago I attended a lady who had been operated upon ten years previously for ovariotomy, and who some three months before her full term of pregnancy was finished died suddenly of internal hæmorrhage, the result, probably, of the tearing of some of the old adhesions."

CASE 8.—A woman aged fifty-eight years, who was admitted to hospital at the end of March, 1894. For the last six or eight months she had noticed a hard lump in the right iliac fossa, but it had never given her much trouble. Three weeks ago, however, she had very severe pain in the neighbourhood of the tumour and noticed that the tumour seemed to have increased slightly in size and had become very hard. On admission, the temperature was not raised, and she had a good pulse. On examining the abdomen a tumour extending to the costal arches and feeling very firm was found. It was very irregular on the surface and well-marked crepitus could be heard and felt over portions of the tumour. Per vaginam a part of the tumour could be felt lying behind the uterus. The abdomen was opened by a four-inch incision, and a moderate amount of blood-stained fluid escaped from the peritoneal cavity. On the surface of the tumour was a small quantity of lymph in places. The tumour was composed of many small cysts. A trocar was put in, but practically no fluid came out. The incision was then prolonged and the tumour removed entire. It was found on section that most of the secondary cysts contained blood. The abdominal cavity was flushed but not drained. The patient recovered.

CASE 9.—A woman aged thirty-eight years, who was admitted to hospital in July, 1894. She had noticed herself getting larger for nearly two years, but much more rapidly during the last three months. She was a healthy-looking woman, and had not complained of much pain. On examination the abdomen was found to be distended by an irregular tumour, extending to midway between the ensiform cartilage and the umbilicus. The consistency varied in different parts, some being elastic and apparently fluctuating, while others were quite firm and hard. Per vaginam the sound passed two inches and a half and the uterus was fairly movable; the tumour could be felt lying on the brim of the pelvis. On opening the abdomen the tumour proved to be a multilocular ovarian cyst in some portion of which were hard nodules. It was slightly œdematous, but there was no hæmorrhage into it or into its capsule; it was twisted half a turn to the left. The tumour consisted of the right ovary. There were no adhesions. No irrigation or drainage was employed. The patient recovered.

CASE 10.—A woman aged twenty-five years, who was admitted to hospital in August, 1894. About a year ago she first noticed sharp pain in the groin. On admission the patient did not feel ill, but there was much tenderness over the abdomen. Examination showed a tumour extending half way between the pubes and the umbilicus; it was slightly movable and gave an elastic sensation. Per vaginam the tumour could be felt high up in the utero-vesical pouch; the sound passed three and a half inches. On opening the abdomen the tumour proved to be a dermoid cyst of the left ovary. There were no adhesions. It was found to have had one and a half complete turns of the pedicle. On examining it after removal it contained large quantities of sebaceous material, hair, teeth, and bones, but no blood. No irrigation or drainage was employed. The patient recovered.

CASE 11.—A woman aged thirty-one years, who was admitted to hospital in August, 1894. She noticed after her last confinement, thirteen months previously, that the abdomen did not seem to regain its natural size, and during the last two or three months had been getting considerably larger, but she had had no pain and no trouble with the urine, though she had been getting thinner. On admission the abdomen was found uniformly distended by a tumour extending to within two fingers' breadth of the costal arches on either side. Some portions of the tumour felt hard and others comparatively soft, but owing to a good deal of fat in the abdominal walls it was not easy to determine the exact consistency. Per vaginam, the os was found dilated, and would admit the finger. The uterus was freely movable. No part of the tumour could be found in the pelvis. The sound passed two inches and a half. The tumour proved to be a multilocular cyst of the left ovary. Its contents were very thick and would not run through the trocar. A certain amount of the contents were extravasated into the abdominal cavity during the removal of the tumour. There was half a twist of the pedicle. The abdomen was well irrigated to wash out the material that had escaped during the extraction of the cyst. No drainage was used. The patient recovered. An interesting point about this case was the loss of one of the sponges. On counting the sponges after the operation it was found that one of them, a thin flat sponge five inches in diameter, was missing. A thorough search in every direction was made for it without result. It could not be found in the abdominal cavity. The nurse then stated that during the operation she observed at one time that the water did not run very freely away from the basin where she was washing the sponges. The opening at the bottom of the basin was only three-fourths of an inch in diameter, and it did not look as if it was possible for a sponge to pass through. However, the plumber was sent for, and, the force pump being used, the sponge was expelled into the trap at the base of the building. It was almost impossible to conceive that this large sponge could pass through so small an opening. Indeed, as we endeavoured to force it down subsequently it was quite impossible to get it through, but when smeared with some of the mucus of the tumour it was possible to pass it through the hole at the bottom of the basin with comparative ease. Since this accident a fine wire grating is put down the hole in the bottom of the basin and I never allow any water to be thrown away except through this, so that it is absolutely impossible that such an accident should occur again.

CASE 12.—A woman aged thirty-three years who was admitted to hospital in October, 1894. Three weeks after her last confinement, thirteen months previously, she was suddenly seized with severe abdominal pain, but in a couple of days she was all right again. Since that time she has had four or five similar attacks, lasting from a few hours till a couple of days. She had also noticed during the whole of this time a swelling in her abdomen. She was very clear that at the time of these attacks the swelling appeared to get larger and was very tender. She came to the hospital during one of these attacks suffering intense pain, and was at once admitted to the Martha Ward. On examining the abdomen the tumour was found to be about two inches above the umbilicus. It was slightly displaceable from side to side and rather tender upon pressure. Per vaginam high up a rounded swelling could be felt in front of the uterus. Bimanually a tumour could be felt which apparently was about the size of a six months pregnancy. On opening the abdomen a tense, dark-bluish, grey tumour presented which was brought out entire after enlarging the wound. The pedicle and tumour were free from adhesions. It was found twisted one and a half times in the same direction as a corkscrew. Some fluid from a cyst in it had ruptured and escaped into the peritoneal cavity, which was thoroughly washed out with sterilised water. The wound was entirely closed without drainage. The tumour proved to be a multilocular cyst of the right ovary which was twisted on its pedicle. It contained a large quantity of dark, chocolate-coloured blood. There were several secondary cysts all containing blood-clot or fluid blood. The patient recovered.

CASE 13.—This patient was a woman aged thirty-eight years who was admitted to hospital in April, 1895. She had eleven children, the youngest born fifteen months previously, which she was still suckling. She said she had never got to her proper size since her last confinement. Six months ago she had some pain in the left groin, and had loss of flesh and felt ill since. Fourteen days before admission she was suddenly seized with severe pain in the left side, and for the first time she then noticed a lump in this position. On admission there was a fluctuating tumour rather firm extending midway to the ensiform cartilage. It was altogether above the pelvis. Per vaginam the cervix was very soft and the vagina mauve in colour, and an impulse was easily conveyed from the tumour to the cervix, and there was some doubt as to whether the patient might not be pregnant. The evening before the operation the abdomen was noticed to have lost a good deal of its distension, the tumour being much more ill-defined than it was at

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first. An incision was made in the middle line from the umbilicus downwards for three inches, which was subsequently enlarged a couple of inches downwards. On opening the peritoneal cavity a considerable quantity of muco-purulent fluid escaped. This was found to be the contents of a ruptured cyst. The whole tumour, which was growing from the left ovary, was brought forward and was found to be twisted one complete turn at its pedicle. The main mass was pulled out of the abdominal cavity, the rent in the cyst enlarged, and the cavity emptied, the secondary cysts also being emptied from the same opening. The pedicle was then transfixed in the usual way. The abdominal cavity was very thoroughly washed out with sterilised water. There was no drainage. The patient recovered.

A RECORD OF THE COMMON SORE-THROATS OCCURRING AMONGST 400 ADOLESCENTS DURING A PERIOD OF TWENTY-FIVE YEARS.

BY CLEMENT DUKES, M.D., B.S. LOND.,
PHYSICIAN TO RUGBY SCHOOL AND SENIOR PHYSICIAN TO RUGBY HOSPITAL.

IT seems to me to be the duty of those members of the profession who occupy positions where exceptional opportunities occur to recount their facts from time to time. With this feeling in view I place on record these few observations. It is necessary to explain a little in detail the system of work in force so as to ensure the value of the facts. During the whole of the twenty-five years I have been physician to the Rugby School I have visited with the utmost regularity every boarding-house where the members of the school reside, starting at exactly the same time (8.15 A.M.) every week-day during every term, and on Sundays at 8.45 A.M. The members of the school are housed in nine boarding-houses, and the numbers, varying from year to year, give an average of just over 400; at the present moment they are 500. In consequence of this regularity and by the use of a little moral persuasion, both with regard to each house-matron and the boys themselves, I am usually able to see the beginnings of all illnesses; in fact, I doubt whether anyone, except where the same system is in force, has ever had such a unique opportunity, amongst such a number, and extending over so many years. I am continually instilling into the matrons and the boys the importance of my seeing invalids in the very earliest stage of not feeling well, hours before one can definitely diagnose the ailment which is causing the discomfort. In this way I am able not only to learn the symptoms of the onset of disease, but, a circumstance of still greater moment to the individual patient, to place him early under the most favourable conditions as regards himself, and to isolate him if need be for the protection of school-fellows. In my very early days of office here I recognised the importance of knowing the condition of the throat in the young, it being involved in so many illnesses; consequently the habit arose intuitively of looking at the throat of every boy who expressed himself as not feeling well, without waiting for any complaint from him concerning it. And whenever I noticed the least deviation from a healthy appearance, however trivial, recognising the fact that everything has a beginning, strict isolation was enforced, and he was kept away from the healthy until quite recovered. In this way all ailments attended with sore-throat, some of them of the greatest moment to the young, have been prevented from spreading. I scarcely need to point out that it is the first cases that one requires to be always on the look out for and to isolate if the diseases are to be limited in extent, as I think I shall prove that they can be. On inspecting the throat in the young in the very earliest stage of its abnormality certain common conditions are discovered which gradually assume the various forms typical of recognised diseases. And I see these throats and isolate them often long before a diagnosis is possible. When asked, as I frequently am, what is the matter with the throat I am only able to plead ignorance; but I strive to impress the fact upon my inquisitors that when I am able to diagnose the case at first sight I have secured it far too late for the welfare of the individual and for the protection of other members of the school.

1. *Inflammatory sore-throats.*—The first stage of all the common sore-throats, which are termed "tonsillitis," is that the membrane of the fauces generally appears smooth, dry, glistening, and as if all secretion and the superficial layer of the mucous membrane had been scraped off and the surface polished. Many throats under treatment proceed no further than this stage. In the next condition this superficial layer of the mucous membrane is swollen, which causes it to assume a dusky-red velvet appearance, and this also may proceed no further. This is succeeded in a large proportion of cases by swelling of the tonsils, which gradually become covered with minute isolated white dots, and which are occasioned by an excess of the normal secretion, owing to the inflammation, from the follicles of the tonsils. This secretion in certain cases, and these individuals usually have this kind of throat whenever they take cold, becomes so excessive as not only to appear at the orifices of the follicles, but the white spots join one another until the surface of the tonsil becomes covered with a thick, soft, ashy grey, dirty-looking membrane, but which bears no more relation to diphtheria than chicken-pox does to small-pox. The same individual invariably has the same kind of inflammatory throat, and whenever he takes cold it is in the form of, or accompanied by, a sore-throat. Some of these boys have a sore-throat at least once a term, and as some remain at school several years the same individual is accounted for many times over in my list of cases. In the last phase of these cases of tonsillitis the inflammation and swelling—often after a prior subsidence, so as to seem almost like a recrudescence—increase, extend, and involve the soft palate, and a quinsy is formed. I regard all these forms of tonsillitis as infectious in the young, and they spread in the same way, but not to the same extent, as common colds.

2. *Septic sore-throats.*—As our water-supply, house drainage, and town drainage are good, the septic sore-throats which arise from defects in these arrangements do not come under my notice in relation with the school. I may mention that I am very importunate over the question of flushing drains and emptying drinking-water cisterns and filters before the reassembling of the school after each vacation. As further evidence of the sanitary state of the school premises, I would lay stress upon the fact that during twenty-five years there have only been four cases of typhoid fever in the school, three of which I traced to their origin. One occurred in 1871, its origin was untraced; another appeared in 1877, from a recognised defective drain which was not remedied as soon as it should have been; another occurred in 1887, through an enthusiastic naturalist being allowed by his parent as a great treat to have a day in Cambridgeshire prior to his return to school to catch swallow-tail butterflies, and, being very tired and parched with thirst, he lay on his stomach and drank from a ditch, having only just time to catch his train; the last, which occurred in 1889 from eating oysters, was, unfortunately, fatal.

3. *The sore-throat of scarlet fever* in its initial stage consists of a diffuse, dull, brick-red appearance of the mucous membrane of the fauces—in fact, it is a diffuse rash on the mucous membrane similar to that which occurs subsequently on the skin. It commences at, or at all events is most visible on, the wings of the soft palate extending to the tip of the uvula, but it involves the whole of the mucous membrane of the fauces. In a large proportion of cases it begins and ends in this, though in many it progresses to every phase of ulceration, which alone is sometimes difficult to assign to scarlet fever; but the character of the rash, together with the peeling tongue on the fourth day, leave little doubt as to the diagnosis. It is the slight sore-throat accompanied by merely a transient rash which causes the main difficulty in diagnosis.

4. *The sore-throat of diphtheria.*—At the onset there is usually a dark redness and swelling of the tonsils and the fauces generally, with very marked œdema of the uvula, which appearances are quite undistinguishable from acute tonsillitis. Hence the necessity of at once isolating all cases of tonsillitis, as no one can possibly be sure what form of sore throat it will prove to be. Subsequently the whole, or part, of the fauces becomes covered with a greyish secretion, sometimes assuming the character of a dense membrane like wet wash leather, which arises in patches, and rarely in the small white regular dots which coalesce into a patch incidental to tonsillitis. These patches spread and may become continuous involving the whole of the fauces.

5. *The sore-throat of varicella* is occasioned by spots on the mouth and pharynx similar to those on the skin, and they

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often greatly resemble the small ulcers common to stomatitis, from which they are distinguishable by the eruption on the skin.

6. *The sore-throat of epidemic roseola* (rötheln) resembles closely the early stage of the throat of scarlet fever, but it is accompanied by very early enlargement of the posterior cervical and other glands. There is no peeling of the tongue on the fourth day.

Table 1, showing the Numbers of the Common Sore-throats occurring amongst 400 Adolescents during Twenty-five Years.

Years.	Inflammatory.	Scarlet fever.	Diphtheria.
1871...	4	—	—
1872...	11	1	—
1873...	1	—	—
1874...	9	10	—
1875...	5	2	—
1876...	4	—	—
1877...	14	6	—
1878...	2	—	—
1879...	5	—	—
1880...	32	6	—
1881...	7	17	—
1882...	20	—	—
1883...	34	—	2
1884...	22	5	1
1885...	42	3	—
1886...	27	1	—
1887...	51	1	—
1888...	17	—	—
1889...	10	7	—
1890...	28	—	—
1891...	11	—	—
1892...	29	—	—
1893	33	—	—
1894...	14	2	—
1895...	18	10	—
	450	71	3

Table 2, showing the Common Sore-throats occurring amongst 400 Adolescents from Jan. 1st, 1871, to Dec. 31st, 1895.

Sore-throats.	Total numbers.	Average number of cases per annum.	Per cent. per annum.
Inflammatory	450	18·00	4·50
Scarlet Fever	71	2·84	0·71
Diphtheria	3	0·12	0·03

Rugby.

CASE OF

FUNCTIONAL APHONIA IN MAN; TREATMENT, &c.; WITH SPECIAL REFERENCE TO SO-CALLED VARICOSE VEINS AT THE BASE OF THE TONGUE.

BY HERBERT TILLEY, M.D., B.S. LOND.,
ASSISTANT SURGEON TO THE LONDON THROAT HOSPITAL.

THE following case which has recently come under my notice is interesting from a clinical point of view as illustrating a condition as uncommon in the male sex as it is common in the female. The comparative rarity of the affection in man accounts, I think, for its real nature being at first overlooked in this case and also its suggested etiology and the treatment advised for its relief. It was said to be due to varicose veins at the base of the tongue, the appropriate treatment being cauterisation by means of the galvano-cautery, a pathology and treatment which, I believe, emanate from an institution in London where diseases of the ear, nose, and throat receive special attention, and, moreover, a condition which is supposed by those who believe in its frequency to be at the root of many laryngeal and pharyngeal symptoms. This case with the two others cited below are only samples of many others with which I have had to deal, and will perhaps best furnish my reason for doubting the existence of such a condition as I have referred to.

CASE 1.—A man aged thirty-three years, married, was brought to me by his medical attendant on Nov. 30th, 1895, complaining of hoarseness, which came on in June, 1894, and had lasted ever since. He had conducted a Sunday morning service in his church and felt his throat considerably fatigued at the close of it; the same afternoon he addressed a school, when his voice left him completely and his conversation was afterwards carried on in a whisper. He never had any pain, but after speaking for some time he experienced a kind of irritation in the larynx. Some four months after the onset of hoarseness he consulted a specialist, and was told he had varicose veins at the base of the tongue, which produced congestion of the vocal cords. The base of his tongue was cauterised (cocaine being first applied), but without any relief. He was then advised to have his turbinate bones removed, which he declined, and he returned to his early home in Brussels, where he consulted an expert in laryngeal diseases, who told him it was a form of throat paralysis which would get better and prescribed a tonic. On Nov. 30th, 1895, I saw the patient, a tall, anæmic man, who detailed his history with a feeble voice, smiling nervously all the time. The tongue, lips, and teeth seemed more especially the speech-producing organs, effecting a hoarseness which I think characterises these functional cases, compared with those where organic disease of the larynx produces the aphonia. On laryngoscopic examination attempted phonation failed to bring the vocal cords to the middle line, an elliptical space being left between them. They were not congested. There were no enlarged veins at the base of the tongue or any excess of lymphoid tissue. The nasal cavities were perfectly free and he had always breathed freely through his nose. Treatment was as follows. By means of a faradic battery and Mackenzie's intra-laryngeal electrode I passed a strong spark from the secondary coil through the larynx, when the voice immediately came back. He then laughed uncontrollably for at least ten minutes. I prescribed a pill of strychnia and valerian, and on Jan. 20th, 1896, he wrote to say that his voice, though occasionally weak, had never left him, and "last Sunday I addressed the school with the greatest ease." As regards the treatment of this case it may be said the cautery to the base of the tongue was merely used to produce a shock; but I do not think this was the case because he was told it would be painless, and cocaine was applied to make it so.

CASE 2.—A man aged thirty-eight years consulted a specialist for hoarseness of three weeks' duration. He was told he had varicose veins at the base of the tongue which needed the cautery, and that the condition caused the hoarseness. He declined to have anything done, and I saw him four days afterwards, when the veins had evidently temporarily disappeared, but there was a great deal of laryngeal and pharyngeal congestion. I advised him to take a further opinion of an eminent expert, who also failed to find any varicose veins. The patient being of gouty habit and a free liver I ordered him horse exercise and a rigid diet, and in a fortnight all his throat symptoms had disappeared.

CASE 3.—This patient was a schoolmaster aged forty-one years, who consulted me last summer for throat fatigue after using his voice for a short time. After teaching for about an hour his voice practically left him and was too painful to use. On examination the pharynx was much congested with enlarged lateral pharyngeal bands (pharyngitis lateralis hypertrophica). The base of the tongue was perfectly normal; only a few small veins were to be seen. He had a deflection of the nasal septum to the right side. His parents had had gout and he had a small tophus in the right pinna. I advised constitutional treatment—outdoor exercise &c.—and advised him to have some lessons in voice production, as his method of voice-using was eminently faulty. He sought further advice, consulting a laryngologist, who suggested varicose veins. The cautery treatment was adopted, which was followed by acute inflammation around

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the base of the tongue and nearly a fortnight in bed. He returned to me five weeks later and significantly said, "By the way, do you really think I had any varicose veins in my tongue? I think I'm worse than I was before."

From other quarters I hear the same story, proving that my experience of these cases is not unique, and one is led to ask, "Does such a condition exist, and, if so, with what frequency?" For some four years at special institutions for the treatment of diseases of the throat, ear, and nose I have been looking for a genuine case of varicose veins in the base of the tongue. I have seen congestion and fulness of the veins, and considering the amount of lymphoid tissue present in this situation, its occasional hypertrophy producing marked enlargement (lingual tonsils) and even tumours of such size as to imperil life, as in the case shown last year at the Laryngological Society by Dr. Baber—considering these facts one would expect to find a condition of venous engorgement sometimes, but even this I venture to say is not common. Again, would one expect to find a true varicose condition in such a situation, where the venous blood pressure must be so slight, and, if so, what causes it?

Welbeck-street, W.

TWO CASES OF CHROMIDROSIS.

BY F. W. A. STOTT, M.A., M.B. OXON.

A FEW months ago I was called upon to see the following interesting case.

The patient was a man about forty years of age who had noticed about three weeks previously that his underlinen always became stained with a pink colour after a few hours' wear and that the colouring was more extensive and deeper after he had been perspiring freely. He had also noticed that his pillow was similarly coloured on rising in the morning. He took frequent hot baths with a view of removing the colour from his skin, but without the desired effect. This went on for about a week, when his son, a young man engaged at the same place of business as his father, commenced to exhibit the same symptom. As they were wearing no coloured material and could not account for the phenomenon they naturally became alarmed and sought medical advice. The elder patient (I did not see the younger) showed me his collar, cuffs, and shirt, which were all stained with a beautiful pink (not the colour of blood). The stain was most marked upon the collar and neck-band and upon those parts of the shirt which would naturally come into contact with the nates and scrotum, but, singularly enough, and I take it as a significant fact, the perspiration of the axillæ and of those parts of the body which were covered by an undervest of unbleached wool showed no colour, only those parts being affected which would most frequently come into contact with unwashed hands. I was told that the colour could not be washed out with soap and water. I asked for some of the stained articles with the view of trying to extract the colouring matter and of making a spectroscopic examination, but this was either forgotten or disregarded, and a rare opportunity of making an interesting observation was lost. I closely examined the skin, but could find no traces of colouring matter upon it, and, so far as the eye could see, it was in a perfectly normal condition. I took some sterilised tubes and made three inoculations upon potato media—namely, (1) from the back of the neck; (2) from the scrotum; and (3) from the upper arm where there was no stain. In four days I was delighted to find that one of my inoculations (the one from the scrotum) had been successful and that I had obtained a coloured growth. It presented the appearance of a bead of pink coral, not very deep in shade but rather pale. As this was an impure growth, some other moulds being present, I made a second inoculation from the pink portion upon potato, and succeeded in obtaining a pure cultivation of a pink torula. From my observations of the growth of these cultures I found that they seemed to grow best at a temperature of about 65° F., the intensity of the colour varying inversely with the temperature—i.e., the higher the temperature the paler the colour, and *vice versâ*. At 32° the colour became a deep red. They required a considerable amount of moisture.

I sent the original tube to Professor Sheridan Delépine of Owens College, Manchester, who succeeded in obtaining from it the red organism which I had described to him, and who kindly sent me one of his cultivations which exactly resembled mine except that they were rather paler in colour. He also sent me a specimen mounted for the microscope. He has described a case of "black sweating" in which the organism was also a torula. Professor Dreschfeld says he has seen several cases of red sweating, but they are very rare; in the majority of his cases the skin of the back of the neck and between the shoulders was most affected. In the first instance, before making cultivations, I thought that I had to do with the bacillus prodigiosus, never having heard or read of these symptoms being produced by a red torula, and up to the present time I have been unable to obtain evidence of anyone describing a red torula as a cause of red sweating. I should be glad of further information from anyone who has observed any of these cases and of literature bearing upon the subject. I believe from the above two cases that it is a disease of the sweat glands and ducts, that it is parasitic and infective. The organism requires a soil peculiarly suited to its growth—for instance, the wife and other members of the family, with the exception of the youth, were quite unaffected. Whatever this condition of the skin is which is favourable to the growth of these organisms it must be extremely rare. I am inclined to think that the organisms are conveyed to the parts affected by the hands, but from what source I am unable to say. In these cases one cannot help looking to the occupation of the patient for a suggestion as to the possible source of infection. Is it conceivable that in the case of these two patients the handling of coins or of paper money (which occurred in the course of their business) had anything to do with the infection?

Since writing the above notes I have heard that the younger of the patients had another attack, some months after the first, but not quite so marked. The disease causes no more inconvenience than the staining of the linen by the sweat from the parts affected.

Blackpool.

CRITICAL REMARKS UPON THE NAUHEIM TREATMENT OF HEART DISEASE.

BY GEORGE HERSCHELL, M.D. LOND.,

PHYSICIAN TO THE NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, SOHO-SQUARE.

AT the present juncture, when this method of treating diseases of the heart bids fair to be extensively practised, it may not be out of place to say a few words of very serious warning to those who are disposed to accept it at the valuation of its introducers. I think that we are wasting our time in discussing the manner in which the Nauheim baths and movements produce their remedial effects when we have nothing beyond the bare assertion of those who are working the system that such effects are really produced at all. We may, I think, employ our time more profitably in examining carefully and critically some of the statements which are made in connexion with the treatment.

It is claimed that it reduces the area of cardiac dulness, and the published writings on the subject are illustrated with diagrams purporting to be absolute reproductions to scale of the different positions assumed by the upper edge of this dulness from day to day under the treatment. On examining such a diagram we observe that the successive positions given for the edge of cardiac dulness are frequently distant from each other only a fraction of an inch. Our first feeling is one of admiration for the skill of the percussor; our next is one of absolute scepticism; and the more expert we may be ourselves the more incredulous shall we be. I am sure that my readers will agree with me that whilst it is quite possible to make out approximately the extent of relative dulness of the heart, with a variable error of, say, half an inch, anything much more accurate is impracticable; for we are not considering the superficial dulness of the heart—the dulness of the small part uncovered by lung—but the recognition of the first alteration of pitch of the note obtained by forcible percussion, when the edge of the heart interferes with the length of the vibrations through the thorax. The estimation of this precise point depending on the personal equation of the operator, the amount of pressure exerted on the chest wall by the pleximeter finger, and upon the force of the blow, hardly any two men will get the same

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result on the same chest; and the same man will make out the position of the edge of relative dulness at a different place on successive examinations. This is no mere assertion of mine. I have tested it again and again, and anyone can prove it for himself. All he has to do is to blindfold himself and make out upon a given case the upper limit of relative cardiac dulness, marking it upon the surface of the chest with an aniline pencil. Let him do this several times in succession at intervals of a few minutes marking it each time. When he removes the bandage from his eyes he will find that the result is a series of lines at short distances from each other upon the chest, some of them intersecting the others, and exactly resembling one of the aforesaid diagrams of the supposed recession of the line of cardiac dulness under the Schott treatment. But I have been informed that the lines in question on the diagrams have been obtained by "auscultatory percussion." This method of examination is carried out as follows. The mouth-piece of a binaural stethoscope having been applied to the surface of the chest just below the clavicle a succession of taps are made upon the skin with the end of a small rod or other convenient object. As these taps recede from the stethoscope a point is reached where a certain alteration of pitch is noticed in the note which is heard through the stethoscope. This is claimed to correspond with the edge of the heart. I have made a number of careful experiments with this method of examination and assert that it is absolutely fallacious, as I have ascertained that the alteration in pitch in question always occurs at the same distance from the place where the stethoscope is in contact with the chest wall, wherever that may be. This distance apparently varies in different chests. Moreover, if you place the stethoscope on the centre of the right side of the chest and tap radially from it in all directions, you will find that an alteration in pitch of the note obtained will take place at about an equal distance from it all round it. This is a veritable *reductio ad absurdum*. I have not yet been able to make out the cause of this alteration in pitch, but it is certainly proved by this experiment that it does not depend upon the presence of any solid body within the thorax.

I would here remark that I do not wish for a moment to impugn the *bona fides* of the makers of these diagrams, but I venture to hazard the humble opinion that they have been unconsciously deceiving themselves. The slightest variation in the position of the stethoscope in successive examinations would cause the line of apparent dulness to vary correspondingly. Diagrams like those given in the books would thus be produced in all good faith. But, leaving the question of the possibility of estimating the absolute area of the cardiac dulness to a fraction of an inch for future consideration, does the Nauheim treatment really reduce the size of the heart as shown less accurately by the position of the apex beat? As a contribution to the elucidation of this important question I will give a brief account of four cases, admitted into the National Hospital for Diseases of the Heart and Paralysis, Soho-square, in which I have tried the effects of baths. I shall not give a complete history of each, but confine myself to the points bearing on the subject.

CASE 1.—A man aged forty-five years was admitted on June 6th, 1895. There was a strong family history of phthisis, and the patient showed signs of commencing consolidation at the left apex. He was very anæmic and his heart was dilated. The heart's apex-beat was in the left mid-clavicular line, the left limit of relative cardiac dulness was midway between the left mid-clavicular and anterior axilliary lines, and there was distinct epigastric pulsation. On June 24th he had his first bath, consisting of fifteen gallons of water at 95° F. containing 2 lb. of common salt and 2½ oz. of chloride of calcium, in which he remained for five minutes. The pulse-rate before the bath was 104 and after the bath it was 106. The extent of dulness and position of the heart's apex beat were unchanged. The second bath was given on June 25th, when the pulse before the bath was 66, fifteen minutes after it was 104, and two hours later was 112. On June 26th he had a third bath, the pulse before being 100, and directly after 104. On June 27th the fourth bath was given; before the bath the pulse was 108 and afterwards 104. On June 28th he had a fifth bath, the pulse being 100 both before and after. The position of the apex-beat and the apparent area of cardiac dulness were not altered in any way by the baths. The baths were discontinued after July 7th at the patient's request, as they evidently had no effect except to slightly accelerate the pulse-rate and make the patient feel ill.

CASE 2.—A woman aged thirty-three years was admitted on June 18th, 1895. She was the subject of mitral regurgitation and obstruction following rheumatic fever. Compensation had been failing during the last three years, during which time she had had on several occasions dropsy and slight jaundice. The position of the heart's apex-beat was 1 cm. inside the left anterior axillary line. The left limit of cardiac dulness was in the anterior axillary line and the right at the right parasternal line. She was ordered daily baths similar to those taken by the last case, and to remain in them for five minutes. The first bath was taken on June 19th; the pulse after it was the same rate as before, but apparently a trifle stronger. During the bath on June 20th the pulse became weak and irregular, and after the bath it was decidedly weaker than before, but it was beating at the same rate. The baths were discontinued after July 8th, as they evidently made her general condition worse. The position of the apex-beat and the area of cardiac dulness were not altered in any way as estimated by the ordinary methods of examination.

CASE 3.—A boy aged eleven years was admitted on July 15th, 1895. He complained of dyspnœa and pain in the chest. He had suffered from acute rheumatism on several occasions since the age of three years. The heart's apex beat was 1 cm. outside the mid-clavicular line, and the left limit of cardiac dulness was in the anterior axillary line. At the apex there was a double bruit, the systolic portion of which was conducted up into the axilla. There were also systolic bruits at both the pulmonary and aortic orifices. From July 16th baths were taken five times a week similar in every respect to those given to the other cases. The result was invariably to reduce the pulse-rate from 80 to 70 or less. No other effects whatever were produced. The position of the apex-beat and the apparent area of cardiac dulness remained the same. Compensation was eventually restored by other means after the baths had been discontinued, and he left the hospital very much improved in health.

CASE 4.—A man aged twenty-one years was admitted on July 23rd, 1895, into the Floyd Ward. He had suffered from rheumatic fever three times, the first attack having occurred at the age of eight years. He had also had chorea twice. On admission he was found to have mitral regurgitation with hypertrophy and dilatation, attended by considerable failure of compensation. On Oct. 5th he was ordered to remain for ten minutes in a bath of water at 95° F., containing to the fifteen gallons 2 lb. of salt and 2½ oz. of chloride of calcium. Before taking it a careful examination of the patient was made both by myself and by my house physician, and the apex-beat was found to be 2 cm. outside the mid-clavicular line, the left limit of cardiac dulness was in the anterior axillary line, and the pulse was 65 and markedly irregular. The effect of this bath was to quicken the pulse to 72 beats a minute. The heart, although quiet when the patient was in the bath, thumped a good deal for some little time after he had left it, and he experienced a certain amount of dyspnœa which he had not felt before the bath. The position of the apex-beat and of the left edge of cardiac dulness were absolutely unchanged. On Oct. 6th he took his second bath. After he had remained in it for four minutes he felt giddy and trembled all over, and had to be taken out. He complained of a feeling of loss of power in the left leg. From this date he took six more baths of five minutes' duration each on successive days, varying each one as follows: (1) Of plain water at 100° F.; (2) of water at 100°, containing the same salts as were given in the other cases; (3) plain water at 95°; (4) water at 65°, containing salts; (5) plain water at 90°; and (6) water at 90°, containing salts. The effect of each bath was to slightly quicken the rate of the pulse, and neither their chemical composition nor the temperature at which they were given appeared to influence the result in the slightest degree. None of the baths had the least effect upon the position of the apex-beat or the line of cardiac dulness. After every bath the patient felt drowsy and unwell. He stated that his general condition was decidedly worse for the course of baths, as palpitation was now produced by a smaller amount of exertion than formerly.

In addition to these cases the baths were tried in numerous others with results which did not differ materially from those in the ones reported above. We have, at any rate for the present, discontinued the use of these baths in the practice of the hospital, as neither I nor anyone else who saw the cases could satisfy ourselves that any benefit was derived from them. Neither the amount of saline ingredients which

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they contained nor the temperature at which they were given appeared to modify their action in the least.

So much for the baths. As regards the movements, my investigations have not yet reached a stage when I can venture to express a definite opinion as to their value. I would, however, submit the following propositions. 1. If the movements are capable of producing the remarkable effects which have been ascribed to them they must of necessity be as powerful for evil in unsuitable cases as they may be for good in appropriate ones. 2. This being admitted, there is more than a probability of a great deal of harm being done by them, as they are absolutely certain to be used in unsuitable cases. 3. The reason why they will be used in unsuitable cases is because this movement cure is now being taught indiscriminately in London to masseuses and nurses, who can have neither the clinical knowledge nor the trained observation which alone can render this method safe in cases where the compensation of the heart is affected. In the hard struggle which these women find to make a living it is extremely improbable that they will confine themselves to performing these movements under the direction of medical men—it is notorious that they have not done so in the case of massage; we must, then, be prepared to find masseuses applying the Nauheim movements to cases of "heart disease" on their own account.

But the reader will probably ask me how I can account for the number of cases that we hear about of "heart disease" said to have been cured by the Nauheim treatment. The answer is very simple. Many of them were probably not cases of valvular disease of the heart at all, and many that were, never required active treatment at all. We have, as far as I know, no classified list of the patients who have been treated at Nauheim. We hear of the successful cases mainly from the patient's friends, and it is as a rule only the successes that we hear of at all. It being a fact well known to every physician that the majority of those who firmly believe that they have disease of the heart really have nothing of the kind, it follows that this ratio, modified perhaps, will also obtain among the patients who flock to Nauheim. We shall thus certainly secure a certain number of patients belonging to the two following classes for whom the treatment will obviously be more or less appropriate. The first class will contain those who are suffering from functional disturbance of the heart, which is part of a general neurasthenic condition. For these the Nauheim treatment is admirably adapted, as the patient is made to go through a definite treatment which is mysteriously modified by the physician according to certain supposed indications in his particular case. Moreover, the patient confidently expects to get well, since the treatment has the reputation of having cured cases of "heart disease" The second group of individuals likely to derive benefit are those of middle age, who eat too much, take too little exercise, and suffer from palpitation of the heart and shortness of breath on exertion. They inform you that they have a "weak heart," and they are quite correct. Their hearts are undergoing muscular degeneration and are often dilated. These cases will be much benefited by any form of gentle exercise, and the movements given by Dr. Schott are perhaps as good as any others to commence with.

With regard to real valvular disease, I have reason to believe that many go to Nauheim and go through a course of treatment because they have a cardiac murmur, although compensation is perfect. Their friends persuade them to do so because they are known to have heart disease, and it is quite possible in such cases for the result of the treatment to be a grave disturbance of the hitherto adequate compensation. In fact, my first acquaintance with the treatment was through a case of this nature. On Sept. 4th, 1894, I was called in to attend a patient who had just returned from Nauheim. For many years he had been the subject of aortic regurgitation which was giving him no trouble. It was compensated as far as it could be, and he was able to do a fair amount of the ordinary duties of life. But his friends gave him no rest until he went over to Nauheim and underwent a course of the baths and resisted movements. He returned with his compensation broken down, and died in a few weeks in spite of everything which could be done.

I hope that I have said enough to lead medical men to pause before they introduce into their routine practice a method of treatment the effects of which are so little known and the indications for which so imperfectly understood.

Queen Anne-street, W.

AN UNUSUAL CASE OF WRITER'S CRAMP.

By W. S. COLMAN, M.D., M.R.C.P. LOND.,

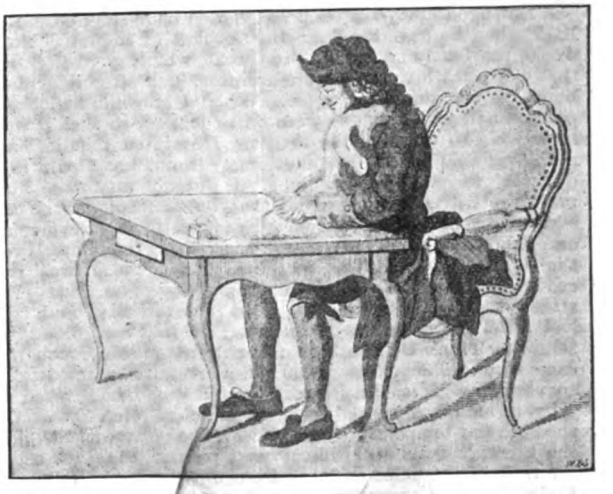
ASSISTANT PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET; ASSISTANT PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, ETC.

CASES of writer's cramp present many varieties. They are often classified into (1) spasmodic, (2) paralytic, or (3) tremulous. The last form is rare, and the paralytic form is not frequent. In it the patient feels more and more effort in writing, until suddenly his hand becomes limp, the pen falls from his grasp, and he is unable for some time to pick it up. The great majority of cases that apply for treatment belong to the spasmodic group. In these the spasm nearly always affects first the most peripheral parts, the fingers and thumb. This spasm may be flexor or extensor in its distribution. If the former, the pen, instead of travelling smoothly

FIG. 1.

along the paper, is too firmly pressed and tends to spurt and scatter the ink, or later the point is dug right through the paper. In the cases of extensor spasm the digits are extended and separated from one another, so that the pen falls from the hand. If the patient persists in using the hand the spasm tends to spread up the arm and even to the other hand. In some exceptional cases, however, it is not the proximal parts which suffer first, but the muscles moving the wrist. By the kindness of Dr. Beevor I have had the opportunity of observing and photographing a case of

FIG. 2.



this description. The patient was a clerk aged forty years who complained that after he had written for a short time his hand would be drawn back at the wrist so that his pen was no longer in contact with the paper. He had no spasm of the fingers and held his pen without difficulty. To prevent this elevation of the wrist he was obliged in writing to hold the hand down by pressing firmly on it with the first two fingers of the left hand, as shown in the illustration (Fig. 1), which is reproduced from a photograph. If he continued to

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write the spasm became so severe that he could no longer hold the hand down with the other and he was obliged to desist from attempting to write.

From a curious photograph of an old print which recently came into my possession it is, I think, extremely probable that Voltaire suffered from a similar form of the complaint, only that in his case the flexors of the wrist rather than the extensors were affected. The print, which is here reproduced (Fig. 2), was kindly given to me by my friend Dr. Squire Sprigge, who suggested at the time that the attitude was strongly suggestive of writer's cramp. A careful examination confirms this conclusion. In the print there is seen Voltaire—whose appearance recalls Dr. Young's description of him as "witty, profligate, and thin"—writing at a table. He is holding a quill without any appearance of awkwardness in one hand, whilst his other is placed under the writing hand, for the purpose, as I believe, of resisting spasm of the flexors of the wrist and so allowing the pen to travel smoothly along the paper. It is difficult to imagine that the position was accidental, as it is certainly not one which the artist would have selected as a graceful pose. It will be noticed that the pen is held in the left hand, but this is of no significance, as in the wood-blocks of this period it was customary to draw directly on the wood without the aid of a mirror, so that the resulting prints were reversed. Attempts to trace the portrait, and to discover the circumstances under which it was taken, have unfortunately proved fruitless. None of the prints of Voltaire show him in this position, and in none of his biographies that I have been able to consult is there any allusion to inability to write. Ill-health did frequently interfere with his prolific writing, but there is no specific mention of inability to write.

SEPTIC (?) PNEUMONIA FOLLOWING SORE-THROAT (QUINSY).

BY W. WALLACE, M.D. GLASG.

I AM not aware of any connexion between the above two diseases being mentioned in the text-books. I observed, however, in THE LANCET of Dec. 14th, 1895, a paper by Dr. S. A. Tidey of Florence, in which he gives it as his opinion that septic pneumonia is a manifestation of septic tonsillitis. This induced me to offer for publication the details of the following case of pneumonia which came under my care recently.

A man aged thirty-six years was visited by me on Dec. 20th, 1895, when he gave the following account of himself. Two weeks previously he had a sore-throat, which got better, so that he could leave home on business, but after returning home his throat became worse. When I saw him he looked pale and ill and his jaws were quite locked, so that it was impossible to examine the throat. He stated that he had not been able to swallow anything without great pain and difficulty for about a fortnight. I did not again see him until the 24th, when I found that he was spitting blood-stained rusty-coloured sputum characteristic of pneumonia, and he complained of pain of a stabbing character over the lower part of the sternum. The pulse was exceedingly weak and the breathing was hurried. He stated that the quinsy had burst on the 21st and this had relieved his throat symptoms. He had a rigor on the following day. On the 25th the patient was in much the same state. The pulse was 100 and weak. He spasmodically shouted on each inspiration, or "hooted" as he described it. This, he said, was caused by the pain above referred to. On the 26th the temperature was 101° F., the pulse was 120, and the breathing was still difficult and painful, the pain being referred to the same region. He complained greatly of the foulness of the expectoration. There was some slight dulness over the apices and harsh bronchial breathing. No basic dulness was present. He had a severe rigor, and I attributed the pain to inflammation of the pleura covering a pneumonic patch adjacent to the diaphragm and causing the spasmodic cries on inspiration. I examined the sputum after it had been kept in 5 per cent. solution of carbolic acid. I prepared some dozen films and stained by Gram's method and with gentian violet. I found numerous long chains of streptococci; staphylococci and also pneumococci, single, double, and in short chains; and zoogleæ of micrococci. A son of my patient had also sore-throat and inflamed cervical glands. No membrane was expectorated in either case. For various reasons I think the case differs from simple pneumonia, and I conclude that the septic material was absorbed from the throat.

Crick, Rugby.

A Mirror OF HOSPITAL PRACTICE BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

SEAMEN'S HOSPITAL, GREENWICH.

A CASE OF HEPATIC ABSCESS WITHOUT HISTORY OR SYMPTOMS OF DYSENTERY.

(Under the care of Mr. G. R. TURNER.)

THE following case of hepatic abscess derives its chief interest from the fact that although it presented so many points in which it resembled the usual tropical abscess which follows dysentery, there was no history of that disease or of diarrhœa; yet the amœba coli which was found in abundance in the pus which escaped after incision shows that it was essentially of the same nature.

The patient, a man aged thirty-seven years, was, on Oct. 28th, admitted to the Seamen's Hospital, Greenwich. He had been seen some four or five months previously by a medical man in Calcutta, who had advised him to return to England. On admission he was so weak and emaciated that he had to be carried in, and appeared to be so exhausted from the slight exertion of being carried from the ship that he was hardly able to speak. There was no history of any previous serious illness. The patient was an able seaman, and for the previous five years he had been employed on ships trading to Bombay and Calcutta, but he had never stayed on shore for more than three weeks at a time. For the previous two years he had been subject to attacks of pain in the epigastric region after food, but there was no history of hæmatemesis and only very occasional sickness. There was also no history of dysentery or, in fact, of diarrhœa of any kind; on the contrary, he had always been most regular in his functions. He had never had malaria. The present illness commenced eleven or twelve weeks before admission with pain in the upper part of the abdomen; the pain was not continuous, but used to intermit a good deal, coming on chiefly at night and lasting for about half an hour at a time. About seven weeks before admission he noticed a swelling about the size of a hen's egg in the upper part of the abdomen and in the middle line which had increased rapidly in size. During the whole period he had wasted rapidly. On examination there was found to be a large tumour in the epigastric region occupying the whole space between the ensiform cartilage and umbilicus, the size being about that of the fœtal head at term. The swelling was generally rounded except at the central point, where it bulged slightly. the skin here being reddened. The percussion note over the tumour was dull; there was fluctuation, but it was not distinct, the tumour being very tense; no thrill was present, but there was distinct pulsation, which, however, was not expansile. On careful examination the pulsation was found to be greater at the upper part of the tumour, diminishing towards the lower end, so it was probably transmitted straight from the heart. The percussion dulness was continuous with that of the liver, which began at the sixth rib above in the nipple line. The edge of the liver was not felt below the costal margin; the tumour itself prevented examination of the left lobe. The spleen was not felt. The urine was normal. Nothing else abnormal was detected in the abdomen. The heart area of dulness was normal and the sounds were healthy. The lungs were clear. The skin was moist but of somewhat earthy colour. The face was drawn and wan. The temperature ranged between 99·2° and 102° F. No jaundice was present. On Oct. 31st ether was

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administered. In the absence of Mr. Turner, through an accident, Mr. Isaacs made an incision about three inches in length in the mid line through the reddened point. A large quantity of chocolate-coloured pus was at once discharged, followed by a smaller flow, accelerated by each effort of inspiration. On passing the finger into the wound he found that there were two distinct cavities. The superficial one was connected with the deep or intra-abdominal cavity by means of a small opening, apparently between the recti, which just admitted the finger. This hole he enlarged, thereby facilitating the discharge of more pus, the whole amount at the operation being rather more than two pints. The boundaries of the intra-abdominal cavity could not be made out with the finger, but a probe could be passed a long way straight backwards and to the left. A large-size drainage-tube about five or six inches in length was passed into the cavity, and the case was dressed with cyanide gauze and wood-wool pads. The temperature fell on the day following the operation to 98°, and remained subnormal until Nov. 14th, when the patient, through restlessness, got rid of the tube, which remained out for twelve hours. The temperature at once rose to 98·8°, and Mr. Isaacs found the hole between the recti so contracted that a tube could not be passed until it had been dilated afresh. The tube was changed about once a week and was very gradually shortened, and finally removed on Jan. 6th, 1896. The quantity of pus discharged was very large for the first three weeks after the operation, gradually diminishing after this. The patient rapidly regained strength and must have gained 3 st. in weight since admission, when he was unfortunately not weighed. The pus was examined directly after operation, but no amœbæ were found on that day. Two days after the operation, however, the pus was found on examination on the warm stage to contain large numbers of the amœbæ coli, which were found daily for ten days. The amœbæ were of various shapes; more commonly they were noticed to be of greater length and breadth (three or four times), with irregular margins which were never uniform on account of the constant protrusion of pseudopodia. These processes were, as a rule, short and blunt, except when they were used for the purpose of enclosing some material, in which case one single pseudopodium was thrown out and encircled the desired material, usually a red blood corpuscle. Of these bodies as many as twenty could be counted in a single amœba. The distinction between ectosarc and endosarc could not be made out with a quarter-inch objective. The nucleus with nucleolus was occasionally but not invariably seen. Numerous granules and vacuoles were seen. Some amœbæ were kept alive and under observation on the warm stage for nearly twelve hours, exhibiting active movements the whole time.

Remarks by Mr. ISAACS.—Up to the time of operation no actual diagnosis as to the cause of the abscess was made. The possibility of its being a subphrenic abscess, secondary to an old gastric ulcer, was somewhat discounted by the fact that although there was a history of dyspepsia the symptoms were hardly grave enough to indicate gastric ulcer. The percussion note also was dull and not tympanitic. In the second place, hepatic abscess seemed unlikely as the liver was not enlarged either upwards or downwards, while the abscess itself masked the left lobe. Beyond this it was quite impossible to get any history of dysentery. In a case published by Dr. Curnow in THE LANCET of May 4th, 1895, the patient had a sharp attack of dysentery three days after operation, but in this case the patient never had the least symptom of dysentery during his whole stay of nearly three months in the hospital. The presence of the amœba coli in healthy evacuations has been demonstrated by Losch, and this seems to point to the necessity of lowered vitality in the intestine, in order that the amœba may get a foothold and so cause the symptoms of dysentery. In the absence of any dysenteric symptoms it may be inferred that the intestine in this case was in a healthy condition, and yet the patient presents an undoubted abscess of the liver yielding specimens of the amœba. The difficulty is to explain the migration of the amœba from the intestine to the liver in the absence of ulceration, or at any rate of that amount which would give rise to the symptoms of dysentery. Another point which seems worthy of special note is that although careful search was made no amœbæ were found in the pus discharged at the time of operation, although they were found in large numbers for some days subsequently. (The pus examined at the time of operation was some of the first discharged.) This feature has been similar in five cases in which I have seen observations made, and seems to point to the fact that the living amœbæ, at any rate, keep close to the wall of the abscess, and examination is more likely to be profitable if made on the pus evacuated last. I am indebted to the kindness of Mr. G. R. Turner for leave to publish this case.

SALFORD ROYAL HOSPITAL.

THREE SURGICAL CASES, (1) NEPHRO-LITHOTOMY; (2) NEPHRORRHAPY; AND (3) NEPHRECTOMY.

(Under the care of Mr. HERBERT LUND.)

THESE cases afford good examples of operation for various renal affections only amenable to surgical treatment. The first shows the more recent method of opening the kidney for the removal of a stone when there is no pyonephrosis and the exact location of the stone cannot be defined by palpation. In the second we would draw attention to the effective method practised of securing the kidney in the loin and the excellent effect produced in the relief of the intermittent hydronephrosis which had given so much suffering. The third case is probably the one which will attract most attention and is of most interest to the profession. The future course of the case should be carefully watched. There have been few similar cases recorded, and the resemblance of the symptoms produced to those caused by calculus of the kidney or tuberculous disease of that organ is very misleading. Even when the kidney was exposed there appears to have been a very close resemblance to a growth of malignant nature.

CASE 1.—An anæmic-looking boy aged sixteen years was admitted into the Salford Royal Hospital on Aug. 16th last with the following history. He had never had any trouble with the bladder until 1891, but in that year whilst trying to pass urine the stream suddenly stopped, and after some straining a small calculus about the size of an orange pip was passed per urethram. Previously to this occurrence there was no history of any attack of pain during the passage of the stone along the ureter. Soon after this, in the same year, he had severe pain in the right side, accompanied by sickness, and he then passed eight small stones in one day. Whether any blood was passed with the stones is not definitely known. In 1893 a small stone became impacted in the urethra and was removed under chloroform, and this operation had to be repeated in 1894. On four separate occasions the boy was admitted into the hospital with a view to operate upon the kidney, but as the symptoms all subsided with rest in bed active measures were postponed until finally, on Oct. 23rd last, the exploration took place. From Aug. 16th to Oct. 23rd, when waiting for operation, the patient was fairly comfortable, but had occasional attacks of pain in the right loin with hæmaturia, and there was also tenderness on pressure over the right kidney, but no enlargement of the gland could be detected. The urine was acid, of specific gravity 1015, and contained albumin, pus, calcium oxalate crystals, epithelial cells, and occasionally blood. The kidney was exposed by an incision parallel to the last rib, the gland being well pushed up to the surface by pressure applied by the house surgeon, Mr. Knight, through the abdominal wall. The convex border of the kidney was then incised for half an inch, and the hæmorrhage, which for the moment was severe, was easily checked by the operator's index finger, which was inserted into the wound. The pelvis of the gland was dilated and contained two calculi, the larger weighing 106 grains and the smaller six grains, composed of oxalate of lime with a thin coating of phosphates in places on the surface. A small drainage-tube was passed into the renal pelvis; the deeper layers of the wound were brought together with catgut and the skin with horsehair sutures. The subsequent course of events was as follows. On the 25th the drainage-tube was removed. The evening temperature was 100° F. and the pulse was 98. Thirty-one ounces of urine were passed containing much blood. The patient suffered from great pain, owing probably to the passage of blood-clot along the ureter. On the 29th the temperature was 98·4°. On Nov. 6th there was no blood in the urine, for the first time since the operation. On Dec. 1st the wound had quite healed; there had been no trace of blood since Nov. 20th, when a small clot was passed. The temperature had been normal since Nov. 4th. On the 11th he left the hospital.

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CASE 2.—A well-nourished, healthy looking girl aged twenty-two years, with a good family history, was admitted to the hospital on Sept. 26th last, and gave the following account of herself. In the autumn of 1894 she received in the right iliac region a blow from the handle of a small coal-truck. In the spring of 1895 she was kept in bed for "inflammation of the bowels," as there was a swelling in the right side in the right iliac fossa. In this attack the right leg was drawn up, and the patient could not walk for three or four weeks owing to pain in attempting to straighten out the thigh. After this she could get about, but limped in walking, and the swelling again reappeared when she returned to her work. On Aug. 13th the patient was admitted into the hospital suffering from a large tender swelling occupying the right iliac fossa. It was semi-fluctuating and closely simulated an abscess in the region of the psoas and iliacus. When put to bed, however, the swelling almost entirely disappeared in a day or two, and there remained a mass about the size of an orange in the iliac region, tender to the touch and apparently fixed, but its deeper relations were not very carefully noted at the time. On Aug. 24th the patient felt so much easier that she determined to go home, but returned in great pain on the following day, and it was then decided to examine the condition by an exploratory operation. On Sept. 30th, under chloroform, an incision three and a half inches in length was made, its centre being an inch and a half internal to the anterior superior spine and parallel with Poupart's ligament. On opening the peritoneal cavity the presence of a movable kidney was easily detected lying close to the brim of the pelvis, the iliac fossa being quite free. The wound was closed with deep catgut and superficial horsehair sutures and primary union was obtained. On Oct. 25th the kidney was exposed in the lumbar region and forced into the wound by means of an assistant's hand applying pressure through the abdominal wall. By means of six silkworm gut sutures the kidney was then sutured to the skin and superficial structures, so that the surface of the organ was almost level with the surface of the skin. The wound was next lightly packed with iodoform gauze and the patient kept carefully at rest in the dorsal position. The wound was not touched for fourteen days and then showed a healthy granulating surface. A second rest of a week was allowed and after this the patient was permitted to roll upon her side for a change. On Dec. 11th there was a firm contracting cicatrix. For a few days after the operation a trace of blood appeared in the urine, for the sutures were carried well into the kidney structure, but this soon disappeared. The temperature only once rose to 100° F. and this was after the exploratory operation and not the second one. Up to Jan. 29th there had been freedom from pain and there had been no evidence of the kidney slipping down again. No belt was ordered, but the patient was cautioned against wearing anything tight in the shape of waist-bands.

CASE 3.—A youth aged nineteen years was admitted into the hospital on March 4th last under the care of Dr. Edge. For two years previously he had suffered from pain in the back, particularly after any unusual exertion. Twelve months before admission he had noticed blood in the urine, but this sign did not accompany or follow an attack of pain. In March, 1894, the hæmaturia lasted three weeks, in December ten days, and in April, 1895, about five days. He complained of pain shooting down both thighs, but not into the scrotum. Some swelling was said to have been noticed under the eyes occasionally. On May 18th he was discharged much relieved; during his stay in the hospital attacks of pain occurred which were chiefly confined to the left side, and were accompanied by hæmaturia and occasionally vomiting. The urine was fair in quantity and acid. On Oct. 10th he was readmitted. The urine contained crystals of uric acid and a trace of albumin. He suffered from much pain in the back. On the 18th there was no albumin in the urine. On the 22nd he suffered from hæmaturia. On the 31st the urine contained a quarter of a gramme of albumin per litre and was slightly tinged with blood. There was pain in both loins. On Nov. 7th there was a trace of albumin in the urine. On the 14th severe pain, commencing on the left side, supervened; the urine was red with blood. On the 15th the pain was better. The morning urine was as dark as porter in colour; the quantity in twenty-four hours was twenty-one ounces. The temperature was 102·2° F. On the 18th a rigor occurred; the temperature was 104·2°. On the 21st there was less blood in the urine, and on Dec. 2nd it was slightly tinged with blood. As the pain was now localised chiefly in the left loin, and the case appeared to be one of renal calculus, Dr. Edge asked his colleague, Mr. H. Lund, to take charge of the case with a view to operation on Dec. 7th. The left kidney was exposed by the usual lumbar incision without much difficulty. It appeared to be much congested, being of a deep purple colour, and was certainly increased in size. No calculus could be made out by palpation and no exploratory puncturing with the needle was tried. A small incision was then made in the convex border and the finger inserted. The kidney substance was extremely soft and friable and the hæmorrhage so profuse that the suggestion was made that the enlargement was due to malignant growth. As plugging the wound failed to arrest the hæmorrhage, and the patient was evidently in a serious condition from loss of blood, it was deemed advisable to remove the kidney. This was rapidly done by passing a thick silk ligature round the pedicle, and then, to make all secure, Spencer Wells's forceps were placed distally to the ligature and the kidney removed. On examination it was found to be a "large white" kidney, extremely friable, but there was no calculus. On the day of the operation the temperature fell to 99°; twenty-seven ounces of urine were passed in the twenty-four hours, containing a fair quantity of blood. On the 8th fifty-five ounces of urine were passed in the twenty-four hours, and on the 9th the amount was sixty-six ounces, the specific gravity being 1010. The wound was dressed and the forceps were removed. On the 16th the urine was without blood for the first time since the operation. The patient had lost all pain—in fact, pain had been entirely absent since the 8th. On the 17th there was a trace of albumin in the urine, the latter amounting to eighty-seven ounces; the specific gravity was 1010 and there was 1·35 per cent. of urea. On the 31st the urine had varied in amount from sixty to ninety-five ounces in the twenty-four hours. The patient was up on a couch. On Jan. 8th, 1896, he left the hospital. The wound had healed; there was freedom from pain. The urine contained 0·7, 0·8, and 0·97 per cent. of urea; no blood, but occasionally a trace of albumin was present; the specific gravity was 1016. The quantity in the twenty-four hours averaged sixty-six ounces.

Remarks by Mr. LUND.—Case 3 is extremely interesting for many reasons. The patient was kept under observation for some time, and it was only when all the symptoms of renal calculus appeared to be localised in the left side that operation was agreed upon. The friability of the kidney was alarming; the incision made was small, just sufficient to admit the finger comfortably; but although no force was used the kidney was felt to split in several directions, and plugging was useless to arrest the hæmorrhage. The relief to all symptoms since the operation has been complete, and the patient looks strong and well; the amount of urine passed is satisfactory, but at times the quantity of urea excreted is much below the normal. For the good results obtained in the three cases my thanks are due to the house surgeons, Mr. Knight and Mr. Ray, for their careful attention before and after the operations.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The Parasite of Malaria.

AN ordinary meeting of this society was held on Feb. 11th Mr. LANGTON, Vice-president, being in the chair.

Lord Kelvin D.C.L., F.R.S., was elected an Honorary Fellow of the society, and the following were elected Foreign Honorary Fellows:—Professor Erb, Heidelberg; Professor Fournier, Paris; Professor Koch, Berlin; Professor Laveran, Paris; Professor Pierre Marie, Paris; Professor von Bergmann, Berlin; Professor Czerny, Heidelberg; Professor Kocher, Berne; and Dr. Weir Mitchell, Philadelphia.

A discussion on the Parasite of Malaria, with special reference to the Malarial Fevers of the South of Spain, was opened by a paper by Dr. R. J. MARSHALL and Dr. GEORGE THIN. After a preliminary sketch of the present position of the doctrine of the etiology of malaria, they gave the results of a study of the parasites of the malarial fevers which occurred in the province of Huelva in the

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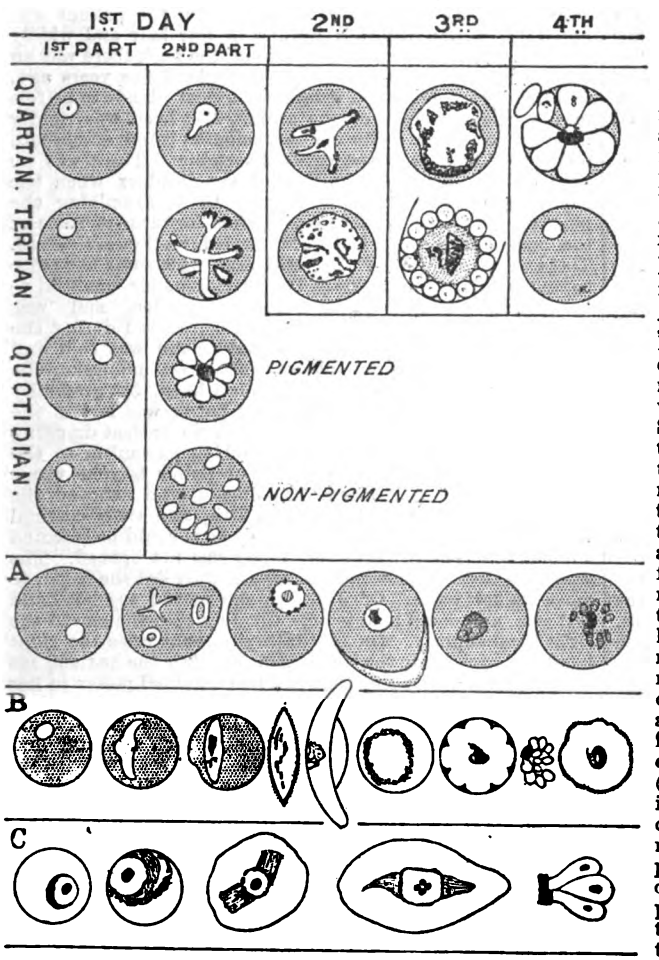
south of Spain, and described the chief characteristics of these fevers. The parasites found included those of the quartan and tertian fevers; and Golgi's description of these parasites was verified in every detail. Under the title of "irregular fevers" cases were described and discussed in which the parasites found were similar to the quotidian parasite of Marchiafava and Bignami. In some of these cases the crescent form did not occur. Other cases were studied in which the parasite found resembled in the early stages that of the quotidian, but was associated in the later stages with the crescent form. Whether the crescent form was a separate species, as was believed by Grassi and Feletti, or was a peculiar development of the quotidian parasite, was briefly discussed. Nine selected cases were described in detail, with microscopical appearances and temperature charts, and they included examples of quartan, tertian, quotidian fevers, fevers associated with the crescent body, slighter cases with comparatively scant microscopic appearances, and cases of mixed infection (the tertian parasite with that of irregular fevers). The question of how the parasite gained admission into the human body was discussed in the light of the conditions which prevailed in the part of the province of Huelva where the cases occurred. Remarkable examples were given of the strict localisation of foci of infection, from which it was inferred that the parasite was not carried about freely by currents of air. Here, as elsewhere, it was found that combined heat and moisture, particularly when associated with disturbance of the soil, favoured the access of the parasite to the human body. The facts supported the conclusion come to by the Italian authorities that drinking water was not the usual medium by which the poison was conveyed, and they were strongly against the theory suggested by Laveran, Pfeiffer, and others that mosquitoes and other insects might act the part of an intermediate host, in this respect supporting the negative conclusions of the Sicilian physicians. The reports of the cases were furnished by Dr. Marshall, who attended the patients and who examined the freshly drawn blood. The dried and stained preparations were studied jointly by both Dr. Marshall and Dr. Thin.—Dr. THIN added that he thought the length of time during which the malaria parasite could be found latent had been much overstated. He had observed one case in which the periodicity was very long—a thirty-day fever. It should be borne in mind that quinine only killed the free spores of the parasite and did nothing else. In quotidian ague it was necessary to administer repeated very large doses of quinine. Arsenic had no effect on the parasite.

Diagram explanatory of the varieties of the parasite of malaria.



The columns marked QUARTAN, TERTIAN, and QUOTIDIAN show the development within the respective periods. The drawings of the quartan and tertian parasites are copied from Golgi, and the pigmented and non-pigmented quotidian from Bignami. The drawings opposite A are selected from those in Marchiafava and Bignami's work to show their views as to the development of the quotidian parasite. Those opposite B illustrate Grassi and Feletti's views regarding the development of the crescent form. Those opposite C show the rare forms of sporulation which they describe. B and C are from Feletti's work.

Dr. CURNOW said that while congratulating Dr. Marshall and Dr. Thin on the care and trouble they had expended in putting these results before the society, he desired to refer critically to certain points in their paper. It was a remarkable fact that while in England they were discussing not only whether a plasmodium had any connexion with malarial fever, but whether a given variety of plasmodium produced a given variety of fever, Surgeon-Lieutenant-Colonel Lawrie, working in India, had boldly stated that a plasmodium had no connexion with the fever, and that in studying these pigmented bodies we were only concerned with the vagaries of a leucocyte. For his own part, he (the speaker) had been well acquainted with the plasmodium for many years, the first he had seen being brought from Rome by Professor Crookshank and shown to him some eight or nine years ago. Since then he had seen numerous examples at the Seamen's Hospital, Greenwich, many of which had been prepared by Dr. M. Spencer, the late house physician. The paper before them concerned itself chiefly with two distinct questions: (1) the varieties of the plasmodium and the relation of them to the fever, and (2) the question of the etiology and spread of malarial fever. With regard to the first of these two questions, the circular or amœbic form of plasmodium was common to all forms of malarial fever. With regard to the pigmented forms of plasmodium which were found, there were many differences between these which he believed were accidental, and were not to be regarded as foundations for varieties of fever. He recognised four chief forms of plasmodium: (1) the circular or amœbic form found in all acute cases, and which might at a certain period become (2) the flagellated form, of which he had seen many examples in quotidian, tertian, and mixed fevers; (3) the rosette forms which perhaps were only found in tertian and quartan forms of fever; and (4) the crescent forms which were found in all forms of malarial fever, and especially in the chronic and persistent varieties—the forms least acted on by quinine and most obstinate to treatment. It was possible that the crescentic forms were derived from the circular or amœboid, and asked what evidence there was that there was a distinct form of malarial fever associated with a crescentic plasmodium. The suggestion in the paper that there might be as many varieties of parasite as there were varieties of fever was not borne out by the supporting cases. He criticised the first case related in the paper, called quartan fever, as destitute of any clinical evidence that it was quartan at all. The administration of quinine after the first appearance of the symptoms had destroyed the value of the evidence derived from after-examinations of the blood. The third case was diagnosed as double tertian fever solely from the microscopical appearances; clinically it was a typical case of quotidian fever. For such a study it was necessary to take cases of simple quotidian, tertian, and quartan ague and to study them free from the interference of quinine. To start from the microscopy of the blood was to argue in a vicious circle. As to the introduction of the plasmodium into the system,

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whether it was air- or water-borne, the general question could not be argued from the experience of local areas in Spain or Italy. The air-borne theory was universally accepted, but, nevertheless, it was not correct to say that there was no such thing as water-borne malaria. Boudin's classical case must first be disproved, in which 120 soldiers returned by ship from Algiers to Marseilles; 103 of them who drank marsh water contracted malaria, while the sailors, who had good water, all remained well. The cases which they saw in the Seamen's Hospital were from ships which took in river water at ports like Savannah, Moulmein, Rangoon, and on the Danube and mouth of the Panama Canal. Often the sailors on the ships had not been on shore, and then there was the evidence that other ships which called at the same ports, but which used condensed water, very rarely had their crews affected with malaria. With regard to the question of propagation by the mosquito he thought that there was a long gap between the finding of the flagellum in the mosquito and the plasmodium in man. The great point in the treatment was prophylaxis. He advised those going into a malarial district to take as much quinine as would lie on a florin with their coffee every morning, and he referred to the experience of officers on telegraph ships spending as much as five months laying cables on the west coast of Africa and calling frequently at ports along the coast, remaining, nevertheless, free from malaria.—The debate was adjourned till the next meeting of the society.

MEDICAL SOCIETY OF LONDON.

Dislocation of the Hip into the Obturator Foramen treated by Excision of the Head of the Femur.—Unreduced Dislocation of the Hip into the Obturator Foramen.—Laminectomy for Paralysis due to Cervical Caries.—Exostosis of Orbit.—Two cases of Sinus over the Sacrum and Coccyx.—Colotomy and Subsequent Enterectomy for Cancer of the Upper Rectum.—Three cases of Hereditary Congenital Nystagmus.—Pott's Fracture treated by Early Movement and Massage.—Restoration of the Os Calcis after Extensive Removal of Carious Bone.—Favus of Scalp and Nails.—Sorofuloderma of Face.

AN ordinary meeting of this society was held on Feb. 10th for exhibition of clinical cases, the President, Sir JAMES CRICHTON BROWNE, being in the chair.

Mr. JOHNSON SMITH showed a case of Dislocation of the Hip into the Obturator Foramen treated by Excision of the Head of the Bone. The patient was a sailor aged thirty, who sustained a very severe injury on Dec. 4th, 1892, when a heavy sea was running in the Bay of Biscay. He was knocked down and lost consciousness, and when he recovered he could not stand or move his left leg. The captain did not attempt reduction, but later he was taken to a small hospital in an Italian port. There two futile attempts were made to reduce the dislocation under an anæsthetic. He was admitted to Greenwich Hospital on April 5th, 1893, and then presented well-marked signs of obturator dislocation. On April 18th Mr. Johnson Smith chiselled through the neck and removed the head of the femur. The good result obtained was discounted by the fact that paralysis of the extensor muscles had followed and the foot was now in a faulty position.

Mr. G. R. TURNER showed a case of Unreduced Dislocation of the Hip into the Obturator Foramen. The patient was a sailor aged twenty, who, three months before admission, while standing at the side of the ship, was knocked over by a sea, falling on to his right side in a half-sitting position, with his right leg doubled under him. Eight weeks after the accident several attempts were made at reduction, both with and without an anæsthetic. Later a medical officer on board ship again attempted reduction with block and tackle under an anæsthetic, but without success. The thigh was flexed and the foot everted. The head of the femur lay nearly in the perineum under the scrotum. The thigh could be flexed on to the abdomen, but could not be extended. Rotation was limited. The limb was shortened 1½ in.; the patient could only limp and was obliged to hobble about with a stick. Under ether manipulation such as was usually adopted in obturator dislocation showed extensive adhesions to exist; these were broken down. The limb could then be made to assume something like the position of a dorsal dislocation, but all attempts at reduction were unavailing. Crepitus of an uncertain nature could both then and now be felt on flexing the thigh on the abdomen. Mr. Turner brought the case before the society, not only as a fellow to the one shown by Mr. Johnson Smith, but also for diagnosis. He thought there was a dislocation into the obturator foramen with possibly some fracture of the neck of the femur, and that attempts at reduction having failed the proper course would be to excise the head of the bone. Rectal examination did not disclose any fracture of the pelvis.—Mr. NOBLE SMITH thought that the first case would be benefited by tenotomy followed by the support of an iron for the foot and leg.—Mr. SHEILD said the day was now past for the old and violent methods of reducing old dislocations by blocks and tackle. He had twice seen paralysis follow from partial tearing of the sciatic nerve. He regarded the second case as one of fracture dislocation on account of the shortening.

Mr. COTTERELL showed a case of Laminectomy for Paralysis due to Cervical Caries. The patient was a girl aged thirteen years, who was admitted on May 4th, 1895, into the West-end Hospital for Nervous Diseases under the care of Dr. Wallis Ord. Upon admission the patient was found to be a well-grown girl, with fair hair and widely dilated pupils. On the right side of the neck there was an old scar due to removal of an enlarged gland five years ago, and there were now some enlarged cervical glands to be felt in the neighbourhood of the scars. The head was rigidly fixed and had been so for eighteen months before admission, owing to old caries of the cervical vertebræ. There was no pain on pressing upon the top of the head or when the heels were jarred on the floor. Upon examining the pharynx there could be felt a projection forwards of some of the bodies of the cervical vertebræ behind the soft palate. There was paralysis of the right arm, which was not quite complete on the ulnar side. The loss of power was said to have come on nine weeks before admission, and was attributed by the parents to a chill contracted during the severe cold of last winter. The right hand was cold and blue. The child was not subject to fits. On admission the patient could feed herself with the left hand, but gradually the side became affected, and then power was lost in the right leg and afterwards in the left one, the patient dragging them when she walked. On June 11th galvanism to the spine was ordered, but as the loss of power became worse this treatment was stopped. On July 1st he removed the spines and laminæ of the fourth, fifth, and sixth cervical vertebræ. No granulations or carious bone could be detected anterior to the cord. The dura mater was not opened. The wound healed by first intention. On July 3rd she began to move the left hand. On July 5th she moved the left hand and arm, and could hold it up. On July 10th she moved the right hand slightly. On July 15th she could raise the right hand and arm above the head. On Aug. 5th the patient sat up for an hour. By this time she had regained power in her legs. On Oct. 25th she was examined and found to have complete power of movement and no loss of sensation. There was no pain or tenderness of the neck, which was stiff and could only be moved very slightly.

Mr. COTTERELL next showed a case of Orbital Exostosis. The patient, a thin, poorly-developed, anæmic-looking lad aged eighteen, was admitted to the Cancer Hospital, Brompton, on Dec. 6th, 1895, with marked protrusion of his right eyeball and displacement downwards and outwards. He had a strong family history of carcinoma, his mother and mother's brother having both died of "cancer of the face." He had had no previous serious illness and had always been fairly strong. Two and a half years ago he first noticed a small lump of the size of a pea in the inner angle of the orbit. It had increased steadily up to the present, but the patient himself and his friends stated that during the last six months it had grown much more rapidly. There had never at any time been any pain. On admission the eyeball was much displaced downwards and outwards, the lower edge of the cornea being about half an inch lower than on the other side. The movements of the ball were good in all directions. The pupils were dilated, equal and regular. There was diminished acuity of vision. There was no evidence of loss of function in the supra-orbital and supra-trochlear nerves. On ophthalmoscopic examination the media of the eye were clear. There was marked blurring of the edges of the disc and congestion, the disc being nearly of the same colour as the rest of the fundus oculi, veins full, with small arteries. There was optic neuritis. A very hard, nodulated, firmly-fixed swelling in the inner and upper part

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of the right orbit was felt; on deep pressure it was felt extending under the supra-orbital ridge half way across the orbit. It was uniformly hard all over, and there was no tenderness. On Jan. 11th, 1896, an incision was made along the supra-orbital ridge through the eyebrows, the eyelids being secured to each other by two horse-hair sutures. The periosteum was incised and peeled down till the tumour was reached. It was found to occupy nearly the whole of the upper and inner part of the orbit. It was firmly fixed, and in appearance like a peeled walnut. There was a sort of pedicle joining it to the supra-orbital ridge at its inner extremity about half an inch wide. The periosteum was peeled down this, and it was then cut with a chisel and mallet. While this was being done it was found to move, and was levered out, coming away quite easily, being attached to the roof of the orbit at its upper and inner aspect. The wound was packed with gauze, a drainage-tube having been inserted into the cavity and the incision sutured with catgut. On the following day the sutures in the eyelid were removed and the plug taken out. There was very little effusion into the cellular tissue. On the fourth day there was a small collection of fluid—broken-down clot—at the outer aspect of the orbit; this was let out, and the wound healed up rapidly. The patient had now good movement of the eyeball in every direction. About five days ago a hard lump the size of a small filbert was found in the inner angle; this had grown rapidly less since. The blurring and congestion of the disc had now practically disappeared, and the displacement of the eye was very much less.

Mr. GOODSALL showed two cases of Sinus over the Sacro-coccygeal Articulation, which brought up the total number of such cases he had seen to fourteen. He laid the sinuses open in every direction, scraped them, packed with dry wool, and applied a fomentation. They both healed rapidly. The average age of the fourteen cases had been twenty-eight years, the left side was usually affected, and there was a history of injury in the great majority of cases.

Mr. J. MACREADY showed a woman who had suffered from Cancer of the Upper Rectum, Colotomy, and subsequent Enterectomy. This patient, aged fifty-three, was admitted on May 24th, 1895, suffering from intestinal obstruction. She had had several attacks, keeping her in bed for a week or ten days at a time. No alteration had been observed in the shape or size of the motions. Six days before admission she had pain in the hypogastrium, which soon diffused over the abdomen. The bowels acted slightly in the morning, but not at all since. Vomiting began in the evening of the same day and was fæcal on admission. The abdomen was much distended, resonant, and tympanitic. Nothing could be felt by rectal or vaginal examination. The abdomen was opened in the middle line, when a hard mass of new growth could be felt and seen at the junction of the sigmoid flexure with the rectum. The growth had not involved neighbouring parts of the bowel, and could not be drawn into the left iliac fossa. He closed the abdominal wound and performed left inguinal colotomy. In view of the severe symptoms of obstruction the sigmoid flexure was sutured to the edges of the wound and opened by a simple longitudinal incision. The bowels acted more freely each day, but the patient remained very ill. Four weeks after the first operation he proceeded to remove the cancerous mass by median laparotomy. The diseased gut was then cut away and the divided ends united, the mucous membrane with interrupted silk sutures and the two outer layers by numerous Lembert sutures. The growth proved to be a typical cylindrical-celled carcinoma. On July 17th, twenty-six days after the second operation, he closed the artificial anus, and the patient left the hospital on Aug. 14th, 1895. The bowels were then acting naturally, and since that time she had had no difficulty in this respect.

Dr. T. OUTERSON WOOD brought before the society an interesting set of cases which are by no means common; they were three cases of Hereditary Congenital Nystagmus occurring in the same family—viz., a brother and two sisters. The cases were hereditary inasmuch as the father's mother was stated to have had large prominent eyes which were always "on the work," and they were congenital because they had always had this movement. The father and mother were healthy people, were no relation to each other, and, as far as could be ascertained, both came of a healthy stock free from nervous affections. There were four members of this family, two brothers and two sisters, of whom three were shown. The other brother, aged thirty years, had prominent eyes, grey irides, no sight defect, and his eyes were quite steady. The elder sister was twenty-six years of age, married, and had one child, a boy about three years old, perfectly healthy. She came to him in the first instance as an out-patient at the West-end Hospital for Nervous Diseases seeking advice for nervous depression. The pupils were equal, acted well to light and accommodation, and there were no fundus changes. Mr. Work Dodd had investigated the refraction and found that she had some myopic astigmatism. The second sister was also a healthy woman aged twenty-five years, and had been married some months. The boy was fifteen years of age and had nystagmus, but in a less degree than his sisters. Mr. Dodd found he had hypermetropic astigmatism of the right and mixed astigmatism of the left eye. The literature of hereditary congenital nystagmus was very scanty. At the annual meeting of the British Medical Association held in London last July Dr. Angus McGillivray read a most interesting paper entitled "Hereditary Congenital Nystagmus Associated with Head Movements," in which he gave an account of two families in which nystagmus occurred. In the first one after skipping a generation it came out in three cases in the second generation and three cases in the third. In the second group there were four members of a family of nine who had nystagmus, the others being free from it. Dr. McGillivray also mentioned that his colleague, Dr. Mackie White, had under his care five cases of nystagmus in one family, and referred also to a paper by Mr. Lloyd Owen in the *Ophthalmic Review* for 1882, where nine cases were noted in four generations.

Mr. NOBLE SMITH showed himself as a case to illustrate the Treatment of Pott's Fracture by Early Strapping, Early Movement, and Massage. On Nov. 13th, 1895, he had a fall, fracturing both tibia and fibula, rather more than the internal malleolus in the tibia, and the fibula just below its centre, and probably also at its lower extremity. The foot was turned completely outwards, the fragment, including the internal malleolus, being separated from the shaft by over an inch. The fracture was reduced immediately and strapping applied to the foot and ankle within half an hour of the accident and before any appreciable swelling had occurred. The strapping was just laid on without any attempt to produce pressure, and was readjusted almost daily in accordance with the increase of tension, which, however, was very slight. The strapping was discarded upon the seventh day. The ordinary back splint, supporting the leg, thigh, and foot, and with side pieces, was applied from the first. At the end of a fortnight plaster-of-Paris splints, one on each side, were substituted for the wooden side-splints. Very gentle movement of the ankle-joint was kept up from almost the first. Massage was begun slightly during the first week and gradually increased in extent until the end of the third week, when the side splints were taken down, one at a time, twice a day for regular massage, care always being taken to avoid disturbance of the fractured bones. Movement and massage caused no pain. The latter was especially comforting. On the twenty-first day he could bear the weight of his body on the foot of the injured leg for a moment. On the twenty-third day he could walk with caution, resting after each step. He felt no difficulty except weakness in the joint. On the thirty-second day he could flex and extend the foot to one-third of an inch of the sound one. Measurement round the ankle was only three-eighths of an inch more than the sound one. On the thirty-fourth day he gave up crutches, walking easily with two sticks. He also dispensed with splints during the day. On the thirty-fifth day (end of the fifth week) he gave up splints entirely. On the thirty-eighth day (five weeks and three days) he rode a horse in Rotten-row. He had a short gallop. He had no difficulty except from weakness of the thigh muscles. Next day he rode again and galloped three-quarters of the length of the row and back. On the forty-second day (sixth week) he walked two miles with sticks. He was a little tired, but there was no increase of the swelling of the leg. After six weeks and two days he hunted with the Queen's Staghounds, riding a young, high-couraged horse. He did not jump. At the end of the seventh week he hunted with the Queen's Staghounds, and rode eight miles across country.

Mr. HERBERT WATERHOUSE showed a girl aged seven, who was admitted to the Victoria Hospital for Children, suffering from Tuberculous Disease of the left Os Calcis. There was a strong tuberculous family history. Four months before admission she limped, walked on tip-toe, and complained of pain in the heel. On admission a fluctuating swelling was

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found over the outer aspect of the os calcis. A curved incision was made, the peronei tendons stripped of their tuberculous synovial membrane, and the whole interior of the os calcis was scraped away together with the outer and part of the lower walls. The cavity left was packed tightly with decalcified bone chips and iodoform and the skin sutured. It healed by first intention. He had adopted this method with success in seven other cases, and believed that the chips merely acted as a temporary aseptic scaffolding and were replaced by new bone.

Dr. EDDOWES showed a girl aged eighteen with Favus of the Scalp, which was typical microscopically, but had no mousy odour and formed no cups. There was favus also of the nails of the thumb and forefinger.

Dr. EDDOWES likewise showed a man aged twenty-five who had suffered for fourteen years from Scrofuloderma of the Face, which rapidly healed under scraping and the application of a plaster of carbolic acid and mercury.

OBSTETRICAL SOCIETY OF LONDON.

Abdominal Hysterectomy with Intra-peritoneal Treatment of the Stump.—Annual Address.—Exhibition of Specimens.

A MEETING of this society was held on Feb. 5th, Dr. F. H. CHAMPNEYS, President, being in the chair.

Mr. HARRISON CRIPPS read a paper on Abdominal Hysterectomy with Intra-peritoneal Treatment of the Stump, with notes of eight cases. He considered that the surgical removal of fibroid tumours of the uterus was called for in the following class of cases: (1) Excessive hæmorrhage, uncontrolled by the ordinary method of treatment, and in which oöphorectomy is impossible; (2) serious pressure effects on the bladder or rectum; and (3) when the pain or the size of the tumour renders the patient unable to earn her living. Mr. Cripps contrasted the extra-peritoneal with the intra-peritoneal method of treatment of the pedicle. The latter gave him the best results. Whilst in the extra-peritoneal method the danger from sepsis was slighter, that from obstruction of the intestine and ureters seemed greater than in the intra-peritoneal method. This greater risk of peritonitis in the intra-peritoneal method was from infection through the vagina. To minimise this risk Mr. Cripps laid stress on two points: (1) Thorough and repeated douching of the vagina with perchloride of mercury; and (2) care in accurately closing the peritoneum over the surface of the stump. Details of the method of operation employed were then given, stress being laid on two points: (*a*) The importance of having sufficient room supplied if necessary by making a long abdominal incision, and (*b*) the method of securing the vessels in the broad ligaments. This depends on whether the layers of this ligament have been separated by lateral burrowing of the tumour or not. Notes were then given of eight cases operated on by the intra-peritoneal method (up to September, 1895). Seven cases ended in recovery; there was one death from sepsis, due to infection from the vagina.—The discussion was postponed till next meeting.

The report of a sub-committee on Dr. Leith Napier's case of solid ovarian tumour was read.

The reports for the year 1895 of the hon. treasurer (Dr. Potter), the hon. librarian (Dr. John Phillips), and of the chairman of the Board for the Examination of Midwives (Dr. Cullingworth) were read and adopted. Vol. XXXVII. of the Society's Transactions was presented.

The PRESIDENT then read his annual address, and a vote of thanks was proposed by Dr. WATT BLACK, seconded by Dr. GALABIN, and carried with acclamation. Votes of thanks were passed to the retiring officers and members of council. Dr. Braxton Hicks was then balloted for as an honorary fellow of the society and declared elected.

The list of officers and other members of council proposed by the council was announced as adopted by the society, no amendments having been proposed according to the recently adopted laws.

The following specimens were exhibited:—

Dr. PLAYFAIR: (1) Slough forming complete Cast of Vagina from a case of Enteric Fever; and (2) Ectopic Gestation.

Dr. W. DUNCAN: 1. Ectopic Gestation removed before Rupture; and (2) Double Tubo-ovarian Cystoma.

Dr. GALABIN: (1) Intra-ligamentous Ectopic Gestation removed after twenty-one years' retention; (2) Tubal Gestation removed at sixth week; and (3) Intra-ligamentous Gestation with intact Fallopian Tube.

OPHTHALMOLOGICAL SOCIETY.

The Visual Effects of Refractive Error.—Uveal Cysts of the Iris.—Atrophy of the Optic Nerve in Three Brothers.—Exhibition of Cases and Specimens.

AN ordinary meeting of this society was held on Jan. 30th, Mr. NETTLESHIP, President, being in the chair.

Dr. GEORGE J. BULL (Paris) gave an account of a series of experiments in which he had endeavoured to reproduce with the photographic camera the effects of the different degrees of myopia, hypermetropia, and astigmatism. The effect of a given error of refraction upon the photographic appearance of the test types was different in certain characteristic respects from the image seen by the eye. By further investigation he arrived at the conclusion that this difference was accounted for by the fact that there was in every case of refractive error an element of monocular diplopia, which he gave reasons for ascribing to the sectors of the crystalline. By adding to the photographic camera a lens which was itself divided into sectors he had been able to produce a photographic image of the test types closely analogous to the visual image with the corresponding error. A series of these photographs was presented at the meeting and will be reproduced in the Transactions.—The PRESIDENT observed that monocular diplopia was not a very common complaint among patients with errors of refraction. He would have thought that had the phenomenon been constantly present it would have been more frequently complained of.—Dr. BULL replied that the phenomenon could be detected at all ages, even in children, but that till attention was drawn to it it was either overlooked or not mentioned through lack of attention.

Mr. EALES (Birmingham) and Dr. SINCLAIR (Ipswich) narrated a case of Uveal Cysts in the Iris in a man aged forty-seven. The condition in the left eye was one of absolute glaucoma, the result of a chronic non-inflammatory glaucoma of some years' standing. Extending into the pupillary area from behind the iris were two dark globular masses. These moved freely with every movement of the eyeball, and on close examination with a magnifying glass fine jelly-like quivering of the surface of each mass was noted. The diagnosis of cystic detachment of the posterior uveal layer of the iris was fully borne out by pathological examination. This was the first case, so far as they knew, in which cystic detachment of the uveal layer of the iris had been diagnosed clinically, though reference was made to other published cases in which this condition was probably present, and attention was drawn to the fine creasing and quivering of the cyst wall as a diagnostic sign between this condition and pedunculated sarcoma of the iris.—Mr. TREACHER COLLINS remarked upon the rarity and interest of the condition.

Dr. F. M. OGILVIE described instances of Optic Nerve Atrophy in Three Brothers who were aged respectively twenty-four, twenty-two, and twenty-seven. In the first one the sight was said to have failed in one night, in the second in three months, in the third in six months. They had all been smokers, but one had given up the habit more than seven years before. In all of them there was a central scotoma; in two there was defective colour vision; in one only the visual fields for white were contracted. The ophthalmoscopic appearances were not very well marked in two of the brothers; there was pallor of the disc, but the atrophy was not of a very high degree in any of them; the vision was much reduced. One of them had improved somewhat under strychnine and galvanic treatment. A peculiarity in the brothers which they shared with others in the family was the tortuosity of their retinal vessels. So far as the family history could be traced there were no others who had optic nerve atrophy. The father and mother had good sight. The latter was one of ten, and there was no history of defective sight among her brothers and sisters. She had had sixteen pregnancies and fourteen children born alive; all the males except the three who were the subject of this paper had died in infancy.—Mr. EDGAR BROWNE and Dr. JOHNSON TAYLOR made some remarks on the cases, which were replied to by Dr. OGILVIE.

The following cases and card specimens were shown:—

Mr. SIMEON SNELL: Alveolar Carcinoma of Upper Eyelid.

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Mr. C. D. MARSHALL: (1) Removal of Metallic Chip from the Vitreous by the Electro-magnet; result eighteen months afterwards; (2) Cholesterine in the Anterior Chamber.

Mr. W. ADAMS FROST: Peculiar Ring-opacity of the Cornea.

Mr. HOLTHOUSE and Dr. R. D. BATTEN: Peculiar (? congenital) condition of Optic Disc in a Case of Choroido-retinitis.

Mr. FISCHER: Extraction of Lenses in Buphthalmos.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

The Rationale of the Accepted Treatment of Gout.—Exhibition of Specimens.

A MEETING of this society was held on Feb. 7th, Dr. A. SYMONS ECCLES, President, being in the chair.

Dr. ARCHIBALD GARROD read a paper on the Rationale of the Accepted Treatment of Gout. He pointed out that very little is as yet known regarding the pathology of gout, and drew attention to several fundamental points upon which there is wide diversity of views, such as the importance of the part played by uric acid in the phenomena of gout, the causation of the accumulation of urate in the blood by excessive production or diminished elimination, the place of origin of uric acid in the body, and the substance or substances from which it is formed. The aims of treatment, as far as the uric acid is concerned, were next pointed out, and the therapeutic methods generally resorted to were mentioned. The bearings of such experimental researches as are forthcoming upon the diet of gouty persons, the exercise they should take, the drugs usually employed in their treatment, and the effects of mineral waters and baths were next considered, and the conclusion was drawn that we are not at present in possession of such knowledge of the pathology of the disease as would be required to enable us to formulate a scientific course of treatment. On the other hand, the belief was expressed that the method of treatment usually adopted, although largely empirical in its origin, is capable of giving great relief, and that the results obtained in the treatment of gout are decidedly satisfactory.—Dr. THUDICHUM referred to the conflicting reports of the results obtained in the various plans, dietetic and medicinal, which had been used for gout, it having been affirmed of many of them that in different hands they had done distinct good, distinct harm, or had produced no results at all. He dwelt at length on the work of Dr. Bence Jones and Dr. Roberts and on recent researches in foreign laboratories, but he inclined to the view that clinical experience was a surer guide in the treatment of so complex a malady as gout.

After remarks from Dr. ALDERSON, Dr. CLEMOW, Dr. MASTERS, and Mr. ATKINSON,

Dr. CAMPBELL POPE expressed the opinion that in the treatment of gout the personal factor was of chief importance, for on careful investigation some obvious hygienic or dietetic fault was usually discoverable. With regard to diet he thought this should not be mixed more than could be avoided, and each particular meal should preserve as far as possible its distinctly nitrogenous or non-nitrogenous character, as the case might be.

The PRESIDENT said that in watching the effects of physical exercise, whether taken by the gouty patients themselves or administered to them in the form of massage by others, he had found the plus excretion of uric acid not to last many days, save when the exercise taken is excessive, and then not only is the quantity of uric acid increased, but that of urea also. He then drew attention to the evidence of deficient oxidation in the tissues of gouty persons afforded by the presence of leucomaines in the urine with no increase in the amount of nitrogen excreted, and pointed out the bearings of this fact on the wider view of the pathology of gout which physicians may be shortly driven to adopt.

Dr. GARROD, in reply, referred to the importance of the President's researches on leucomaines, and said that possibly it might be found that while uric acid was, so to speak, the indicator, leucomaines were the real cause of gout.

Specimens of Renal Calculi removed by Nephro-lithotomy were shown by Mr. KEETLEY, Mr. EDWARDS, and Mr. BIDWELL.

MANCHESTER MEDICAL SOCIETY.

President's Address.—Sudden Death in Aortic Aneurysm.—Exhibition of Cases.

A MEETING of this society was held on Feb. 5th, Dr. HENRY ASHBY, President, being in the chair.

The PRESIDENT in his address on Milk and Infantile Disease dwelt strongly on the fact that much of the milk which is supplied to large cities is unfit for feeding infants, this being chiefly the result of careless handling of milk, so that it contains numerous micro-organisms, and also on account of the bad feeding of the cows. As a result condensed milk and various kinds of preserved milks were used, which though useful temporarily were unfit for continuous use as infants' foods. He advocated the establishment of milk-laboratories in our cities on the type of the Walker-Gordon laboratory at Boston, U.S.A., where the greatest care was taken at the farm attached to the laboratory in the foddering and sanitation of cows; and a milk food could be supplied in which the constituents of the food could be varied in percentage composition according to a prescription of the medical attendant to suit the digestive powers of the infant.

Dr. COLLEY MARCH mentioned the following unusual case of Sudden Death in Aortic Aneurysm. On Nov. 11th, 1895, a man aged fifty years, subject to attacks of slight vertigo, was seized with giddiness while crossing a plank and fell a distance of fifteen feet. He was removed to the Rochdale Infirmary in a semi-conscious condition and put to bed. No injury was discovered. He went on favourably and was allowed to be raised on a bed-rest, though he was kept in bed. On the morning of Nov. 20th he complained of hoarseness and spoke with difficulty, but his breathing was unaffected. At noon, having ordinary meat diet, he partook of a good dinner, and everything had been removed after the meal, when he exclaimed that he was going to be sick, and the nurse hurried to him with a bowl. He did not vomit, however, but suddenly his head dropped and his neck became swollen. The nurse pulled forward his tongue, and the house surgeon, Dr. Davies, who was at hand, examined the fauces without finding any obstruction. The swelling in the neck gradually subsided. No blood escaped from the mouth. The face was livid and the man was dead. At the necropsy a lump the size of a small orange was found in the mediastinum, almost surrounding the trachea. On pressure the tumour collapsed and blood escaped. The heart and pericardium were healthy. The transverse portion of the arch of the aorta was atheromatous and ruptured. From the aperture blood had escaped into the cellular tissue and in this confined situation had extended up into the neck and down to the roots of the lungs. Intense pressure must have been exerted on both vagi, and this was the cause of death. The man did not die from hæmorrhage or from obstructed air passages—in fact, he was self-garrotted.

Dr. REYNOLDS showed a man aged fifty-five years who had had a somewhat sudden attack of Paralysis of the Left Leg about seven years ago. His condition for the last five years had been as follows:—On the left side there was wasting of muscles supplied by the third, fourth, and fifth cervical roots, and all muscles supplied by the spinal nerves below that level were in a state of marked spastic paralysis, with increased knee-jerk and ankle clonus. There was loss of sensation for pain in the distribution of the same cervical nerves, but below this there were no sensory changes, the skin being glossy, the nails coarse, the subcutaneous connective tissue thickened, and the circulation very feeble. On the right side there were no muscular changes of any kind, but in the whole sensory distribution below the seventh cervical root downwards and limited by the middle line back and front, including the right leg, there was total loss of pain sensation and of temperature sensation, especially of heat, but the touch sensation was normal. There was no affection of the face or pupils and the muscular sense was normal on both sides. There was no evidence of leprosy and the patient had never been abroad. There was a scar on the penis, but it was doubtful whether it was due to a soft or a hard chancre; there was no history of secondary syphilis, and there had never been any whitlows. From the sudden onset it seemed to have been a unilateral hæmorrhage into the cervical cord, but the peculiar sensory

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disturbances resembled more closely those found in syringomyelia.

Dr. THOMAS HARRIS showed a series of cases of Myxœdema, some of which had been under continuous and regular treatment, others in which the treatment by the thyroid extract had been irregular and intermittent. The cases where the treatment had been continuous had lost all the characteristic features of myxœdema and could no longer be recognised as instances of that disease. Other cases where the treatment had only been irregularly carried out still presented characteristic features of myxœdema. One case was treated continuously by thyroid extract from May, 1894, to July, 1895. The patient was at the end of that time apparently in perfect health. In order to see whether the individual could then do without the thyroid preparation the remedy was stopped, but in the course of two months all the symptoms reappeared and the case became a typical one of myxœdema again. The extract was again commenced at the beginning of October, 1895, and at the present time the patient appeared to be perfectly well. Dr. Harris thought it probable that the majority of cases of myxœdema required to take a certain quantity of thyroid extract regularly and continuously for many years, and possibly for their whole life. If the treatment was stopped the majority of cases certainly relapsed. Two of the cases occurred in the same family, a brother and sister being both affected. In the case of the man, immediately after he was put on thyroid extract a typical attack of gout developed which subsided when the extract was stopped and reappeared when the extract was again administered. The last previous attack of gout had been three years before. Dr. Harris thought that the thyroid extract by producing increased metabolism might account for the attack of gout, despite the fact that usually in myxœdema the amount of urea excretion is largely increased by the use of thyroid preparations. It seemed not improbable that if anything interfered with the excretion of nitrogenous products an attack of gout, especially in gouty subjects, might ensue. Dr. Harris called attention to the well-known fact that usually myxœdema patients taking thyroid preparations complained of a good deal of pain in the back or limbs, and that it was worthy of consideration as to whether those pains might not be of a gouty nature.

LIVERPOOL MEDICAL INSTITUTION.

The Normal and Pathological Anatomy of the Thyroid Gland.—Exhibition of Specimens.

THE third meeting of the Pathological Section of this society was held on Feb. 6th, Mr. F. T. PAUL being in the chair.

Dr. ABRAM read a paper entitled a Contribution to the Normal and Pathological Anatomy of the Thyroid Gland. After a brief sketch of the development of the thyroid gland and its bearing upon the position of accessory thyroid structures, the relation of the parathyroid and pituitary bodies to the functions of the thyroid gland was dealt with. Specimens were shown of a Pituitary Body from a case of Cancer of the Thyroid Gland, in which the cells had apparently been exceptionally active. The changes in the thyroid gland in tuberculosis, septicæmia, and exophthalmic goitre were then described. The paper was illustrated by specimens and lantern slides, and Dr. Abram expressed his indebtedness to Professor Boyce for the photographs of his specimens and also to Mr. Walter Edmunds of St. Thomas's Hospital for the loan of several slides and lantern slides illustrating the subject.

Mr. C. G. LEE exhibited three specimens: 1. Section of an Eyeball removed from a woman aged fifty-eight years. The greater part of the globe was occupied by a new growth, apparently a sarcoma. The growth had not penetrated the sclerotic. Three months after the operation the patient was in her usual good health. 2. Section of an Eyeball affected with Chronic Glaucoma, in which a large bulging of the sclerotic had occurred behind the ciliary region. The unusual position of the staphyloma was commented on, the cause suggested being long-continued intraocular tension. 3. Portion of a Tumour and a Microscopic Section thereof from the Orbit of a man aged forty-two years. Complete removal of the growth was found impossible, as it had extended into the nose and the antrum of Highmore. Some discussion took place as to the nature of the growth—carcinoma *v.* sarcoma.

Mr. BANKS showed a Meckel's Diverticulum which he had removed from the sac of a hernia; the small bowel was also present. He believed it to be a unique specimen. He also exhibited a Cystic Myxoma of the Breast, and drew attention to the danger of giving such a tumour the old name of sarcocystic sarcoma, inasmuch as the tumour is essentially innocent.

Mr. NEWBOLT showed a Uric Acid Calculus removed by a suprapubic operation from a boy aged eleven years. The bladder was closed, but the skin incision left open. Healing took place in three weeks. Also a Lower Jaw removed from a man aged thirty-three years, who fell downstairs and died from the injuries received. The specimen showed a comminuted fracture at the symphysis and fractures of both coronoid and condyloid processes.

Dr. BUCHANAN showed a beautiful Series of Blood Preparations and Drawings of the same from a series of cases of Spleno-myelogenous and Lymphatic Leuksæmia.

Dr. WIGLESWORTH showed the Intestines from cases of Swine Fever.

Mr. PAUL then exhibited a series of specimens, sections, and lantern slides of Tumours of the Thyroid Gland. He said that the enlargements of the thyroid gland that he had met with might be arranged in the following groups: (1) congenital cysts; (2) malignant growths; (3) adenomata; and (4) hypertrophies. Carcinoma was much more common than sarcoma and was usually of the type of thyroid gland tissue. The adenomata he had excised, eight in number, were four of them cystic, two gelatinous, one fibrous, and one purely glandular. He had removed half the gland in one case of hypertrophic goitre and in two cases of exophthalmic goitre; the gland follicles in one of the latter, unlike Dr. Abram's cases, contained a quantity of colloid matter, though the symptoms were of the most severe type. All the cases operated upon (twelve) recovered rapidly.

Professor BOYCE showed lantern slides of a Thyroid Tumour, which consisted of masses of colloid material without any glandular structure.

Professor SHERRINGTON, Dr. BARENDT, Mr. BANKS, Dr. CHALMERS, Mr. LARKIN, and Mr. HAMILTON took part in the discussion on the specimens and papers.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Sectional Anatomy applied to Pelvic Hæmatocele.—Exhibition of Cases and Specimens.

A MEETING of this society was held on Dec. 19th, 1895, Dr. PORTER, President, being in the chair.

Dr. ANDREW WALKER read a paper entitled "Sectional Anatomy applied to Pelvic Hæmatocele; some Practical Considerations."—The PRESIDENT, Dr. ARTHUR HALL, Mr. MAKEIG JONES, and Dr. KEELING discussed the cases and paper.

The following cases and specimens were shown:—Cavernous Angeioma, by Dr. RUTHERFORD: Congenital circumscribed Xeroderma and Myxœdema, by Dr. BURGESS; Pyæmic Abscess of Lower Aortic Aneurysm which had opened into the Trachea, and Microscopic Slides, by Dr. PREST HUGHES; and specimen of Cancer of Rectum removed by Operation, by Mr. PYE-SMITH.

At a meeting on Jan. 16th, 1896, Dr. KEELING showed a Dermoid Ovarian Cyst removed by operation from a young woman aged twenty at the Jessop Hospital. The right ovary was diseased and removed at the same time; on section it showed commencing dermoid change.—Mr. SANDHAM SYMES showed a Urethral Calculus which he had removed by operation from a man of fifty years of age who had sustained an injury which lacerated his urethra four years previously.—Mr. SNELL introduced a middle-aged man with extreme Myosis and Argyll-Robertson pupil on one side and ophthalmoplegia interna on the other. There was an absence of knee-jerks and there were other symptoms suggestive of locomotor ataxy.—Mr. FLETCHER gave particulars of a case of Obstruction of the Left Bronchus by a Foreign Body which proved to be a fragment of meat bone. The patient, a man aged fifty, was seized with intense dyspnœa whilst at dinner. On examination the left bronchus was made out to be completely obstructed, no air entering the lung. Seven days later the piece of bone was coughed up.

At a meeting on Jan. 30th Dr. PORTER showed a case of Raynaud's Disease. Symmetrical gangrene had been

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threatened in both hands and feet. The feet, however, had recovered and only the tips of some three fingers on each hand had seemed likely to be lost. There was no history of crises or hæmoglobinuria.—Dr. ARTHUR HALL showed a case of Xanthoma and Mr. E. BARBER a case of Outgrowing Tenth Costal Cartilage.—Dr. ALFRED ROBINSON communicated short notes of a Fatal Case of Chorea Gravidarum.—Dr. HARVEY LITTLEJOHN read a paper on Six Years' Notification of Infectious Disease in Sheffield.—The PRESIDENT, Mr. SNELL, Mr. RICHARD FAVELL, Dr. BURGESS, Dr. MARTIN, Mr. EDWARD BARBER, Dr. SAMSON MATHEWS, Dr. STOKES, Mr. HARVEY, Mr. WEST JONES, and Dr. BURMAN made remarks.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

On the Diagnosis of Early Phthisis.—Melanotic Sarcoma of the Eyeball.—Demonstration of Microscopical Specimens.

A MEETING of this society was held on Feb. 4th, Dr. A. BRONNER, President, being in the chair.

Dr. CAMPBELL read a paper on the Diagnosis of Early Phthisis. The difficulties in the absence of definite physical signs were enumerated as follows:—(1) Dyspepsia, said to be present in 33 per cent. of tuberculous cases; (2) vomiting is generally a later symptom; (3) anæmia; (4) wasting; (5) night-sweats; (6) laryngitis; (7) cough, not always an early symptom; (8) hæmoptysis, present in 50 per cent. of the cases; (9) pleurisy; and (10) temperature up in the evening. With regard to physical signs the importance of examining the supra-spinous fossæ was pointed out. Bacilli were not always present in the sputum. The latency of phthisis was discussed; cases were cited of lupus being latent for thirty years and phthisis for forty years. The great importance of an early diagnosis was insisted on. As regards treatment, much was expected from the use of anti-tuberculous serum.—The paper was discussed by Dr. MAJOR, Dr. BELL, Dr. GOYDER, Dr. EVANS, Dr. HONEYBURNE, Mr. MERCER, Mr. HEBBLETHWAITE, Dr. MITCHELL, Dr. MANKNELL, and Dr. A. BRONNER.—Dr. CAMPBELL replied.

Dr. S. LODGE read notes of a case of Melanotic Sarcoma of the Eyeball (third stage) removed eighteen months ago without recurrence, and showed a microscopical specimen of the same. The patient was aged seventy-three years and for two and a half years had a growth in the left eye. Eighteen months ago enucleation was performed, and up to the present time there were no signs of recurrence.—Dr. EVANS and Dr. GOYDER spoke on the case.—Dr. A. BRONNER pointed out the importance of regarding detachment of the retina with suspicion; if, in addition, there was much pain growth should be looked for.—Dr. LODGE replied.

Dr. CRAWFORD gave a demonstration of Microscopical Specimens.

PLYMOUTH MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—The Case of Mr. R. B. Anderson.

A CLINICAL MEETING of this society was held on Feb. 8th, Dr. HINGSTON, President, being in the chair.

Mr. LUCY demonstrated the Results of the Radical Treatment of Inguinal Hernia after the relief of strangulation in a man aged sixty-six years operated on two years ago by Mitchell Banks's method.—Mr. LUCY also showed a man aged forty-five years, whose pile-bearing area was excised after Whitehead's method six months ago with excellent results.

Dr. HAMILTON exhibited for Mr. WHIPPLE a young man with Primary Sore and Secondary Rash now under treatment by increasing doses of antisyphilitic serum. The same member also showed a specimen of many Calcareous Particles coughed up by a man aged twenty-five years with phthisical signs in both lungs.

Mr. ALDOUS exhibited: 1. Subperiosteal Sarcoma springing from the back of the lower end of the right femur, infiltrating tissues in the popliteal space and commencing to attack the bone. The tumour was represented by a hæmorrhagic diffluent mass; it had been growing rapidly for the past four months in a woman aged forty-eight years. Amputation by equal antero-posterior skin flaps was performed through the upper third of the thigh. 2. The Ovaries removed by Mr. Whipple from an unmarried woman aged twenty-nine years; the right ovary was enlarged and cystic, the left was cystic, but not so large as the right. Severe pain after every action of the bowels was complained of, and per rectum a rounded, very painful mass the size of an orange could be felt in Douglas's pouch. 3. Fracture running through the Body of the Sphenoid Bone, lacerating the anterior cerebral arteries, with hæmorrhage into the frontal lobes. The patient, a man aged fifty-five years, of alcoholic habits, but stated to have been sober for two or three days, fell down eight steps at 11 P.M., got up, said he "felt all right," went to bed and became unconscious, but was treated by the friends as drunk and incapable. He was seen on the evening of the third day, when he was found to be partly comatose; he could be roused, and recognised Mr. Aldous. He drank eagerly, &c., and there was no paralysis, but he lapsed into coma with incontinence of fæces and urine, and died on the sixth day.

Dr. WEBBER showed a Heart removed from a man aged fifty-four years who died from angina pectoris. The organ weighed fourteen ounces; the surface of the right ventricle was loaded with fat and the myocardium was fatty; the ventricles were distended with ante-mortem clot; and the mitral valve contained one or two atheromatous nodules, but was competent. The aortic valves were incompetent, being puckered, contracted, and atheromatous; each sinus of Valsalva was hard, roughened, and calcareous. Of the coronary arteries the right was calcified for over an inch from its origin, and the left just at its commencement.—Dr. WEBBER also showed slides of Scirrhous and Encephaloid Carcinoma of the Stomach and a Pigmented Mole.

The case of Mr. R. B. Anderson was brought up, and after some discussion it was decided to memorialise the Members of Parliament for Plymouth and Devonport. Sympathy with Mr. Anderson, who formerly held the post of house surgeon to the South Devon and East Cornwall Hospital with marked ability, was expressed by the members present.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

Exhibition of Cases and Specimens.—Calcareous Degeneration of the Heart and Arteries.—The Weather, Influenza, and Disease.

THE fifth meeting of this society was held on Feb. 5th, Dr. ARGYLL ROBERTSON, President, being in the chair.

Mr. COTTERILL showed a case of Leucoplacia of the Tongue and a specimen of Epithelioma of the Tongue.

Dr. DAWSON TURNER showed a series of photographs taken by the Roentgen process. The photographs exhibited were of the hand, the foot, purse and coins, razor in case, the wrist, &c. An interesting point was brought out with relation to the wrist. The radius and ulna were distinct, but the cuneiform bone was absent, its place being a blank. He pointed out that the movements of the cuneiform bone were not fully understood, and it was possible that during pronation, when the photograph was taken, the cuneiform passed behind one of the other bones, hence the blank.

Dr. BYROM BRAMWELL read a paper on a case of Calcareous Degeneration of the Heart and Arteries with rapidly-developed Subcutaneous Tumours in the axillæ, elbows, groins, of the nates, and popliteal spaces, with symptoms suggestive of Addison's disease in a young man aged twenty-five affected with advanced cirrhosis of the left kidney, the right kidney having been completely destroyed fourteen years before by pyelo-nephritis. When first seen by Dr. Bramwell the patient complained of extreme debility and symmetrical swellings in the axillæ, bends of the elbows, groins, nates, and popliteal spaces. He had the history of a severe illness fourteen years previously. Eighteen months previously he had undergone severe hardships in America, and had broken down in health. From this he never recovered completely. After returning to Scotland, while engaged in work he strained his back, and was confined to bed, with pains in the back, joints, and muscles. When seen by Dr. Menzies he had swellings in the axillæ, bends of the elbows, groins, and popliteal spaces. The swellings were hard and brawny. He made no improvement under treatment, the debility and anæmia increasing and albuminuria developing. When seen by Dr. Bramwell he was in bed. Emaciation was advanced and there was profound anæmia. The skin of the abdomen was dark, the areola of the nipples was dark, but there were no

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pigmented patches on the buccal mucous membrane. The radial and brachial vessels were rigid and thickened. The heart was very feeble, the sounds being almost inaudible. There was a soft systolic murmur at the base. The red corpuscles numbered 2,700,000 per cubic millimetre. The white were slightly increased in number. There was no alteration in the shape of the corpuscles. The urine was loaded with phosphates and contained some albumin. Hard brawny swellings were present in the axillæ, bends of the elbows, groins, folds of the nates, and popliteal spaces. The swellings were dense and firm, like calcareous matter or bone. The skin over the swellings was of dark purple colour, such as seen in purpura, and highly suggestive of sarcoma. The asthenia rapidly increased. The skin became darker, the swellings increased in size, and the temperature began to rise. The heart became very rapid. Both the radial arteries became absolutely rigid and pulseless, and could be traced up to the elbows as rigid cords. The brachial arteries showed feeble pulsation, pericardial friction developed, and the patient died. At the necropsy the infiltrated areas were found to be not so purple-coloured as during life. To the naked eye they seemed to be densely fibroid and cut with a gritty feeling due to calcification. The arteries were extremely calcareous with the exception of part of the aorta, carotids, and vessels of the brain, which were healthy. The peripheral nerves were healthy. The pericardium showed recent lymph. The heart was enlarged, the enlargement being principally of the left ventricle. The papillary muscles and columnæ carneæ showed great calcareous encrustation. The right kidney was represented by a small mass of fibrous tissue. There was no pelvis. The left kidney was in an advanced condition of cirrhosis. The brain was anæmic; the thyroid gland was normal.—Dr. GULLAND made a microscopic examination of the different organs. In the spleen there was an unusual quantity of golden-brown pigment. In the heart the muscular wall showed calcification of the individual cells. The degeneration of the muscle cells had begun in the cell body. Many of the arteries were so calcified as to be converted into rigid tubes. The kidney showed alteration of the vessels, parenchyma, and secreting cells. The middle coat of the vessels was calcified and the intima at parts replaced by delicate connective tissue. The glomeruli were swollen and congested. All showed inflammatory changes, some being mere bundles of fibrous tissue. The secreting tubes were in a state of catarrh. The skin showed fibrous hyperplasia with marked calcification. The most striking points in the case were: (1) The calcareous degeneration of the heart, the interstitial tissue and muscle fibres being calcified; (2) the occurrence of the symmetrical swellings due to fibrous hyperplasia with calcification; (3) the condition of the arteries, almost unique as regards the calcification at the time of life of the patient; and (4) the condition of the kidney. The right had been entirely destroyed and the left was in an advanced state of degeneration. The absence of kidney symptoms was extraordinary. During childhood the right kidney must have been destroyed. The calcareous matter circulating in the blood and not being excreted by the degenerated kidneys had become deposited in the organs and subcutaneous tissues. The condition must have come on rapidly, the swellings having appeared first within six weeks of death.—Dr. RUSSELL said he had listened with great pleasure to the account of this unique case. The occurrence of calcareous degeneration with kidney cirrhosis in the aged was frequent, but in the earlier stages of life it was very rare. He (Dr. Russell) had recently seen a man of thirty-three years with an aneurysm of the abdominal aorta and thickened and atheromatous arteries, who had been operated on some time ago for aneurysm of the popliteal artery. He also dwelt upon the interesting and unique character of the tumour-like growths.—Dr. P. A. YOUNG thought the condition might be similar to that seen in myositis ossificans which he had seen in early childhood.—Dr. FOWLER and Dr. ARMOUR spoke.—Dr. BRAMWELL replied.

Dr. A. LOCKHART GILLESPIE gave an abstract of a paper on the Weather, Influenza, and Disease. He had drawn up statistics of the admissions to the Royal Infirmary during the last ten years. He had first investigated the admissions of different diseases as affected by the weather. During three years when cyclonic weather was most marked respiratory cases were admitted in larger numbers. Pneumonia was an exception to the law holding in other respiratory disease, for the largest number of pneumonias was admitted in anticyclonic periods. Cardiac and kidney diseases were most numerous in cyclonic weather; gastro-intestinal cases in anticyclonic. Numerous tables and diagrams were shown illustrating the influence of the weather on admissions to the infirmary. Before each epidemic of influenza there was a period of cyclonic weather. The epidemic began in anticyclonic weather. Before the epidemic rainfall was above the normal, during the epidemic below the normal. The epidemic thus commenced after wet weather, began during dry weather, and ended with wet weather.

Reviews and Notices of Books.

The Vaccination Question. By ARTHUR WOLLASTON HUTTON, M.A., formerly Scholar of Exeter College, Oxford; Librarian of the National Liberal Club. London: Methuen and Co. 1895. Price 2*s.* 6*d.*

IT is not unsatisfactory to critical readers that Mr. Hutton has reprinted the letter addressed by him in 1894 to Mr. Asquith, at that time Home Secretary, because it is now accompanied by notes and corrections of a few errors which, although they did not in the least affect the general arguments, are, nevertheless, undesirable in a controversial essay. Along with this letter there is now published one addressed in October, 1895, to Mr. A. J. Balfour, First Lord of the Treasury, but its only material contribution to the subject of debate is an abstract of a paper by Dr. Adolf Vogt of Berne on the results of the discontinuance of compulsory vaccination in twelve Cantons of Switzerland. Compulsion, however, still exists in ten Swiss cantons. It is generally known that Mr. Hutton is one of the most resourceful and uncompromising opponents of vaccination and a strenuous advocate of the total and immediate repeal of the compulsory laws. Granted the efficacy of vaccination as a prophylactic against small-pox, compulsory legislation is not an inevitable corollary. It seems, however, that in practice the two questions are difficult to keep separate, and the opponents of compulsion are well aware that clamorous denunciation of vaccination as useless and dangerous is the easiest means of furthering the object which they have at heart. The author accordingly finds vaccination to be an unmitigated evil; in the few cases where its supporters seem to have some show of reason on their side he ascribes the alleged good results to improved sanitation, to a previous attack of small-pox, or to constitutional immunity, and so forth. On statistics which show a higher mortality from small-pox among unvaccinated than among vaccinated patients he is especially severe, these figures being "cooked and marshalled" (p. 58), "alive with prepossession" (p. 59), and "prepared by enthusiastic advocates, without any critical check, unsatisfactory evidence in any case" (p. 77). On the other hand, it may be urged that the statistical method favoured by the author is not unexceptionable, and that his implied division of the population into vaccinated and unvaccinated is for practical purposes no more reasonable and satisfactory than a hard-and-fast division into educated and uneducated would be, this analogy being helped out by the circumstance that some adults appear to retain no more of the protective effect of their vaccination in childhood than an ordinary labourer retains of the literary accomplishments of his board-school days. The mere assertion that a given individual or a given proportion of the population is vaccinated has but slight clinical or statistical value in the absence of precise evidence as to the quality of the vaccination and the time which has elapsed since it was performed. That a solitary vaccination in infancy does not confer life-long protection from small-pox has been well known and recognised for very many years, and it is a mere dialectical artifice to engage in an elaborate confutation of the opinions to the contrary effect entertained in the end of last century,

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when systematic vaccination was a novelty and the data showing its limitations were necessarily unprocurable. The protective effect of primary vaccination diminishes as the individual becomes older, and this is what provides Mr. Hutton and his fellow-workers with a statistical basis for their contention that small-pox attacks the vaccinated and the unvaccinated alike, and that populations containing 96 per cent. of "protected" individuals are nevertheless liable to outbreaks of the disease. Successful primary vaccination records itself very distinctly in the situation where it has been performed; if not thoroughly successful it is little more than useless, and not much better than the "vaccination" with pure glycerine which Mr. Hutton mentions without disapproval on page 39. It is obvious that any serious and unprejudiced inquiry into the nature of the relations between vaccination and small-pox must take account of the number, quality, and age of the cicatrices visible on the arms of small-pox patients, and the proportion of severe attacks and deaths in the several sub-divisions according to which the cicatrices may be classified. The study of small-pox following successful revaccination will not give much trouble, for experience shows it to be of rare occurrence. It should be carefully borne in mind that vaccination may fail to be protective either because its effect is impaired by lapse of years or, on the other hand, because it is too recent. Cases of concurrent variola and vaccinia are a well-known consequence of vaccinating all the occupants of a house where small-pox has shown itself, the explanation being that these patients received the small-pox infection before the vaccination took effect. Protection does not commence until the vaccine vesicle and areola are formed, and if the infection of small-pox has entered the system during the preceding thirteen or fourteen days—the period of its incubation—the two diseases will be developed simultaneously. Mr. Hutton has handled his arguments very dexterously and made the most of them, but they are not likely to convince practitioners who have much clinical experience of small-pox among vaccinated populations. His book will, however, no doubt be read by unthinking persons, who will imagine that his rhetorical fulness and fluency guarantee his knowledge of the subject and entitle him to pose as an authority. The writer of the present notice has never had small-pox, but has in the course of years encountered a great many cases of it; he ascribes this exemption neither to vaccination in childhood nor to "constitutional immunity," as Mr. Hutton suggests, but to two revaccinations, each attended by formation of vesicle, areola, and crust—one performed by the late Dr. Marson of the Highgate Small-pox Hospital in 1871 direct from an infant's arm, and the other in 1884 with fresh matter from a calf in the Lamb's Conduit-street Station.

A Manual of the Practice of Medicine. By GEORGE ROE LOCKWOOD, M.D. Philadelphia: W. B. Saunders. 1896. Price $2½.

OF the making of new text-books of medicine there is necessarily no end, on the other side of the Atlantic as on this. The present volume is one of the "New Aid Series" issued by W. B. Saunders of Philadelphia and is presumably intended mainly for the use of students. It has many good points. It is clearly printed and the misprints are few, though we would call the publisher's attention to a startling one on page 756, where "hemorrhage" has been printed though "hemiplegia" is clearly meant. In the general arrangement of the book Osler's classification of diseases has been followed: the old practice of a general introductory chapter is discarded, and the reader is confronted on the opening page with the definition and synonyms of typhoid fever. This extreme abruptness of onset, found in many modern text-books in which conciseness is an aim, does not appear to us to be of real advantage. The old voluminous introductory disquisition may have been a mistake, but surely the student needs some general acquaintance with the pathology and treatment of pyrexia itself and with the nature of contagion—subjects which might well have formed a short introductory chapter to the section on fevers. Similarly, a short general introduction to nervous diseases discussing such symptoms as coma, convulsions, and aphasia would be of the greatest value to the student, and its omission constitutes a distinct defect in the book; coma and aphasia, indeed, do not even appear in the index. The general matter is, however, good, clear, and up to date; some of the sections, such as that on hypertrophy and dilatation of the heart, are particularly lucid and well arranged, and some of the tabular statements—that, for instance, dealing with the conditions under which symptomatic purpura occurs—will be useful to the student. The chapters on nervous diseases are the least satisfactory, the space accorded to such an important disease as general paralysis of the insane being singularly inadequate. The pathological changes in the spinal cord in locomotor ataxia are not very well described, and no idea is given of their vertical distribution. It is very misleading to state in the table of differential symptoms between cerebral hæmorrhage and embolism that the former usually occurs from the right middle cerebral artery and the latter in the left; the slight differences which exist are of little or no value in diagnosis. A good feature in the book consists in the introduction of coloured temperature charts, with which the pulse- and respiration-chart is often combined. There are, further, one or two excellent coloured plates, notably one of the blood in leukæmia. Regarding the book as a whole, it is one which may be read with advantage as a change from those with which we are familiar, but it is scarcely of such merit as to displace our own standard works.

LIBRARY TABLE.

The Student's Guide to Practical Therapeutics. By ALEXANDER WHEELER, L.R.C.P. Edin., L.R.C.S. Edin., L.F.P.S. Glasg. Edinburgh: William Bryce. 1895.—The author of this work ought in justice to himself to have drawn the reader's attention more plainly to the limitations inseparable from his brief sketch of an extensive subject. Within the space of 145 small pages, being Section I. of the book, he describes the treatment of a number of diseases, including rarities like Hodgkin's disease, myxœdema, acromegalia, Addison's disease, and Grave's disease (*sic*); but there is no reference to many far more common morbid states, such, for instance, as erysipelas, or to any form of skin disease. There are several typographical errors such as Grave's disease (four times at least), and the following at p. 176: "Broadly speaking, opium morphine and its principal alkaloid are stimulants, narcotics," &c. In Section III., entitled "A Synopsis of Drugs in Daily Use," there are some useful practical hints.

The Guide to South Africa. Edited annually by A. SAMLER BROWN and G. GORDON BROWN for the Castle Mail Packets Company. London: Sampson Low, Marston and Co., Ltd. 1895. Price 2*s.* 6*d.*—Everything relating to South Africa is of absorbing interest at the present time, and in this well-arranged volume of 350 closely printed pages general readers will find a wealth of varied information on almost every aspect of that country. It is written with a special view to the requirements of tourists, sportsmen, invalids, and settlers, and has special sections on each of the South African States, with chapters on Climate, Health, Mining, Sport, &c. Twenty-three short chapters are devoted to journeys between various important centres, and there are twelve coloured maps.

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Mention has already[1] been made in these columns of the excellent atlas of South Africa published for the Castle Line Steamship Company.

Guide Pratique d'Hygiène et de Médecine Coloniale à l'usage des Postes Militaires dépourvus de Médecin. (Practical Guide of Hygiene and Colonial Medicine for the Use of Military Posts destitute of Medical Men.) Par le Dr. SADOUL, Médecin de Première Classe de la Marine. Paris: Augustin Challamel, Éditeur Librairie Maritime et Coloniale, 17, Rue Jacob. 1895.—This appears to us to be a trustworthy and useful book of its kind, well-arranged and easily referred to. Perhaps the best chapters are those on the Choice and Preparation of Drinking Water, where the uses and dangers of filters are judiciously estimated, on the Treatment of Diarrhœa and Dysentery, and on Fractures and Injuries. The dose of quinine in fever, we notice, is given as one or two grains, and in extreme cases three grains, the author preferring hypodermic administration in half these quantities. The book will fulfil its purpose if it survive long enough the voyage to the tropics, for its characteristic paper binding is adapted to anything rather than the rough usage of a Colonial outpost.

The Tombs of the Popes: Landmarks in the History of the Papacy. By FERDINAND GREGOROVIUS. Translated from the German by Mrs. L. W. TERRY. Rome, 1895.—This is a classic in its original German and also in the authorised versions of it in French and Italian. Only now, however, is it made accessible to the English reader. Mrs. Terry has performed the translator's task so well as to remove the reproach of its having been so long left unattempted. Her work is so finished in itself that it conveys the impression of something "well worth waiting for." No better guide to the great epoch-making events in papal history could be offered to the student on his first visit to Italy; but further and deeper familiarity with the subject suggests aspects of it in which more extended information would be welcome. Probably no men were ever so faithfully and so skilfully served by their physicians as the long line of the Popes, and the author might have supplemented his work by some notice of the more prominent of these able and circumspect consultants. Indeed, "The Papal Medical Advisers" might form the theme of an independent work not less instructive than interesting. Not a few of these functionaries participated effectively in the policy of their august patients; while many of them were distinguished in their day for scientific as well as clinical proficiency. Such, for example, were Lancisi, early in last century, and Viale Prelà and Ceccarelli in the middle and later decades of the nineteenth.

Introduction to the Study of Fungi. By M. C. COOKE, M.A., LL.D., F.L.S. London: Adam and Charles Black. 1895. 14*s*.—Those engaged in the study of fungi will welcome this new work by Mr. Cooke, who is already the author of many other books on the same subject. This volume is especially intended for the use of collectors, and it is clearly written and pleasant to read. It consists of three principal divisions, which deal with organography, classification, and distribution respectively, the last division being necessarily the shortest on account of the lack of knowledge which still exists in connexion with that subject. Very full bibliographical lists are placed after the principal chapters, which will be invaluable as references to those who wish to pursue their study further. There is at the end a short appendix on methods of collecting, in which many useful hints are given for practical work which will materially help those who are beginning the subject. The book is very well got up and contains several good illustrations, and there is also a glossary of terms.

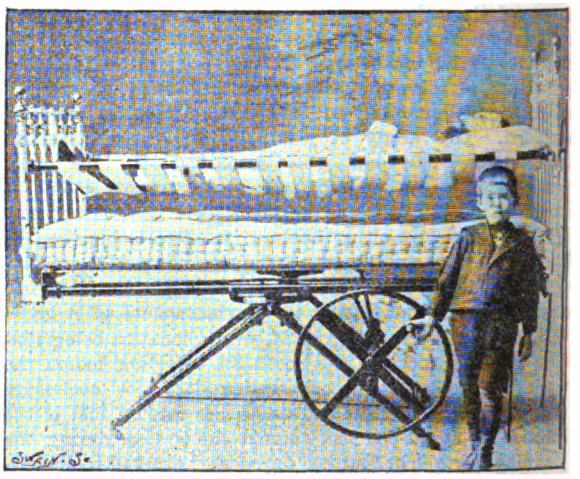
[1] THE LANCET, Feb. 16th, 1895, p. 416.

New Inventions.

THE GORHAM BED.

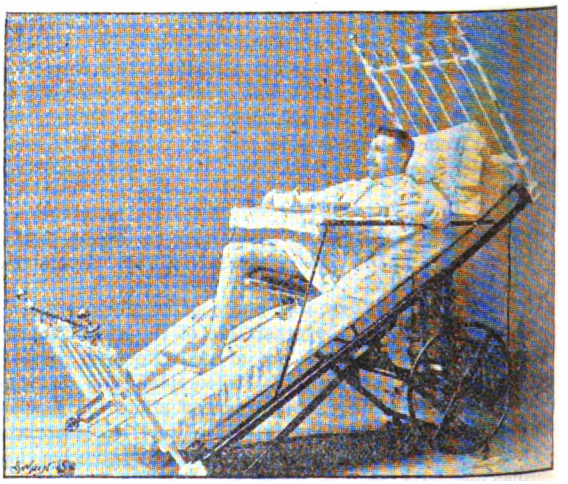
THE ordinary form of bed on which the healthy take their rest and repose is at the best but ill adapted for use by the sick, and various have been the attempts made to modify it for use in the sick chamber and the hospital ward. The latest invention in this direction is the Gorham bed, and it is one of the best we have yet seen, for it not only affords comfort to the bedridden but makes the work

FIG. 1.



of both medical man and nurse easier. This new form of bed has the appearance of, and is, in fact, an ordinary French bedstead; but instead of being supported by a leg at each corner it rests upon a Λ-shaped trestle, to which it is jointed, and is capable of being elevated or depressed at either end. This is accomplished by turning the wheel shown in the illustration (Fig. 1), the axis of which is a

FIG. 2.



leading screw carrying upon it two elevating arms attached to the sides of the bedstead with a ball-and-socket joint. The motion imparted to the bed is an extremely slow one, and there is an entire absence of noise or vibration. Upon the bed is placed a hammock formed by stretching webbing belts, which, by an ingeniously arranged buckle, may be released, slackened, or tightened instantaneously, over an iron frame. By the aid of this stretcher the patient can be

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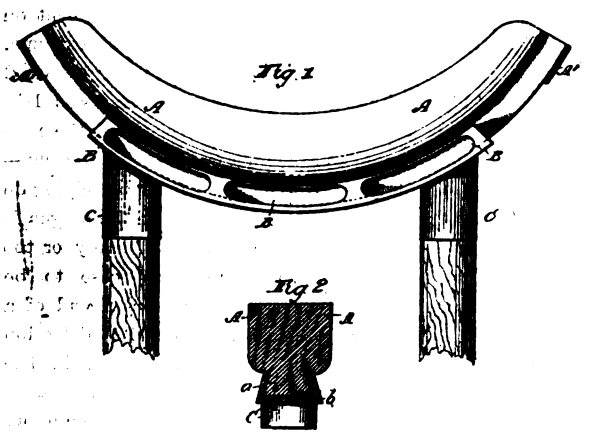
lifted free of the bed, and the clothing changed and the mattress aired with little or no disturbance of the patient. Examination may be readily made and dressings easily applied. A seat- and foot-rest, readily attached to, or detached from, the bed, enables the patient, even if compelled to lie in the supine position, to practically sit up at table for eating, writing, or reading, and to recline at any angle on an inclined couch. A patient who is able to flex even one leg only can sit in a normal position. All these changes of position are procured mechanically without any muscular effort by the patient, and the mechanism is so simple that it may be worked by a child. All parts of the bed are of iron or steel. As a preventive of bedsores the Gorham bed presents distinct advantages. As shown in Fig. 2, a patient suffering from a fracture may sit, stand on the well foot, recline at any angle, and be raised on the hammock without changing the tension on the extension weight, and, as the illustration also shows, such a patient may dine at table. In cases where a patient is entirely helpless the invention will prove of great use, and the ease with which the bed can be tilted makes it a useful adjunct to obstetrical practice and abdominal surgery. If desired the bed can be used as an operating table. There are one or two obvious improvements which can easily be made. The wheel with its handle in a children's ward especially would be likely to prove a source of danger, and should be replaced by a crank-handle. The head of the bed, too, might be made to fold back so as not to project over the head of the patient when the bed is tilted forward. With these improvements the Gorham bed should hold an important place among the various mechanical devices invented for the comfort and well-being of the sick. The invention is sold complete for £15, £9, and £5, according to finish. It is also intended to let the bed out on hire at from 30*s.* to 40*s.* a month.

The Gorham Invalid Bed Company, 14A, Finsbury-square, E.C., are the manufacturers.

IMPROVEMENTS IN CRUTCHES.

THIS invention of Mr. George B. Main of Glasgow relates to improvements in crutches, the object being to remove from under the arm the friction at present existing and caused by the backward and forward movement of the crutch when in use. Hitherto the head or crosspiece of crutches has been made in one piece—that is to say, without separate movement or mechanism—so that when the crutch is moved backward or forward, as in actual use, friction takes place under the arm between the head or cushion of the crutch on the one part and the arm on the other part, and so long as the crutch is being used this friction exists. In carrying out his invention Mr. Main has caused the point of frictional contact to be removed from the body or arm by making the head or crosspiece of the crutch in two parts, one part being stationary and the other part



slidable on the stationary part, which allows the cushion or arm rest to remain stationary during the forward and backward movement of the crutch, and thereby transfers the friction from between the arm and the cushion to the lower point of contact between the two parts of the head or crosspiece. There are different forms of slidable adjustment, but that shown in the illustration he considers simplest and to be preferred. Fig. 1 represents in side elevation a head or crosspiece of a crutch made in accordance with Mr. Main's invention. Fig. 2 is a transverse section of the same; the upper or stationary portion of the head is marked A and the lower or slidable portion B. The lower edge of the said stationary piece A forms a sector of a circle, and in cross section (reference being had to Fig. 2) constitutes a dovetail projection A. This dovetail projection A, works in the dovetail recess C of the lower slidable portion B of the crutch, which is also made a sector of a circle and concentric with that of the upper portion A. Stops A' are formed to limit the movement of the slidable portion B. The slidable portion B is provided with two sockets, C, for connecting the head or crosspiece of the crutch.

SCOTTISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE newly-formed Scottish Poor-law Medical Officers' Association held its inaugural dinner in Glasgow on Jan. 31st, when the chair was occupied by Dr. Bruce of Dingwall, the direct representative of Scotland in the General Medical Council. He was supported by an honorary President of the Association, Mr. Alexander Cross, M.P. for Camlachie (Glasgow), as also by prominent members and officials of the various local parish councils, while a large number of medical officers from various parts of the country were present, as well as members of the medical staffs of the Barony, City, and Govan parishes in Glasgow. The Chairman, in the course of the evening, spoke of the work done and the responsibilities incurred by parish medical officers, more especially those working in remote, sparsely populated districts, and advocated the necessity of reform in parochial medical administration. He commented on the fact that suitable house accommodation was invariably provided for the clergyman and schoolmaster of a district, while the medical officer's requirements in that respect were completely ignored. The slender tenure by which the medical officers hold their posts was another point to which attention must be directed and improvement demanded. In districts in which from lack of population one medical man only can be supported, the loss of the parish appointment means the introduction of a new competition and financial loss, which is always far beyond the mere deprivation of the parochial stipend, and may be actual ruin. The fact that this deprivation can be effected in obedience to a temporary popular clamour or to gratify the economical desires of some "guardian of the rates" is a state of matters that ought to be remedied. The parochial medical officer should in fact be recognised as an independent civil servant with a salary suitable to his responsible and arduous duties, and in large parishes he should have a properly qualified assistant. The views advanced by Dr. Bruce were approved by the meeting, and Dr. William L. Muir, the President of the Association, endorsed all that had been said, emphasising the necessity for the medical officer being made independent of the local authorities in order that his responsibilities to the poor of his district might be met without risking the loss of his appointment. Mr. James Brand, chairman of the Barony parish council, responding to the toast of the "Parish Councils of Scotland," took occasion to express his sincere sympathy with the objects of the society, which he said had his approval long before he heard them formulated, and he assured the meeting that he would gladly assist in furthering the objects of the society. Mr. Wallace, inspector of poor (Govan board), spoke in similar terms, especially commending the desire for fixity of tenure, as it enabled a man to do his work unhampered with the fear that the conscientious discharge of his duty might lead to his dismissal.

The Association is to meet once a year; it is open to all having an interest in poor-law work, more especially to present and past holders of parochial medical appointments, and it is managed by an executive to be elected annually. The present office-bearers are Dr. Bruce (Dingwall), Honorary President; Dr. W. L. Muir, President; Dr. David Couper, Vice-President; Dr. Matthew Martin, Treasurer; Dr. Alexander Murdoch (17, Broad-street, Mile End, Glasgow), Secretary; with Dr. Findlay, Dr. Core, Dr. G. R. Fortune, Dr. Cullen, and Dr. Wallace to complete the council.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 15, 1896.

AT the Totnes County Court on Feb. 5th a case was tried which exemplified in a very striking manner the difficulties that present themselves to juries in cases where medical evidence forms a leading feature. A Brixham trawler named CAMPION had the misfortune in May of last year to be crushed between the boom and the capstan of his boat. He received an injury to his shoulder, and on going ashore next day he went at once to Mr. HAYWARD and told him of the accident and of the pain he was suffering. At the surgeon's request he stripped, and after an examination he was assured that there was no dislocation or fracture, and that he must rest his arm and rub in a liniment. Ten days after the injury CAMPION consulted another surgeon, Mr. MAYER, who told him there was a dislocation of the acromial end of the clavicle and inflammation of the bone as a result of this unreduced displacement. He proceeded to treat this inflammation, and on a subsequent visit "set the bone and bandaged up the shoulder." It is unnecessary to follow the case through all the intervening stages. It is enough for our purpose to state that CAMPION, influenced no doubt by Mr. MAYER'S opinion, brought an action against Mr. HAYWARD for "negligence and carelessness." The trial lasted several hours and consisted almost entirely of medical evidence. Mr. MAYER, Mr. SQUARE, Dr. MCBEATH, Mr. KAY, and Mr. VICKERS all agreed that the acromial end of the clavicle was dislocated upwards on to the acromion, that such a dislocation could be easily detected and ought to have been detected when the patient was first seen. They were followed by Mr. HAYWARD, Mr. ELLIOTT, Mr. PICKERING PICK, Mr. PAUL SWAIN, and Mr. LUCY, who were all equally emphatic in their evidence that the clavicle was not dislocated now and had not been dislocated in May last. The judge very naturally referred to this case as presenting difficulties as great as had ever occurred to him in all his experience. The jury, after considerable deliberation, found a verdict in favour of the defendant, and judgment was entered accordingly.

It is impossible not to feel that the public must view such a case as this with the gravest dissatisfaction. The man in the street will say that the collar-bone is one that is easily handled and felt, and that it ought not to be possible to have conflicting evidence on such a simple matter of fact as whether its acromial end is or is not dislocated. So argues the man in the street, and he will probably explain the discrepancy in the evidence by the influence of professional rivalry on the one hand and professional friendship on the other. With such a view of this case we cannot for one moment agree. We do not doubt that the difference of opinion was honest and that it arose from the inherent difficulty of the case. For it must not be lost sight of that these cases are difficult. Although the clavicle is a subcutaneous bone, and its outline is plainly to be felt from end to end, yet its acromial articular facet is very small, and unless great care is taken a mistake is easily made in determining a dislocation. There is normally an elevation at the acromio-clavicular joint, and this is readily mistaken for a displacement of the clavicle. But in the present case all the witnesses seem to have agreed that the acromial end of the bone was enlarged; some looked upon this as the result of the man's laborious occupation, and others attributed it to the injury. But all agreed it was present. This enlargement no doubt simulated a dislocation and must have rendered the diagnosis even more difficult than usual.

But when we have granted that the diagnosis of this particular dislocation is always a little difficult, and that in this special case there was a complication that rendered it more than usually difficult, we are still face to face with the fact that several medical men who saw the case made a serious error of observation. Accurate observation is the most difficult of all arts, and only those attain it who cultivate it constantly and with infinite pains and care. In drawing inferences from facts there is room for difference, but in observation we ought to be able to exclude it. This case reminds us once more that the chief aim of medical education should be to make students accurate observers.

We gladly accept the finding of the jury, and we congratulate Mr. HAYWARD on his success. It is certainly more easy to accept this view than the other; it is easier to believe that competent surgeons may have mistaken the prominence of an enlarged acromial end of the clavicle for a displacement of that bone than that equally competent surgeons should have overlooked a dislocation of such a bone, especially when its enlargement would have rendered the recognition of the dislocation more obvious than usual. In the evidence much stress seems to have been laid upon two points which to us appear to be of quite secondary importance. It was urged that a dislocation could not have been caused by the particular injury the man sustained. This is a most fallacious argument to use. In the first place there is nothing more difficult than to determine the exact amount, direction, and character of any given injury, and therefore to base an argument on such an uncertain predicate is dangerous in the extreme. A wide experience makes men very chary of using the word "impossible." Another point upon which stress was laid was that if the alleged dislocation had occurred the man would have been unable to execute a particular movement—put his hand to the back of his head. It is by relying on points of that kind that nearly all mistakes in the diagnosis of dislocations are made. It cannot be too plainly or too often said that a dislocation is in every case to be diagnosed only by the absence of the articular end of a bone from its proper position and by its detection in an abnormal position, and not by alteration in the contour or measurement of a limb or by alteration in the function of the part. If surgeons would fix their attention more rigidly and exclusively on the essential factors of the problem they have to solve, and would realise that right judgment must rest upon accuracy of observation, we should certainly witness less often than

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we do such discrepancies of opinion as were afforded by the evidence in the case of CAMPION *v.* HAYWARD.

IT is idle to ignore the fact that a great deal of unhappiness is often caused by bodily defects which are so slight as to be almost beneath the notice of a medical man; yet in so far as remedies can be found for such trifling ills it is better that they should be intelligently prescribed by those who have had the requisite training and knowledge. It is the neglect of trivial ailments that is often responsible for much quackery, and it is the duty of the medical profession to save people from that resort as much as they can. Therefore, and in reply to more than one appeal from practitioners, we do not hesitate to make a few comments on a subject which is barely mentioned in text-books, but is yet a real source of trouble and annoyance to many. Hair in the wrong place, if it does no worse, reminds us unpleasantly of our remote ancestry. The growth of hair on a woman's chin certainly does not enhance her appearance, and, if we may judge by communications we receive from our readers, there are many of their patients who would wish to be rid of the disfigurement; and the advertisement columns of the lay press contain many announcements of patent preparations for that purpose.

The ordinary components of these so-called depilatories are quicklime, soda, and a combination of sulphur and arsenic. The powder is made into a paste, spread on the face or other part, and washed off as soon as dry. It acts by desiccating and dissolving the hair-shaft, and by reason of its irritating nature in unskilled hands is apt to give rise to troublesome consequences. ERASMUS WILSON narrates the case of a young lady who had been making an experiment of this sort on her forehead for the purpose of getting rid of a tuft which interfered with the then fashionable mode of wearing the hair. She had unfortunately allowed the depilatory to remain on too long, and it resulted in a slough the size of a shilling, followed by an unsightly scar. The safest of such applications is a paste of barium sulphide and starch applied by skilled hands, regulated in strength to the delicacy of the skin. KAPOSI mentions that in the Orient among the Jews a paste is used for the periodical removal of the stubble of the beard consisting of orpiment and slaked lime boiled with water. In this instance the after-growth does not appear until two or three weeks have elapsed, when the application has to be repeated. But all these methods are at best only palliative, for the formative organ remains, and they are all equally apt to be followed by a stronger growth of the hair, and sometimes they give rise to ugly marks and scars. Ointments have been employed, but in general are to be deprecated, for greasy applications tend to promote the growth of hair, as on the backs of the hands when vaseline is used to prevent chapping in cold weather. Nevertheless a strong resorcin ointment, accompanied by powerful friction, has in the practice of a few found favour. The introduction of chromic acid and other caustics into the hair bulb by means of a needle is uncertain on account of the difficulty of regulating the resulting inflammation. Another popular method of disposing of extraneous hairs is by the tweezers, a painful process and, like the preceding and the razor, only temporary.

All these methods, however, are unsatisfactory, and it is to our American cousins that we owe the introduction of the only efficient means for the destruction of hair bulbs. It was an ophthalmologist—MICHEL of St. Louis—who first employed electrolysis with success for epilation in cases of trichiasis, and it was afterwards extended to dermatology by HARDAWAY. The procedure has now become perfected, and has come to be recognised as the least unsatisfactory one for the eradication of superfluous hairs. A blunt needle connected with the negative pole of a galvanic current of one-half to one milliampère or more is introduced into the hair follicle, if possible without injuring it, and the papilla is destroyed by the decomposition products formed, these probably being caustic alkalies. The hair is then either removed or allowed to drop out, and the operation is followed by a minute red mark, which disappears either without a trace or leaving an extremely fine, shallow depression. Very occasionally these tiny scars subsequently take on a keloid growth. But electrolysis is a tedious process, for no more than twenty or thirty hairs can be removed at a sitting, a circumstance which is open to misinterpretation if the patient be not warned beforehand of the number of sittings required; and though these hairs never grow again, others come forward and have to be dealt with from time to time until all are eradicated. But in the hands of a skilled practitioner this method gives a sufficiently satisfactory result in a limited localised tuft, provided the patient does not mind the inevitable little red spots which temporarily appear after each sitting. But if the growth of hair be in any sense diffuse, on the female chin for example, the tiny hairs beside the old ones keep growing up as the others are destroyed month by month and year by year, so that an almost unlimited attendance is necessary. Indeed, so indefinite is the treatment and so frequently do complaints arise on that account, and if the current be not very carefully adjusted so difficult is it to prevent temporary disfigurement, that many professional men of standing refuse to undertake these cases. This determination on their part we believe to be a mistake, as the unsuccoured sufferer flies to quackery.

Electrolysis is the only means known up to the present time which in *capable* hands is able to destroy the papilla whence the hair grows without risk of producing serious consequences. All the other procedures, including those above mentioned, only result in destruction of the hair-shaft, in which case they are not much superior to the razor; or if the cuticle be penetrated widespread suppuration and resulting scars are apt to be produced. It is therefore the bounden duty of practitioners to warn their patients against them and especially against trusting themselves to treatment by these powerful remedies at the hands of unqualified, irresponsible, and often wholly unscrupulous persons.

IT is impossible to withhold sympathy from Dr. NORMAN MOORE in his endeavour to amend and improve the regulations relating to the proposed examination in pharmacology

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at the Royal College of Physicians of London. The difficulty of dealing adequately and fairly with the subject of materia medica has frequently been mentioned in these columns,[1] and more recently[2] reference was made to the relative hardship of the regulations as they stand at present. It may not be inopportune to remind our readers of a few matters of ancient history before dealing with the present, and the future. So far back as 1891 it was felt generally that the examinations in materia medica were not giving satisfaction to anyone concerned. Students were then allowed to present themselves for examination at any date after registration, and, as to a large extent the synopsis covered elementary matters connected with the drugs of the British Pharmacopœia, there was something to be said in favour of early examination. Some students were then, it was presumed, fresh from dispensing in country surgeries, and were to a large extent prepared to state the origin of drugs, to name their active principles, and to answer questions on the composition and dose of the more important pharmacopœial preparations. Unfortunately, however, the synopsis also made mention of "medicinal action," and the interpretation of this term formed the stumbling-block both for students and examiners. It was recognised that the examination was taken before the names of diseases could have any real meaning, and the consequence was that in practice the term "medicinal action" was treated as though synonymous with physiological action. Even in this restricted sense the percentage of rejections was very high, as so many students presented themselves, as empowered by the regulations, when their knowledge of physiology was either rudimentary or non-existent. Complaints showered from all sides; parents protested against the high percentage of rejections, examiners in materia medica complained of the difficulty experienced in applying the same standard to all candidates, and the examiners in medicine were not behind in finding ignorance in prescribing, and even in dosage and composition of important drugs and preparations.

Some change was obviously desirable, and two directions were indicated in which reform might be effected. One was to leave the scope of the examination as it stood, but not to allow students to present themselves until after they had passed the examinations in anatomy and physiology. The other course, which, we believe, received the support of teachers and examiners, was the division of the subject into three parts—pharmacy, pharmacology, and therapeutics. It was suggested that the first subject might be taken at any stage, but that examination in pharmacology and therapeutics should come at some date subsequent to examination in anatomy and physiology. For some reason, which was not very obvious, this scheme was only accepted in part. The subject of therapeutics was linked to medicine, pharmacy became attenuated to a *vivâ-voce*, and pharmacology was suddenly raised to the importance of an independent examination. Interest, therefore, centred in the scope of the proposed examination in this subject, as well as in the definition of the term. If defined in the sense in which the word is employed in foreign countries, the proposed examination became a very serious innovation. The schedule, which appeared in due course, did not tend to relieve anxiety. Under the heading of pharmacology came the words: "The action of medicinal agents on the body in health and disease." It is not stated that this is intended as a definition, but to all intents and purposes it widens the ordinary scope of the term, so as to embrace much of what is commonly understood as therapeutics. In that sense, and in that sense only, we welcomed the schedule as a praiseworthy effort to improve education. Regarding examinations in their proper function—not as so many opportunities for rejecting candidates, but as indications of the course of study which it is most profitable to follow—the scheme of an examination into the action of drugs appeared to be a step in the right direction.

Statistics of the examination in pharmacy show that students now find much greater ease in satisfying the examiners, and it might have been hoped that the same happy result would have attended the examination in pharmacology, but the objection has been urged that candidates may now be rejected twice in what is really one subject. It may be doubted whether this risk is as real as it appears, especially in view of pharmacology being taught when physiology has been mastered. Still, the risk has to be reckoned with, and Dr. NORMAN MOORE'S proposal is intended to remove this objection. He suggests the revival of the term "medicinal action" and its insertion in the schedule of pharmacy, and he proposes to omit a separate examination in pharmacology. He also proposes that the examination in pharmacy shall in future be conducted after the examinations in anatomy and physiology. What "medicinal action" has to do with pharmacy seems difficult of explanation. It is certainly not included under that heading in the definitions in the first pages of most books on materia medica, and from the official standard of pharmacy, the British Pharmacopœia, it is excluded. If these proposals are accepted by the Royal College of Physicians of London, the course of examination and of teaching during the transition stage will become very involved. The task of students and of teachers is not easy when regulations are subject to such frequent changes.

[1] THE LANCET, May 30th, 1891; THE LANCET, Feb. 20th, 1892; THE LANCET, May 6th, 1893.

[2] THE LANCET, Jan. 4th, 1896.

Annotations.

"Ne quid nimis."

THE NEW PHOTOGRAPHY.

ALL sorts of crude ideas seem to be current as to the application in medicine of the new radiations or "x" rays. We had an enquiry from a lay correspondent last week as to where the apparatus producing these new radiations could be obtained, "as it was wanted for a case of consumption." But a very general impression appears to be that the rays have been obtained in such abundance as to be able to permeate through any thickness. This is not so, and the source of the rays must be infinitely more powerful than is obtainable by present means if they are to be capable of assisting in the exploration of remote cavities in the human organism. Excellent photographs have been produced of bodies such as the hand, which are not sufficiently thick to offer a complete resistance to the passage of

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the rays. It is just the same with a thin sheet of glass which is transparent enough to ordinary light, but on increasing the thickness of the sheet a block may at length be obtained which is almost completely impervious to light. Still there is no gainsaying the fact that much good work may be done with the means at present available towards utilising the discovery for surgical purposes. Thus foreign bodies, bullets, &c., have been located with distinctness in the hand, and the extent and position of necroses have been usefully ascertained. We learn also that photographs have been produced of tuberculous affections of finger-joints, and also of one case of a thigh bone attacked with osteomyelitis. In the latter case the method has proved valuable in indicating that the disease known under this name is wrongly considered as a variety of periostitis, since if this were so the bony alterations would have transferred themselves from the surface to the centre, whereas the photograph shows that the surface of the bone is intact whilst the internal layers are destroyed as far as half a millimetre from the surface. During the week it has been announced that the flame of a Bunsen burner and of an ordinary paraffin lamp evolved the same radiation, but in a less degree, yet enough, it is said, to produce more or less distinct photographs of the unseen. But the most remarkable development of Roentgen's discovery is that announced from Rome, in which it is stated that Professor Salvioni of Perugia has just discovered a means by which these radiations may be made to so far assist the eye as to enable it to see through all objects which the rays can penetrate, so that the contents of a closed space are revealed. This discovery, if true, will far outstrip the former one in connexion with its importance as an aid in diagnosis. The nature of these rays is still a puzzle, but the theory which regards them as material radiations seems to be rapidly gaining acceptance. The fact that similar shadow effects may be produced without a Crookes' tube and by merely placing a negative behind the discharger of the induction coil would point to electrical effect. The most intelligible theory is, we venture to think, that suggested by Mr. J. W. Gifford. He likens the Crookes' tube to a vibrating tuning-fork, which, if sounding simple A, would set an A violin string vibrating not only A, but its octave and the fifth to its octave and quite a host of other overtones or harmonics of rapidly decreasing wave-length which would seem to have no theoretical limit. The waves of long period from Crookes' tube would pass through wood, paper, the human body, without much resistance, but would be absorbed or reflected by the denser metals. But if objects capable of taking up their vibrations lay in the path of these long waves they would set them vibrating like the violin-string, and might in the same way produce overtones which did not before exist. These overtones may include waves of such short lengths as to cause the objects themselves to become luminous. If so, the light waves in question, although they are directly instrumental in darkening a photographic plate exposed to them, have nevertheless not passed through, and could never pass through, the obstacles easily traversed by the electric wave which gave them their origin. If this be so, the new photography is in reality electrography.

THE PRESENTATION OF SIR HENRY HALFORD'S LETTER TO DR. SCUDAMORE TO THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT the Comitia of the Royal College of Physicians of London on Jan. 30th the letter of Sir Henry Halford to Dr. Scudamore on the use of the stethoscope [1] was accepted by the President and Fellows, and it was unanimously resolved that this should form the nucleus of a collection of letters from eminent men connected with the profession and with physical science. It was recently remarked by one of our contemporaries that "intimate personal glimpses of a man give us a better grasp of his character and work than reams of his biography"; and there is no doubt but that letters afford such intimate personal glimpses as can be derived from no better source, except perhaps from such verbatim reports as Boswell gave of Samuel Johnson's colloquies. It is true, perhaps, that the greatest men have left the least material for their biographies, and it is only in their works that we find evidence of their merits. There are men, however, like Sir Henry Halford who have left but little to keep them in remembrance, but their influence on their contemporaries and their example were remarkable. It will need much judgment to select from the large number of letters that will probably be offered to the College; but from the words of the resolution it is evident that the professional or scientific value of these letters will decide their acceptance. A very interesting collection will, we hope, be made before long.

[1] Munk's Life of Sir Henry Halford, page 270.

"HEMIPLEGIA AS A RESULT OF GONORRHŒA."

WE are sorry that the manner in which, in an annotation in THE LANCET of Jan. 11th on this subject, we stated our disagreement with the explanation offered by Dr. Bruns in reference to a case observed and reported by him should have led him to believe that we considered any view of his "absurd." It is, perhaps, unnecessary to say that we did not in the annotation referred to make use of this word. We merely stated the difficulty we had in accepting Dr. Bruns's view that an embolus capable of obstructing a cerebral artery of considerable size should have travelled from the region of the Fallopian tubes without getting caught in the lung capillaries, and we suggested an alternative explanation. In the "Manual of Diseases of the Nervous System," second edition, p. 422, Dr. Gowers remarks under the heading Cerebral Embolism: "The source of the plug must be somewhere between the lungs and the brain. ..... It is possible that septic material may pass through the lungs and lodge in the brain, but only capillaries can be obstructed by particles that pass through the capillaries of the lungs, and any local softening of the brain thus produced is usually purulent, a cerebral abscess, or minute points of suppuration." This we believe to be the generally accepted view, and while readily acknowledging that it is comprehensible that Dr. Bruns did not deem it necessary to explain, as he has done in his letter in THE LANCET of Feb. 8th, his interpretation of the pathogenesis of his case, we may perhaps express the opinion that if he had done so it might have prevented misconception, even if his explanation had not carried conviction.

THE SOLDIER'S AGE.

FROM the time of Cæsar to the present day there have always been soldiers who have been able to express themselves in terse and incisive terms and go straight to the point; and, to compare great things with small, we may say that a major-general in a recent communication to the *Times* has gone straight to the point in his remarks on the youth and immaturity of the men composing our army. It is, no doubt, true that, on the grounds of physiology and common-sense experience, men—in common indeed with all animals—sustain fatigue best when fully grown. Youthful soldiers are prodigal of pluck and *élan* and they have sufficient resiliency of constitution to recover quickly, but the youthful soldier has not the physical strength and endurance to make long marches or to undergo the hard work and fatigue which he must sustain from time to time in war and on field service. Generals know that quite as well as medical officers, and when real hard work has to be done they act accordingly. Lord Wolseley

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no doubt selected the Composite Battalion for Ashanti, and Lord Roberts took care to have the troops accompanying him on the march to Kandahar mainly composed of matured men and not striplings. But we must, after all, take our soldiers when we can get them, and we can only recruit them young. After they have been fed and trained, and have served some few years in the army, they make fine soldiers and have always given an uncommonly good account of themselves. A soldier is probably of the greatest value between twenty-five and thirty-five years of age, when the fullest measure of air can be changed in the lungs, and he should in any case be over twenty-one years of age before he is fitted to undertake the frequently prolonged physical exertion required of him in the field. Circumstanced as this country is, the men serving with the colours must be mainly composed of young and immature soldiers; but then we are not in this respect a bit different from other countries and armies. If nations were content with small armies it might be otherwise, but so long as things are as they are we must have a short-service system. In the event of our being engaged in a big war, circumstances will be different to what they have been hitherto; the reserve force which will then be added to the army will consist of physically matured men. The introduction of a short-service system with the other changes which have taken place of late years seem to us to have been essentially necessary, and, notwithstanding all that has been urged against it, no one has been able to point out any scheme that is better and at the same time practicable.

THE CURSE OF LEARNING.

THE *Edinburgh Medical Journal* for January continues the valuable series of papers by Dr. W. Ireland upon Mental Affections in Children, and the subject treated of in this section is the overstrain of examination and the enormous and useless amount of subjects children and all examinees are required to know. We commented last week upon a paper recently set in chemistry at the University of London to candidates for the M.B. degree, a paper which took next to no heed of the medical side of chemistry, and we believe the same evil is paramount in most places. An examiner thinks only of his own special subject. The whole system of teaching is wrong. Take, for example, the London School Board, a body founded for the purpose of "elementary education." This sapient body's idea of elementary education is to teach thirty-six distinct subjects, among which we may mention botany, experimental science, physics, physiology, natural philosophy, object lessons, suitable occupation (!), social economy, and domestic ditto. We do not suppose that any unfortunate child is taught all the thirty-six subjects, but the facts above stated show very well what is the idea of the modern "educationist" (to use his own abominable term) as to what is meant by elementary. To quote Dr. Ireland: "This inordinate desire for examining and being examined is not confined to the medical profession; it pervades well-nigh all branches of learning. In my opinion it has already inflicted enduring injury to many of the studious class in our population, and is likely to go on helping to increase the tendency to exhaustion and irritability of the nervous system. ..... The stamp of talent is put upon the back of heavy diligence and the knowledge certified is of an unhealthy and evanescent character." Every medical man knows how the strain of examinations affects school children, Board and otherwise, and we have no hesitation in saying that the results attained are in no way commensurate with the expense and trouble incurred. Every householder knows what the average modern workman is like. Here and there one finds an intelligent man, and bodies like the Guild of Handicraft in the Mile-end-road turn out craftsmen who take a pride in their work and do it well; but what shall we say of the average gas-fitter, carpenter, or electric-bell man? These apply no common sense nor do they think. Recently we sent for a workman to fix a lead and push to an electric bell. He came and went away. On trying the bell it would not ring. We examined the connexion and found he had put both wires of the lead on to one terminal of the wires connecting the battery to the bell. It had never entered into his head to try if the bell would ring before he went away. This is the result of modern education. Children are taught a smattering of everything and learn nothing. Elementary schools ought to teach nothing but reading, writing, arithmetic, swimming, cookery, and needlework. The religious question is outside our province, and the other thirty subjects had best be relegated to Astolfo's limbo at the other side of the moon.

DEATHS UNDER ANÆSTHETICS.

A MARRIED woman aged fifty-one years was admitted into the Birmingham Hospital for Women on Dec. 31st, 1895, suffering from an enormous ovarian tumour of very rapid growth. She was seen by Mr. Christopher Martin, the surgeon to the hospital, on Jan. 1st, 1896. Both legs were œdematous and there was albumin in the urine. The heart was displaced upwards and to the left. The pulse was rapid (136) and feeble. No murmurs could be detected. She was in a very exhausted condition and a most unfavourable case for operation, but it was obvious that her only chance lay in ovariotomy. On the 3rd she was prepared for the operation. An ounce of brandy was given to her, and the anæsthetic (a mixture of ether, two parts, and chloroform, one part) was administered with Clover's inhaler by the sister in charge under Mr. Martin's supervision. In about five minutes the patient began to show signs of cardiac failure and the administration was at once stopped. Her pulse could be felt at the wrist, but it was slow (60) and feeble. Her breathing became embarrassed and her lips bluish. It was decided to postpone the operation and she was lifted back to bed. She continued to fail, her pulse became weaker, and her breathing finally ceased. All the usual restorative measures (including artificial respiration) were applied, but without avail. Dr. Kauffmann, who made the necropsy, found, in addition to a very large adherent ovarian tumour, that the heart was in a condition of marked "brown atrophy," and that there were signs of old pleurisy on the left side. She evidently died from a combination of causes: (1) her exhausted state; (2) the degeneration of the cardiac muscle; (3) the mechanical pressure of the tumour on the heart; and (4) (only to a limited extent) from the anæsthetic. It seems to us most irregular that under any circumstances the grave responsibility of giving an anæsthetic should be relegated to a "sister in charge." Under the circumstances of the case given above the irregularity becomes even more serious. The patient was clearly in a very precarious condition, requiring a most careful and experienced medical man's attention for the successful production of chloroform narcosis, and yet she was committed to the necessarily irresponsible nurse. Unless the account which has reached us is inexact we cannot feel satisfied that Mr. Martin's supervision makes the case less irregular; and it is transparently plain that a man cannot give his undivided attention to the performance of ovariotomy and the administration of an anæsthetic. The second point is the employment of a closed inhaler, such as Clover's, for the administration of a mixture containing chloroform of the strength of 1 in 3. This proceeding is to court disaster even in skilled hands. The practice adopted cannot be deprecated too strongly. We have also received particulars of a death under chloroform which occurred in St. Bartholomew's Hospital. The patient,

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a boy aged six and a half years, suffered from actinomycosis of the left pleura. From time to time abscesses formed and were opened under chloroform. In September of last year the original empyema had been opened. On Jan. 14th, an abscess having formed in the chest wall, chloroform was administered by the house surgeon in charge by dropping it on lint. This was the fifth time the boy had taken chloroform. When the child was almost under and one and a half drachms had been used the pupils suddenly dilated and respiration stopped. The pulse was felt to be still beating. All the methods resorted to to promote recovery failed, and although artificial respiration was kept up for a considerable time it never elicited any return of natural breathing. The necropsy showed that the left lung was almost completely collapsed owing to the thickening of the pleura, but otherwise no notable pathological condition appeared to have existed. The fact noted that the pulse kept on for an appreciable time after the sudden cessation of the respiration points rather to death from poisoning of the centres than to neuroparesis. The case is important in the connexion that the oft-repeated fallacy that because a person takes chloroform safely once or twice he will do so always receives once more its refutation. Again, the pulmonary inadequacy of the child was a further danger to him. The peril of an overdose through insufficient expiratory force is often overlooked, and in this case it appears probable that the patient's efforts in this direction were at least half the normal and possibly even less than this, and hence the liability to receive an overdose would be at least doubled, in spite of the fact that the risk of absorption was lessened.

MEDICAL CONSULTATIONS BY ORDER OF BOARDS OF GUARDIANS.

SOME guardians rejoice in a pretext for intervention in the medical department of the workhouse or infirmary, their activity usually taking the form of a fussy interest in a patient, who is thereby led to expect great things from the influence of "the committee gentlemen" or even "the board" itself. The medical officers can hardly be expected to regard these proceedings with equanimity, for they are aware that not only is no practical advantage likely to result, but there is also much probability of their being called on to furnish unnecessary explanations and reports. A conspicuous example of this kind has just occurred at Clitheroe, and it does not often happen either that a board of guardians put themselves so much in the wrong or that a medical officer champions his rights and vindicates his position so triumphantly as in this case. One of the workhouse inmates, an imbecile girl in her fourteenth year, suffers from slight knock-knee and has only been able to walk indifferently ever since she was two or three years of age. Some of the guardians imagined "that if she were subjected to special treatment she might be cured by her legs being broken," and with a view to her being transferred to some hospital Mr. Fraser, the medical officer of the workhouse, was asked for his opinion as to the girl's condition. Having reported on Jan. 20th that the case was unsuitable for admission into a hospital, he received from the clerk of the guardians a letter stating that on receipt of the report the guardians had passed a resolution requesting him to call in two medical men, whom they named, to assist him in examining the patient and to report subsequently whether there was any chance of her being benefited by special treatment. Mr. Fraser very properly ignored the resolution of the guardians, but consulted Dr. J. M. H. Martin, senior surgeon of the Blackburn Infirmary. This gentleman was of opinion that the patient's difficulty in walking was partly dependent on her mental condition and that no improvement was to be expected from an operation. Having fortified himself as regarded the surgical aspect of the case, Mr. Fraser next proceeded to investigate its legal side. He wrote to the Local Government Board, and in the reply to his letter was informed "that the guardians are empowered, if they think it desirable, to employ independent and competent practitioners, *not being medical officers* of the union, to report to them upon the condition of" the patient. Mr. Fraser also had a case submitted to Mr. A. MacMorran, a well-known legal authority on Poor-law questions, author of "The Public Health Act, 1895," and also co-editor of the leading work on the Poor-law Consolidated Orders. Mr. MacMorran said: "I am of opinion that the guardians cannot require the workhouse medical officer to meet any other medical man in consultation. The duties of a workhouse medical officer are prescribed by the General Consolidated Order of July 24th, 1847, and there is no mention in that order or in any subsequent order of such consultations in cases like that before me." Mr. Fraser thereupon pointed out to the board of guardians that the resolution passed by them was in excess of their powers, but his remonstrance, though firm, was perfectly courteous, and he was willing, if they still wished for a further opinion, to meet in consultation on the case any surgeon of professional standing and experience who holds a position on the staff of any public hospital. The guardians at their meeting on Feb. 3rd admitted their error and retreated from their untenable position. Mr. Fraser is to be greatly complimented on his public spirit and on his energy in clearing up certain legal points which are of much interest to Poor-law medical officers.

TO THE DEGRADATION OF THE SPECTATOR.

IN these modern days of boasted civilisation it seems a pity that some restriction cannot be put upon such exhibitions as that which is at present one of the items of the programme at the Royal Aquarium. A man is shown in a condition of trance produced by hypnotism, in which state it is proposed to keep him for thirty days, more than twenty having already passed. The subject is twenty-nine years old, and a well-built man; he was, when seen, lying flat on his back with his limbs stretched out in an easy position and his head turned a little to the right. His face was pale, with a slight pink flush on each cheek, and his appearance gave the observer the impression of a man who had been ill for some time. His pulse was 52, quite regular, and of fair tension. Respirations were chiefly abdominal, and were 8 to the minute and regular. Occasionally he gave one or two deep sighs like a man about to wake, and in these the thorax was more actively moved. His larynx was occasionally raised as the act of swallowing was involuntarily performed. Slight twitching of the eyelids and an occasional twitch of the legs were the only visible movements. The eyes were closed, and on opening them the eyeball was turned upwards and outwards, and the pupil was dilated. His temperature that morning was recorded to have been 97·2° F. He is fed with peptonised milk through a tube, and it was said that he is getting about a pint a day. The above is a short description of the performance which is conducted as a public exhibition. At stated intervals in the day the hypnotist gives lectures on the subject and demonstrates the insensibility of the man to an admiring audience, and in his absence an assistant takes charge. A medical man also sees the subject at intervals and signs bulletins as to his condition. Apart from the disgusting nature of any such exhibition there is no doubt a certain element of danger, and if anything were to happen to this man it would be interesting to know who would be mainly responsible. The assistant, who is there a great deal by himself, states that he has no orders

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to look out for any special symptoms, and, moreover, it may be doubted if he would recognise them if they occurred. The hypnotist himself, when pressed for an answer as to what he would consider dangerous symptoms, was not very precise, though he confessed that a pulse much below 39 and breathing 3 per minute would not be pleasant, but he carefully made a loophole for himself by stating it would depend on the opinion of the medical man. It must, however, be admitted that he is quite a physiologist, as he gravely informed us when pressed about the rate of the pulse that "some people had naturally a slower pulse than others." It is, in truth, high time that such public exhibitions were stopped; to science they are of no purpose, to the subject they are dangerous, and to the public they are demoralising. It is indeed a pity that any medical man should so far lose his self-respect as to encourage them.

THE MANNERS OF A COUNTY COUNCILLOR.

AT the usual weekly meeting of the London County Council, held on Tuesday last, the question of paying £75 to Dr. Corfield for evidence given on behalf of the Council at a Local Government Board inquiry into the water companies' regulations came up for consideration. In the discussion which followed Mr. Burns is reported as saying that Dr. Corfield "had disgraced his profession by blackmailing a public body." We hope, indeed we are sure, such language is not commonly used by county councillors; but, in the report of the proceedings as given in the *Times* no one seems to have taken any notice of it. To have said "swindling" or "defrauding" would have been indefensible, but the word "blackmailing" implies the lowest depths of infamy. Dr. Corfield is no doubt able to defend himself, and we are glad to see that it was agreed that he should receive the full sum, but we think Mr. Burns ought to apologise for the use of such a shameful remark.

"SWEATING" IN GERMANY.

THERE is a strong agitation throughout Northern Germany against the sweating system. It is especially in the making of clothes that the worst features of this system are manifest. This is exactly what we insisted was the case when we raised a similar agitation in England. The giving out of work to be made up in private houses, we then explained, led to terrible abuses. In the privacy of a home child and even infant labour could be employed to help. The clothes were also frequently contaminated by unwholesome domestic surroundings, it being especially to the interest of the workers to conceal the cases of scarlet fever and other infectious fevers that might occur in the family. Indeed, the unfinished garments were sometimes used to cover the patients as they lay in bed in the very room where the rest of the family were at work. In Berlin, Hamburg, Breslau, and other towns strikes have commenced against the sweating system. At Berlin the first burgomaster has received a deputation from the largest mantle makers of the capital asking him to act as a mediator between them, the sweaters, and the workpeople. Although the chief blame rests with the middleman or sweater, yet it is also the fault of the merchant tailors, mantle makers, and others, who instead of opening properly built workshops prefer to employ a middleman. It would make a very great difference if the money paid to this middleman went directly to the workers; but as it is out of this sum that he "sweats" his profit a very meagre share remains for them. A widow the mother of three children, engaged in mantle-making by a Berlin sweater, writes that she is only paid 8*d*. for making a jacket. By working incessantly from four in the morning till eleven at night she is able to turn out two jackets and thus earn 1*s*. 4*d*. a day to keep her family. Living is not cheap at Berlin, and it is not necessary to insist how such overwork and under-feeding must prove destructive to health. It is high time that there should be a Factory and Workshops Act in Germany which would include home labour and limit the hours of work to ten, at least as far as women are concerned. But it would be better still to abolish home work altogether. So long as clothes are made in the overcrowded homes of the poor there will always be the risk of contamination. The public who purchase and wear the clothes have the right to say how these clothes shall be made, but this can only be done through the instrumentality of their representatives in Parliament. At the commencement of his reign the present Emperor on several occasions expressed his eagerness to bring about such social reform as would assure greater material prosperity among the mass of the people. The present agitation against sweating affords an excellent opportunity for effecting reforms of this description. The German Government will, we trust, strike while the iron is hot and initiate legislation on the lines we have indicated.

"THE ENGLISH LAKES."

THE mere mention of the English lakes will awaken in the minds of many people emotions of pleasure and visions of picturesque landscape, with lovely valleys, majestic hills, and the ever-changing aspects of land and sky. "The English Lakes,"[1] by Mr. Hugh Robert Mill, D.Sc., however, records the details of a bathymetrical survey; nevertheless, although it does not deal with the matter from an artistic point of view, any addition to our knowledge, either geographical or geological, of the beautiful lakes situated in the mountainous region of north-western England will be welcomed by both men of science and travellers. As Mr. Mill remarks, when scientific surveying reaches such a high level of efficiency as it now does in this country, it is neither rational nor right that the best maps should show the minutest details on land and only meaningless lines on the water. This defect in the maps of the lake district he has remedied in a very able manner. The maps, which are taken from the Ordnance Survey, are on a scale of two inches to the mile and are clearly printed. They are accompanied by cross and longitudinal sections of the lakes. The letterpress, which is full and complete, is embellished with a number of illustrations showing the physical features of the lakes.

NOTTINGHAM BURIAL GROUNDS.

DR. PHILIP BOOBBYER, the medical officer of health of Nottingham, has recently prepared a very interesting report on the cemeteries and burial grounds of that city, the information having been called for by way of evidence to support a local scheme of extra-mural interment. Nottingham possesses nine burial grounds at present in use, covering a total area of fifty-four and a half acres, the oldest being St. Peter's churchyard, Radford, which has been open since 1553. It is three and a half acres in extent and is very much overcrowded, being estimated to contain from 13,000 to 14,000 bodies. Bulwell churchyard was opened in 1621 and has been four times extended, so that it now includes four acres; from 20,000 to 25,000 bodies appear to have been buried here. The seven remaining places of interment have been opened subsequent to 1830. Of these the General Cemetery, opened in 1837 and covering eighteen acres, is the most considerable. It is situated almost in the heart of the town and no fewer than 81,074 bodies have been buried there under circumstances of much overcrowding, the graves being packed as closely as they will lie, each with an allowance of only sixteen superficial feet instead of the thirty-six superficial

[1] Published by George Philip and Son, London and Liverpool. Price 3*s*. 6*d*.

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feet required by the regulations which were issued by the Home Secretary in 1857 and 1863, but were unfortunately not made applicable to burial grounds in use before the passing of the Burial Acts. In the fifteen acres of the General Cemetery which have been already used there have been laid an average of 5400 bodies to an acre and, strange as it must appear, the authorities consider that there is space for at least 60,000 further burials, which would imply an ultimate accumulation of 8000 bodies per acre. Dr. Boobbyer is of opinion that the amount of land in Nottingham laid out and still available for burial purposes may be reckoned at eleven acres, and as the average annual deaths are 4000 it follows that, roughly speaking, about two acres of cemetery space are required every year. He therefore recommends that two fresh cemeteries should be provided, one in the outskirts of Sneinton and the other adjacent to Bulwell. He remarks that a new cemetery would not be complete without a crematorium, and adds that such a structure should be under the management and control of a public rather than a private corporation. Sneinton churchyard, which is now available only in exceptional cases, is supposed to have been in use since about the twelfth century.

A CRUEL TRICK.

No practice, however discreditable, is entirely beyond the possibility of plausible excuse. Be it never so irrational and fallacious, we may rest assured that the plea of not guilty will always be supported by some show of argument. The practice of cruelty constitutes no exception to this rule. It may be doubted, however, if any but its actual perpetrators could be found to defend such conduct as that which recently led to the conviction of two horse-dealers at Wakefield. Their offence was that of "nicking" horses. This process it appears consists in incising the flexor muscles underneath the tail, this organ being afterwards held up by means of a rope carried over a pulley, with the object of giving the tail a fashionable upward "set." As the desired result is not very rapidly attained the pain and fatigue imposed on the animal thus treated is considerable, and a sentence of £6 fine and £7 1*s.* 6*d*, costs imposed on each defendant in the action in question was certainly not excessive in its severity. Such a proceeding is not only unjustified by any plea of necessity or utility, but it must in some degree injure the animal by inflicting upon it a permanent deformity. It amounts, moreover, to a species of fraud, for it is doubtless intended that the artificial "set" of the tail should be accepted as a natural production and a mark of spirit and stamina.

THE PROPER TEMPERATURE FOR VAGINAL INJECTIONS.

THE *Leeds Evening Express* of the 6th inst. contains the report of a case tried in the Leeds county court in which the principal question at issue was whether or not water of too high a temperature had been used by a medical man as a vaginal douche in the treatment of hæmorrhage. Several witnesses swore that they asked the medical man if the water was not too hot and he made no reply. The witness who gave him the water swore that it was boiling and that she had told the medical man so. As a matter of fact, some large blisters appeared subsequently on the patient's body, and it was alleged that they were produced by the excessively hot water used. The county court judge found that the water used was scalding and not fit to use, and that it did cause the injuries complained of. He did not find that it was necessary to use such hot water to save the woman's life. He held that the medical man was guilty of malpraxis because he did not observe that the water was scalding, and damages to the extent of £15, less the medical man's claim of £3 10*s.* for medical attendance, were awarded. It appears from the report that the patient was confined on Oct. 21st last, and that the hæmorrhage, for which the injection of hot water was used, occurred on the fourteenth day when she got up—that is to say, it was a case of secondary post-partum hæmorrhage. The medical man was sent for at 2·30 in the afternoon, but he did not go at once "as he was busy in his surgery, and had other cases to attend to." He did not actually see the case, according to the report, till a quarter past five. By his own account the patient was then pulseless, and he thought *in extremis*. He then used the injection of hot water complained of. The lesson of the case is that in cases of hæmorrhage, especially occurring not long after a confinement, it is wise to attend at once, if in any way it is possible to do so; and also that water to be used for vaginal and uterine injection should be carefully tested first with the hand thoroughly *immersed* in it. The temperature of the water should not exceed 120° F., but the hand is the readiest test, and for this purpose as reliable as any thermometer.

PRESENTATION TO DR. W. M. DOBIE.

THE inhabitants of Chester have marked their appreciation of Dr. Dobie's labours among them during the past forty years by presenting him with a portrait of himself in oils, painted by Mr. Ouless, R.A. The presentation was made in the Town-hall, Chester, in the presence of a large and distinguished company, presided over by the Duke of Westminster. Too often the labours of medical men are left unrewarded, and it is gratifying to us to be able to record a testimony of gratitude on the part of the public for the devotion to duty shown by any individual member of the medical profession. Dr. Dobie became honorary Physician to the Chester Infirmary in 1875, which post he resigned in 1894 and was appointed consulting physician in the following year. He was vice-president and subsequently president of the Chester Society of Natural Science and Literature, from which institution he received the Kingsley medal. In 1883 and 1892 he was elected president of the Chester Medical Society, and a few years ago was made a Justice of the Peace.

THE LOCAL GOVERNMENT BOARD AND THE ISLINGTON GUARDIANS.

BUT for the chance of some happy accident there seems to be a possibility of the great parish of Islington making another huge mistake in the matter of workhouse accommodation. Our readers are aware that for some time past the guardians, or rather a majority of the guardians, have shown great reluctance to realise the gravity of their defects of accommodation and the inadequacy of their medical and nursing staff. They seem to have been more concerned in the enjoyment of defying the Local Government Board than in making decent provision for the poor committed to their charge. At their meeting on June 30th a letter was read from the Local Government Board, which seems to be regarded in some quarters as a concession to the defiant section of the guardians. And it certainly reads too much like this. But whoever gets satisfaction out of this apparent concession, the public of Islington are likely to have to pay dearly for it. The Local Government Board enclose a report by their assistant inspector, Mr. Herbert, after his visit on Jan. 13th, showing an overcrowding of the infirmary to the extent of 186, or 38 per cent. Mr. Herbert remarks that this appears to him "to be very serious." So it appears to us. The workhouse itself contained 886 persons, being certified for only 781. The guardians themselves had partially realised this overcrowding and sent 70 healthy aged men to Bowes Park and 50 able-bodied men to the Salvation Army Colony. The guardians have a little scheme for buying adjoining property and getting a temporary increase

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of accommodation. But the Local Government Board "are strongly of opinion that the scheme of infirmary extension as proposed by the guardians will be unduly costly, having regard to the limited accommodation which can be provided under the scheme and inadequate for the requirements of the parish for the in-door poor." It will be a serious thing for the public of Islington if at a great cost neighbouring property is bought up only to supply accommodation which in a very few years will be inadequate. Yet the Local Government Board have so far given way. They invite the guardians to further consideration of their inspector's report of the great mortality of the infirmary and other facts. They say that the adoption of the scheme of the guardians will be an unfortunate one in the interests of the parish. They will not withhold their assent to the scheme "as an instalment of the further accommodation required," and provided that the Board are given assurances of early possession &c. Clearly the Local Government Board have ulterior views as to building a workhouse at Bowes Park or on some other site. The guardians will incur a heavy responsibility if they patch up the present buildings at a great cost and in a few years find themselves compelled to begin *de novo*. This will be a poor compensation for any short triumph over the authorities of the Local Government Board, who in this controversy represent true economy and the interest of the sick poor.

A NOVEL SUGGESTION.

AT the meeting of the Bath town council held on Feb. 4th it was recommended, in accordance with the report of the Baths Committee, that the council should advertise for a manager of the baths at a salary of £250 a year. A member suggested that a medical man should be appointed to the post. It was not mentioned in what way he would be required to act, except that the fees paid according to a tariff should be paid into the city treasury. It is, therefore, to be presumed that the medical manager would have been required to supervise the bathing establishment, diagnose the cases, and prescribe the variety of bath to be taken. The members who made this proposal have an idea that the present generation of medical men in Bath receive very generous remuneration. Unfortunately, when this suggestion was first made at the Baths Committee the only member of the profession on the council now in practice was absent. An alderman described the proposal to appoint a medical man as manager of the baths as flagrant nonsense and protested against the medical men of Bath being considered as a band of marauders or set of professional pickpockets. The fees, he added, were the same as they were thirty years ago. An amendment that either a layman or a medical man be appointed was defeated, seven only voting in its favour, and the recommendation that a general manager be elected was carried. The council are to be congratulated on their action, as had a medical manager been appointed it would scarcely have failed to have caused endless friction with the members of the profession who have patients using the baths.

THE SCOTTISH POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

WE congratulate the members of our profession holding parochial medical appointments in Scotland on the recent formation of an association for mutual protection and support. As mentioned in THE LANCET of Dec. 21st, 1895, the first meeting was held in Glasgow on Dec. 9th, and the inaugural dinner, a report of which appears in another column of our present issue, took place in Glasgow on Jan. 31st, the chairman and principal speaker being Dr. William Bruce of Dingwall in Ross-shire, the direct representative of Scotland in the General Medical Council. We heartily sympathise with the objects of the society and trust that it may have many supporters.

SMALL-POX AT CARDIFF.

THE Vaccination Committee of the Cardiff board of guardians has passed a resolution advising the appointment of six assistants to the vaccination officer to make a house-to-house inspection in order to discover the number of unvaccinated children in the town. This is a step in the right direction and one to be commended to the notice of boards of guardians in other large towns.

STREET NOISES.

WE are glad to see that the worm has begun to turn, and in saying this we hope that Mr. H. C. Mitchell, manager of the Consolidated Bank, 450, Strand, will pardon us. He made an application to Mr. Vaughan upon Tuesday last to know if nothing could be done to stop the annoyance caused by newsvendors' shouting. Mr. Vaughan expressed his deepest sympathy, but said he could do nothing. We are accustomed to this kind of answer from Ministers, but we did expect more from a magistrate. If the law can do nothing the law must be altered. We can fully sympathise with Mr. Mitchell, but besides the nuisance he complains of there are others innumerable, for instance the discordant piano-organ. The remedy is easy—every hawker of buttons, brooms, and other articles has to have a hawker's licence; and licensed hawkers are a harmless race. Let a short Act be passed making it necessary that anyone who makes a noise of any sort in the streets for the purpose of earning a living should pay for a licence to do so. Thus a licence to shout "winner" or "'orrible slorter" should cost £10 a year, one to grind a piano-organ £25, and a German band—well, say, £200. It is no matter for joke or laughter—the constant irritation caused by these pests breaks down men's minds and bodies, and the Government which stops the nuisance will go down to posterity in company with the most beneficent of past times.

THE EAST LONDON WATER INQUIRY.

THE departmental inspectors appointed to inquire into the shortness of the water-supply in the East end of London last summer have issued and presented their report to the Local Government Board. Its conclusions are in striking agreement with a summary of the position which we drew up in THE LANCET of Oct. 12th last year—indeed, as a reference will show, the annotation we allude to proves to have been a very fair forecast of the conclusions and recommendations which Colonel Ducat, R.E., and Dr. Barry have just published. Thus they report that owing to the combined effects of frost in the winter and of prolonged drought in the summer a "maximum strain" was put on the resources of the East London Water Company, but that this maximum strain would probably not have been reached had not the London County Council blocked the proposals of the water company to extend their storage capacity some years ago. The scarcity of water for drinking was, in the inspectors' opinion, due to a large number of unrepaired pipes on the consumers' premises and to excessive use of water for garden purposes, and the inconvenience experienced by many consumers would to a large extent have been obviated by proper provision for domestic storage. With a supply that is liable to be intermittent cisterns become a necessity, but every care should be taken that these should be situated and constructed in accordance with the highest sanitary demands. The inspectors recommend the adoption of a tight box, consisting in reality of a capacious enlargement of the service pipe, so that dirt could not gain access and exposure to unhealthy environment would be

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reduced to a minimum. We still maintain, however, that for the exclusive purpose of a drinking supply water direct from the main should when possible be drawn. This does not mean the abolition of cisterns or of some means of domestic storage, for the service pipe may be made to branch into two, the one to feed the cistern and the other to supply directly to the tap. The consumer would then have only to resort to the cistern supply when the main for some good reason or other is turned off. Then water, brilliant and sparkling under the influence of the pressure of the main and free from the risks of contamination of exposure, would with few exceptions be available.

AN UNSATISFACTORY VERDICT.

IT is a familiar commonplace that a coroner's inquiry often falls short of success in its primary and essential function—the ascertaining of the cause of death. At West Hartlepool the coroner lately had occasion to investigate the circumstances, leading up to the death of a lad fourteen years of age, who on Jan. 30th was engaged in his usual occupation of wheeling an old man about the streets in a bath chair, and retired to rest about 9 P.M., being then in good health and spirits. At 3 A.M. and again at 7 A.M. on Jan. 31st he complained of great thirst and also of feeling unwell, and was each time given a little water, which he drank. About 9 A.M. as he still felt very ill his mother gave him some tea and sent for a medical man, but before he arrived the lad expired quietly, and, as it seems, only a few minutes after taking the tea. On Feb. 1st Dr. Gray, who was instructed by the coroner "to see the body of" the lad, found it "laid out and dressed" in the room where he had died. Everything had been removed from the room except the bed, but an examination both of the furniture which had been in use and of the clothing worn by the deceased did not result in the discovery of any bottles, sweets, or other articles capable of throwing any light on the fatal issue. The body was fairly well nourished, bore no marks of violence or injury, and did not emit any odour suggestive of volatile poison. At the inquest Dr. Gray, being asked by the coroner for his opinion as to the cause of death, very properly replied that it was impossible to specify the cause of death without a post-mortem examination. The jury thereupon, after a short consultation, returned a verdict of "Death from natural causes." A verdict such as this is not a protection against crime or misadventure and obviously is of no public utility.

As we have already announced, there will be a debate at the next meeting of the Pathological Society of London on Tuesday, Feb. 18th, at 8.30 P.M., on the subject of Non-suppurative Ankylosis of Joints. It is also intended to have an exhibition of specimens illustrating this subject. The discussion will be opened by Mr. William Anderson, and Mr. Howard Marsh, Mr. Davies-Colley, Dr. Griffiths, Mr. Bowlby, Mr. D'Arcy Power, Dr. Pye-Smith, Dr. Pasteur, and many other members of the society have signified their intention of taking part in it.

A PUBLIC meeting on behalf of the University College of Wales was held in Cardiff on Feb. 5th under the presidency of Lord Windsor, with a view to raise £20,000 required to meet conditional grants from the Treasury and the Drapers' Company in aid of the building fund of the college. Subscriptions amounting to £13,400 were promised, including one of £2500 from Lord Windsor.

ON Monday next, Feb. 17th, a dinner will be given in the Grosvenor Rooms of the Grand Hotel, Birmingham, to Sir Willoughby Wade in celebration of his recent knighthood.

WE understand that the subscription list to the Sir Joseph Lister Portrait Fund, to which a generous response has been made, will be closed shortly. Subscriptions may still be forwarded to Mr. Davies-Colley (Treasurer), 36, Harley-street, W., or to Mr. Bilton Pollard (Secretary), 24, Harley-street, W. It is proposed that the portrait, by Mr. Ouless, should be placed by the side of the portraits of Sir John Hunter and other great surgeons of the past in the rooms of the Royal College of Surgeons.

MR. GEORGE COWELL has retired from the surgeoncy of the Westminster and Royal Westminster Ophthalmic Hospitals after twenty-seven and twenty-five years' service respectively. He has been nominated to the post of consulting surgeon in both institutions. Mr. Cowell has also been elected one of the joint treasurers of the Royal Westminster Ophthalmic Hospital in the place of Mr. G. B. Hudson, M.P., resigned.

DR. NICOLSON, who has been appointed, as we have already announced, one of the Lord Chancellor's Visitors in Lunacy, was on Jan. 30th presented with a splendid silver punch-bowl by the officers and staff of Broadmoor Criminal Lunatic Asylum, the superintendency of which he now vacates.

AMONG the list of measures mentioned in the Queen's Speech is one for amending and consolidating the law relating to public health in Scotland and another for amending the law with respect to the supply of water to the metropolis.

THE Duke of Fife, the Earl of Durham, Lord Aldenham (Mr. Hucks Gibbs), and others, have signified their willingness to act as stewards in support of the Prince of Wales at the dinner to be held in May in aid of the funds of Guy's Hospital.

WE greatly regret to have to announce the death of Mr. A. T. Collum, M.B., F.R.C.S, which occurred on Feb. 12th in Charing-cross Hospital. The deceased, who was assistant surgeon to the hospital, died of septicæmia.

SIR JOHN WILLIAMS, Bart., M.D., has been appointed Physician-Accoucheur to H.R.H. the Duchess of York, and Dr. Robert W. Burnet has been appointed Physician-in-Ordinary to H.R.H. the Duke of York.

MR. W. S. COLMAN, M.D., M.R.C.P. Lond., has been appointed Assistant Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, vice Dr. J. R. Bradford, F.R.S., resigned.

THE anniversary dinner of the Medical Society of London will be held in the Whitehall Rooms, Hôtel Métropole, on Saturday, March 7th.

PRESENTATIONS.—Dr. James Taylor of Belfast has been the recipient of a handsome gold watch for his instructive lectures on First Aid to the members of the Ladies' Ambulance Class at Belfast.—Mr. W. G. Grace, L.R.C.P. Edin., M.R.C.S., was last week entertained at dinner at the Clifton Club, the Duke of Beaufort presiding, when he was presented with a valuable gold watch, and a cheque representing the Gloucestershire contributions towards his testimonial fund, and Mrs. Grace was the recipient of a silver coffee kettle. The Gloucestershire county subscription towards the fund has closed at £1407 5s., and the authorities have joined the Marylebone Cricket Club in an investment sanctioned by both committees.

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THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER VII.

The Action against the Hope Fire Assurance Company.—Payment in Full of Wakley's Claim.—Effects on his Future of the Outrages in Argyll-street.—An Unsettled Period.—The Inception of THE LANCET.

ON June 21st, 1821, the trial of the action of Wakley *v.* Barron and others, being an action to enforce the payment of a claim for loss by fire upon a policy underwritten by the defendants in their capacity of directors of the Hope Fire Assurance Company, was commenced in the Court of King's Bench before Lord Chief Justice Abbott, afterwards Lord Tenterden. Wakley's claim in detail was set out under the following heads:—Household goods, linen, wearing apparel, wines and liquors, printed books, and plate in his dwelling-house, £990; fixtures, £60; china and glass, £150—a total sum of £1200. Mr. Denman (afterwards Lord Chief Justice Denman), Mr. Curwood, and Mr. Adolphus were counsel for the plaintiff, while Mr. Marryat, Mr. Gurney, and Mr. F. Pollock (afterwards Chief Baron Pollock) were entrusted with the defence. Mr. Denman opened the case on the lines indicated by the depositions contained in Mr. Gardiner's pamphlet. He pointed out that the plaintiff was a young and successful man, the son of one wealthy man and the son-in-law of another, so that he could not be reasonably supposed to have been in urgent want of ready money. Yet no other motive could have been present, supposing him to have burned down his own house, for with his house and surgery went not only his practice but goods to the extent of £400 in excess of the sum for which he was insured—the smallest estimate of Wakley's loss being £1600, while the terms of his policy only allowed him to claim £1200. Counsel explained the doubling of the sum insured—which until May, 1820, had been only £600—at so short a period before the fire by pointing out that the increase was due to his client's marriage. Just before that event he had purchased furniture, plate, and china, and largely increased his wardrobe, while his wife had brought with her a great quantity of household linen, clothes, and other personal effects. Mr. Denman then read Wakley's sworn statement as to what had occurred on the evening of the fire, which was practically identical with his deposition in Mr. William Gardiner's pamphlet.[2] He concluded his opening speech, which was recognised in legal circles at the time as a very fine, lucid, and convincing piece of pleading, by saying that this statement, extraordinary as many of its details must appear, could not have been invented by the plaintiff for any motive; therefore the jury should receive it as a statement of the facts. The defendants, as trustees for others, must not be "discommended" for resisting the plaintiff's claim until the transaction was fairly and candidly sifted to the bottom. As he was able to prove every word of his opening statement he anticipated with confidence a verdict in his client's favour.

The following witnesses were then called: Mr. George Thompson, Wakley's next-door neighbour; Mr. Samuel Parker, his opposite neighbour, to whose house he was taken by Mr. Thompson after his escape from the burning house into that gentleman's premises; and Wakley's two servants. Their evidence was practically in accord with the sworn depositions previously published in Mr. Gardiner's pamphlet,[2] and remained unshaken upon cross-examination. It is, perhaps, advisable to remind the reader that the plaintiff himself in the year 1821 was not able to go into the witness-box on his own behalf, otherwise this elaborate support of Wakley's deposition would not perhaps have been needed.

Three very important witnesses were then called. Mr. Joseph Ashelford, an upholsterer, swore that the value of the furniture in 6, Argyll-street, a house, by the way, with a rental of £140, was £735. This does not seem a disproportionate sum when it is remembered that a rental of £140 in those days would be equivalent to one of £300 now, that the house was by no means small, and that much of its furniture had been purchased with the view of fitting it out for the reception of a bride—a period when some lavishness of expenditure is the universal rule. Mr. Samuel Malleson, from whom Wakley purchased the practice in Argyll-street and certain furniture, testified to the fact that the practice, when he was obliged through ill-health to sell it, was worth about £700 per annum. He had actually received £690 during the year 1818, his last year in full work and when he was already failing in health, this sum being exclusive of book debts. During the first seven months of 1819, i.e., the seven months preceding the transfer of the practice to Wakley, £560 had been received. Archdeacon Woollaston, the previous tenant of 6, Argyll-street, testified that he had sold certain furniture in Argyll-street for £300 to the plaintiff. Mr. Goodchild, the plaintiff's father-in-law, proved that he had given his daughter a trousseau of the value of £300 on her marriage. Certain patients were called to prove that Wakley had a good practice, as good as or better than his predecessor's connexion, and could have been in no want of ready money as they actually were his debtors for attendances, the accounts for which had not been rendered to them. A few of his personal friends and acquaintances testified to the fact that the house was originally handsomely furnished, and that marked additions to its contents were made at the time of the marriage. There was, in fact, general evidence that the young couple had started housekeeping with a profusion of plate, glass, and linen in a very comfortable, and even luxurious, home.

A statement was then made showing that the plaintiff had lost over £1600 in goods, vouchers for £1050 being forthcoming. The prices of some of the goods, as valued for Wakley by his solicitors, make curious reading nowadays, and certain of the articles of attire take us straight back to the heroes of "Pride and Prejudice" and the heroines of "Sense and Sensibility." A handsome 6 ft. by 7 ft. bedstead with mahogany carved and panelled feet, pillars, and brass castors; handsome chintz furniture with French draperies, lined with pink silk fringe, &c., new (£47 2*s.* 11*d.*), give an old-world flavour to the catalogue; and this sumptuous couch had further attached to it a straw palliasse (£2 10*s.*). a brocaded wool mattress in a brown holland case, ticked border (£6 6*s.*), and a prime goose-feather bed in a bordered tick and bolster and two pillows (£16 16*s.*). Seventy pounds in all for the bed in the front bedroom! Ten imitation rosewood cane-seat chairs with brass ornaments (£12 10*s.*) and ten horsehair cushions to same (£4 10*s.*), make us shudder a little for the prevalent taste in drawing-room upholstery; but a handsome polished steel fender and fire-irons (£12 12*s.*) remind us that if our ancestors paid heavily for the equipment of their fire-places they obtained in return beautiful and lasting metal-work and not the rubbish that most of us are putting up with at the other end of the century. A dozen forks and spoons priced at 28 guineas serve to remind us that silver was of account in those days, but four silver

[1] Chapters I., II., III., IV., V., and VI. were published in THE LANCET of Jan. 4th, 11th, 18th, and 25th, Feb. 1st and 8th respectively.

[2] THE LANCET, Feb. 8th, 1896, p. 373 et seq.

[3] Ibid.

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candlesticks at £17 16*s.* might be a bargain at the price at the present moment, so beautiful was some of the more elaborate Georgian plate. The list of books that were burnt is interesting, as showing the bent of their owners' minds and also the fashion of the day with regard to gift-books. To Mrs. Wakley must be attributed a distinct taste for verse, for we feel sure that it was she who sustained the loss of Bloomfield's, Campbell's, Parnell's, Akenside's, Rowe's, Montgomery's, Shenstone's, Collins's, and "A Lady's" poems. The poems of Shakespeare, Burns, Milton, and Keats were probably her husband's, as certainly were "The Automaton Chess Games," "The Chess-player," "The Letters of Junius," Count Volney's "Ruins," the works of Cicero, and "The Castle of Otranto." Wakley's medical library was a large one for the time, for in 1820 there were not special monographs by numerous authors on every subject. He seems to have possessed many of the standard medical works of the day, and the total value of books destroyed by the fire was a little over £100. The wardrobe of the young couple was extensive. Wakley, who was all his life from youth upward a remarkably well and carefully dressed man, had twenty pairs of trousers of various sorts, including nankeens and Russian ducks; and among other quaint articles of attire he sets down the loss of six pairs of black silk gloves and of eight purple silk and seven green silk handkerchiefs. Mrs. Wakley's clothes were on a still more lavish scale. We find enumerated thirty-three dresses, *lingerie* in profusion, and quantities of lace, ribbons, shawls, and kerchiefs. A long embroidered white scarf is the identical article of attire without which the young woman in the steel frontispiece to the gift-books of the day was never depicted, but what a pair of purple morocco boots were like imagination fails to tell. Nor can we now clearly understand why the fantastic footgear should be only 12*s.* and the reasonable wrap £7 10*s.* The value of Wakley's clothes is set down in the statement of claim as £144 7*s.* 6*d.* and that of his wife's at £346 17*s.* The £1600, which the plaintiff claimed to have lost, was made up in the following way:—Furniture, £735 8*s.* 11*d.*; plate, £168 10*s.* 6*d.*; linen, £101 11*s.*; books, £104 3*s.* 6*d.*; china and glass, £163 14*s.* 2*d.*; Wakley's wardrobe, £144 7*s.* 6*d.*; and Mrs. Wakley's wardrobe, £346 17*s.*; making in all a total of £1764 12*s.* 7*d.* From this £100 was deducted as the estimated value of the salvage. None of the plaintiff's witnesses were seriously cross-examined, and hardly an attempt was made to shake the jury's confidence in either their *bona fides* or veracity.

The line of the defence was that the claim was a fraud, and that goods to the value specified had not been lost; but the suggestion that the house had been fired by any of its inhabitants was not hinted at. As a matter of fact this silly rumour had been so overwhelmingly refuted by Mr. Gardiner's pamphlet that the Hope Fire Assurance Company did not dare to put it forward at this stage, though they had used it as an argument wherewith to try to stave Wakley off further proceedings at an earlier stage. The first witness for the defendant was a watchman, who stated that he was at the door of the house when the servants came out, and that he heard the bolt go when the door was opened. This evidence was meant to contradict Wakley's story that he had opened the door to a false messenger from Gerard's Hall, and that being struck down at once he lay unconscious and could not have closed it again. It would also have to a certain extent disproved the theory that some of the property described by Wakley as having been in the house, but no trace of which, in spite of its imperishable nature, could be found by the firemen working under the appraisers for the Hope Office, had been removed by a robber or robbers. The tendency of this evidence, so directly at variance with Wakley's statement and the sworn testimony of four of his witnesses—viz., his two servants and Mr. Thompson and Mr. Parker—was to incriminate the servants, a side issue which, in view of the fact that they bore excellent characters and were still in Wakley's service, was pursued no further. The result of the evidence was to convict the watchman of not having watched. A Bow-street officer deposed to having taken down from Wakley's mouth a statement of the events of the night, and to having since received the clothes that he was wearing at the time of his escape from the burning house. This witness's examination was conducted with the assistance of a dummy attired in Wakley's clothes, the intent being to show that the cuts in the shirt, coat, and waistcoat did not tally with the cuts in the skin; but the evidence broke down under cross-examination. The only part of the Bow-street officer's testimony that really remained unrebutted was a repetition of Wakley's sworn statement, a more remarkable case of a witness being called to curse and remaining to bless not being often seen. The head fireman of the Hope Fire Assurance Company and one of the appraisers testified that they were unable to find traces of certain properties which were alleged in the plaintiff's statement of claim to have been present in the house at the time of the fire and which were from their nature more or less imperishable, and insinuated that some of the articles found had been overcharged against the company. Dr. Luke, who, it may be remembered, was the medical man who first saw Wakley after he had been conveyed across Argyll-street, deposed that the wounds could not have bled much, and would not have accounted for all the discolouration on his shirt. Some evidence as to the value of Mr. Samuel Malleson's furniture was also given by the owner of the house in Mill-street, where Malleson had resided while in practice, and whence certain of his furniture was transferred to Argyll-street when Wakley bought his practice. It appeared that a Mr. Comley rented the house after Malleson had left, and that he too in his turn had gone but had omitted to pay the rent. The owner of the house therefore distrained, and the broker through whom the distraint was made swore that he could only find £20 worth of furniture in the house. As it turned out, however, on cross-examination that the distraint was made after Wakley had removed some of or all the goods that he had bought into his new house the evidence went for nothing.

Mr. Parker was then recalled and proved that the plaintiff's hands were severely cut when he was brought into the house, and that the hæmorrhage from these cuts might easily have caused the excessive staining of the shirt that puzzled Dr. Luke; in making which point he incidentally confirmed Wakley's story that he had been compelled to break his way out of the burning building through a skylight.

The Lord Chief Justice summed up entirely in Wakley's favour, and the jury, after a delay of under half an hour, found for the plaintiff, damages £1200, or the full amount that he was able to claim under the terms of his policy. He also obtained his costs, which amounted to a sum of £281 10*s.*, and further costs not covered by that sum were defrayed by public subscription to which one, at least, of the jurymen subscribed, as well as the son of one of the auditors of the Hope Fire Assurance Company.[4]

Such was the satisfactory termination of a trial upon the issue of which hung the reputation and fortune of Thomas Wakley. He was paid in full, his name was also cleared in the most patent manner of the vile aspersions that had been showered upon it, while the public subscription to meet such of his costs as would otherwise have fallen upon himself constituted a public apology for the wrong that had been

[4] It may be interesting to say that we have now lying before us the actual formal "Record" in the action, consisting of many skins of parchment, and on the back of the last of these is endorsed the "Postea," signed by the proper officer of the court, which formed at that time the official statement of the result of the trial.

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done him by rumour. But if the actual proceedings were now stayed, if his pecuniary loss was reduced to a small sum and his good repute before all men restored to him, the effects of the terrible experiences of the past ten months yet remained. And not only did they remain, but they changed the tenour of his life, forming the sharp stimulus that pricked him, from the regular routine of the life of a general practitioner into a course of more free and individual assertion. He had been personally attacked, he had won, and a not too latent spirit of combat had been roused. During his time of trial he had found his friends staunch and his professional brethren ready to repudiate for him the hard and evil things that were said of him. A few there were that had been unfaithful, but, on the whole, he was well and ably supported through the crisis. But when the strife of battle was over it left him an unsettled man, though there was nothing shiftless about his hesitation to embark again in private practice, and, surely, nothing hard to comprehend. He had prepared all things to live the life of a general practitioner of medicine. He had chosen his locality and furnished his house to that end. Through no fault of his own the house had been destroyed, while the ten months' neglect of his practice, which occurred again through no fault of his own, had well-nigh destroyed his connexion with his patients. It was necessary for him to start entirely afresh, and his reluctance to begin again the tasks of buying a practice, renting a house, furnishing it and insuring it, can be easily comprehended. What had been done a few months ago with the ardent solicitude of a young husband had now to be done over again by a disappointed man, who, though successful in obtaining his rights in a law court, had none the less been treated with physical and moral savagery, and had lain under undeserved stigma at the moment when he was most in need of sympathy. He was some months in settling down, during which time his letters are dated from such different parts of London as Kentish-town, Hatton-garden, and Little Chelsea, which was a colloquial name for the southern part of Brompton. He was at this time a poor man. He had little or no income. It is true he had his £1200, but it was necessary that he should reserve that, or as much of it as he was able, with a view to purchase a new practice and furnish another home. And in taking these steps he had more than ordinary reasons to be cautious. His father-in-law was a generous man and had stood by Wakley in his troubles well, but he was none the less a business man, and he resented the disappearance of the Argyll-street practice. He was just enough not to actually blame his son-in-law for the results of pure misfortune, but an able-bodied man out of employ was a sight that jarred on all his commercial instincts. Relations became strained between them, for which reason the young man felt that it was absolutely necessary that his next start should lead straight to success, recognising that failure was not going to be condoned. And this feeling of responsibility led to the months of hesitation.

It was during this time that Wakley made the acquaintance of, and matured friendship with, a man who was shortly to assist him in starting the work which afterwards became the chief business of his life—the work of medical reform. The link that bound William Cobbett and Thomas Wakley together originally was a quaint one. The Cato-street Conspiracy was a subject upon which all the papers in London wrote, and wrote persistently, and Wakley's name occurred more than once in the character of a victim to the blind brutality of Thistlewood's followers. Now it happened that William Cobbett, editor of the *Weekly Political Register* and the *Evening Post*, and accepted Parliamentary candidate for Coventry, firmly believed that he, too, had been destined to be a victim to this gang. He may himself have felt conscious of what many even among his admirers knew, that his Radicalism was more fervent in expression than thoroughgoing in policy, and he may have, therefore, suspected that his academic declamations of socialism would be more likely to irritate the mere ruffianly down-with-everything mob than would the declared opposition of the Tory. But for this reason or that Cobbett believed that the Cato-street conspirators had designs upon his life, and his belief, upon which he founded several articles in his evening paper, led him to make himself known to Wakley, a man in the same plight. Cobbett was exactly the man to make an impression upon Wakley, who, though not likely to be a blind follower of any leader, was receptive and ever willing to learn. He was thirty years Wakley's senior and had a life of chequered experiences behind him, having been gardener, private soldier, tutor in France and the United States, political pamphleteer and refugee, bookseller, and Radical journalist. He was an eloquent propagandist and a practical man in spite of the violent character of some of his political writing. In Cobbett's company Wakley met other journalists and men of the reforming type, and he saw how instinctively these men turned to pen and ink for the redress of any wrong. The acquaintanceship thus made ripened into a friendship which never waned, and there can be no doubt that although THE LANCET itself was entirely Wakley's idea Cobbett's friendship and Cobbett's example counted for much in his resolution, so soon now to be formally taken, to set the medical profession aright by publishing wherein it was wrong. What the reform of the political electorate was to Cobbett's pen, the reform of the profession of medicine was to be to the younger man's pen.

Two uneventful years had to go by, however, before any vague ideas that might already be in his head took definite shape. During these two years he practised his profession. After much desultory work here and there in the localities already mentioned he at last settled in practice at the north-east corner of Norfolk-street, Strand, where a good opportunity seemed to him to exist for making a lucrative livelihood. The practice was an old-established one, and the income good, but the class of patients was not the same as it had been in Argyll-street, nor was the neighbourhood so pleasant a one for residence. To Wakley these things did not matter so much as they did to his wife. He was satisfied to be doing good work, irrespectively of the class among whom it was done, and to be receiving enough money through his labours to sustain his household; but his wife did not like Norfolk-street or the fact that her husband was keeping a dispensary. So that in 1823 everything was ripe for THE LANCET. Wakley had gone through the fire of severe trials and had measured himself with big men, and felt that there had grown up within him the capacity to do big work. The abuses that Cobbett and his school were quick to spy out in the body political, but not always quick to persuade other people to see, were in the case of the medical profession bare to the casual eye. Nepotism was then rampant, ignorance was too often exalted, and pecuniary traffic determined success. The soul of the reformer had always been in Wakley, and to set aright these things he determined to take the field with a weekly newspaper devoted to the interests of the medical profession.

(To be continued.)

ROYAL STATISTICAL SOCIETY. — The fourth ordinary meeting of the present session will be held on Tuesday, Feb. 18th, at 5 P.M., at the Royal United Service Institution, Whitehall, S.W., when a paper will be read by Dr. Francis Warner on the following subject: "Mental and Physical Conditions among 50,000 Children seen in 1892-94, and the Methods of Studying Recorded Observations, with special reference to the Determination of the Causes of Mental Dulness and other Defects."

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MEDICAL CERTIFICATES AND THE LONDON SCHOOL BOARD.

ON Feb. 6th a meeting was held in the rooms of the Royal Medical and Chirurgical Society, 20, Hanover-square, at which the following medical men were present: Dr. Thomas Bridgwater, Dr. J. Walter Carr, Mr. Brudenell Carter, Dr. H. P. Cholmeley, Dr. Ward Cousins, Mr. George Cowell, Mr. H. C. Fletcher, Dr. J. G. Glover. Dr. L. G. Glover, Dr. Leonard Guthrie, Dr. P. Horton-Smith, Dr. Raymond Johnson, Mr. David Keele, Mr. Miller, Mr. Malcolm Morris, Mr. Marmaduke Sheild, Dr. Walter Smith, Dr. Vinrace, Mr. Spencer Watson, and Dr. C. Percival White.

The object of the meeting was to discuss the conduct of the School Board as expressed by its resolution of May 30th, 1895, upon which we commented severely in our issue of June 8th.

Dr. GLOVER, having been unanimously elected chairman, briefly reviewed the history of the question which had led to the present meeting. The School Board had appointed officers in some parts of London to supervise medical certificates considered doubtful by the divisional superintendents. This was an offensive way of going behind the certificate of the medical man. He pointed out that certificates were given on a very large scale, and in the case of some hospitals the certificates were not confined to the children but were also given gratuitously to candidates for the office of teacher. He asked where this gratuitous system was to end, and many would see in the present question part of the great general evil of the gratuitous system. The medical profession had pretty well been demoralised by it, and they were going far to demoralise other professions. He asked them to bear in mind the question of payment, but the chief object for which they had met was to get rid of the offensive action of the School Board. He reminded them that the question was of greater moment than professional etiquette; it was a question affecting the safety of the public. When the responsibility of giving a certificate as to whether a child was suffering from an infectious disease or not was considered it would be seen that the question became a public one. He felt that when the Board raised an objection to a certificate it should treat with respect the medical man giving that certificate and put its own officer in communication with the medical man, who should be paid for his trouble. That he thought a reasonable suggestion. Mr. Sharp had only a very small majority to rely upon, and when the question was last raised at the Board it was only carried by a majority of two, and he hoped they would have no difficulty in carrying that majority to the other side.

Dr. WARD COUSINS then proposed the following resolution:—

"That this meeting of medical men interested in the question of the certification of sickness in School Board children in the metropolis, and largely representing those who have to give certificates, expresses great dissatisfaction and concern at the recent action of the Board in appointing medical men in some parts of London to go behind the certificates supplied to the Board, with much trouble, by practitioners." The profession, he said, had really a very great cause for complaint. If the certificates were of no value they could refuse to give them, and they had a right to do so if their certificates were ignored.

Mr. COWELL seconded the resolution, which he said exactly expressed the feeling of the meeting. The School Board was indebted to the medical profession in a greater degree than it knew of, and medical men should be treated by it with respect and courtesy. Since the resolution was passed he had declined to give certificates altogether. They should take the matter into their own hands, and if the School Board found the profession unwilling to grant certificates so long as they were treated in a disrespectful manner they would find that the Board would rescind its resolution.

Mr. SPENCER WATSON and Mr. MALCOLM MORRIS also spoke to the resolution.

Mr. SHEILD pointed out the inducement, under the system of payment by results to the schoolmaster, to ignore the medical certificate to keep up his returns.

The resolution was then carried unanimously.

On the motion of Dr. WALTER SMITH, seconded by Mr. MALCOLM MORRIS, the following resolution was also carried unanimously:—

"That we are of opinion that, in the interest of the health of school children under the School Board system, it is of vital importance that harmonious action should exist between the medical profession and the Board; and that, failing this, the health of individual children will suffer greatly, and one chief defence against the spread of scarlet fever, diphtheria, skin diseases, and other complaints will be impaired."

Finally it was resolved that the following gentlemen should constitute a committee to consider the question, draw up a line of action, and report to a future meeting: Mr. Malcolm Morris, Dr. Raymond Johnson, Dr. Guthrie, Mr. Marmaduke Sheild, Dr. Walter Smith, Mr. Cowell, Dr. Bridgwater, Dr. H. P. Cholmeley, and Dr. Glover (chairman).

STATISTICAL REPORT OF THE HEALTH OF THE NAVY FOR THE YEAR 1894.

WE purposely delayed noticing the report of the health of the navy for 1894 until we had time to give something more than a hurried glance at its pages, but we do not know that we have gained much by doing so. The report is mainly—indeed, almost entirely—statistical, and all that can consequently be done is to briefly summarise its facts and figures, and the compilers of the report have done this in a way that leaves but little room for alteration or addition. The total force in the service afloat in 1894 was 64,840 officers and men, of whom 58·92 per cent. were between the ages of fifteen and twenty-five and 29·56 per cent. between twenty-five and thirty-five years of age, the remainder ranging between the ages of thirty-five and forty-five years of age and upwards. The returns of the total force are very satisfactory. The number of cases of disease and injury for the year shows a lower ratio than any during the previous thirty-eight years; the ratio of invaliding is also lower than any recorded since 1856, with the exception of those of 1888 and 1889; and the death-rate compares favourably with the rates of former years, although it has, owing to casualties arising from the operations of naval forces in expeditions on the west coast of Africa, somewhat increased. The general health, we are told, of the squadron on the Mediterranean station has undergone considerable improvement notwithstanding an increased number of cases of malarial fever. The China station shows a large reduction of sickness as compared with 1893, and no cases of bubonic fever occurred among the officers or men of the fleet during the outbreak of that disease at Hong-Kong. The ratio of venereal diseases per 1000 shows an increase of cases of primary syphilis, and, as compared with the figures of the previous seven years, there is also an increase of secondary syphilis, although this form of the disease shows a slight decrease in 1894 as compared with 1893.

The ratio of cases of disease and injury per 1000 of the total force for 1894 is 919·2, being a decrease of 35·22 and of 62·47 per 1000 on that of the previous year and on the average ratio for the past seven years respectively. The daily sick ratio, which also shows a decrease, was 39·55 per 1000. The invaliding rate—25·61—and the death-rate—5·76 per 1000—were both less in 1894 than in the previous year, or as compared with the average rates for the past seven years. The lowest sick-rate was on the North American and West Indian station, and the highest on the China station.

Among the fevers it may be mentioned that 2042 cases of simple continued fever were returned, 531 of which occurred on the Mediterranean, 404 on the East Indies, 249 on the China, and 142 on the Cape of Good Hope, and West Coast of Africa stations. Out of a total of 145 entries for enteric fever during the year 63 occurred on the home station, 26 on the Mediterranean, 9 on the East Indies, 17 on the China stations, and the remainder at other stations and in the irregular force; indeed, cases of this disease seem to have occurred at all the stations of the British fleet. The total number of deaths was 31 and the invalidings 12 from this fever. There were 2 cases of yellow fever recorded on the south-east coast of America station. Out of 71 cases of dysentery returned in 1894, 9 proved fatal, and 9 were invalided. Influenza caused 1575 admissions and 2 deaths; the disease was, geographically regarded, widely spread. All the cases of diphtheria, of which 8 were returned, occurred, with one exception, in the irregular force.

As regards venereal diseases, amounting to a total of 9719 cases, there were 3419 of primary syphilis, 1656 of secondary syphilis, and 4644 of gonorrhœa and its sequelæ.

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The number invalided for these diseases was 186, and there were 3 deaths; 5172 of the total cases are recorded in the home station. The ratio for primary syphilis was 52·72 per 1000, which shows an increase of 1·06 per 1000, while that for secondary syphilis equals 25·53, being a decrease of 0·96 per 1000 as compared with 1893. As compared with the ratios of the last seven years there was a diminution of 3·66 per 1000 under primary, but an increment of 1·2 per 1000 under secondary syphilis. The returns from the following stations show increases in the ratio of primary syphilis—viz.: the Home Station, of 2·26 per 1000; the South East Coast of America, of 8·33; the Pacific, of 11·11; the Australian, of 10·55; and in the Irregular Force, of 2·0. Decreases, however, are seen in the Mediterranean Station, of 1·32; North American and West Indian, of 3·12; Cape of Good Hope and West Coast of Africa, 4·37; the East Indies, 0·68; and China, 4·21. The invaliding ratio of the total Force for secondary syphilis was 1·91 per 1000, a decrease of 0·35 per 1000 when compared with 1883. These facts and figures tell a sad story when their results are considered and all the consequences of this disease—from its initial stage to its remote effects—are taken into account.

Under the head of malarial fevers occurring on the Mediterranean Station we find that the largest number of cases of remittent fever (69) was returned by H.M.S. *Anson*, then came the *Hood* with 57, the *Vulcan* with 39, the *Ramillies* with 37, the *Collingwood* with 29, and the *Arethusa* and *Trafalgar* with slightly smaller numbers. The great majority of the patients appear to have contracted the fever at Malta. The disease was characterised by a great liability to relapse and by the frequent occurrence of rheumatism as a troublesome sequela. The remaining patients were distributed throughout twenty-six ships, but many of them were attacked at Malta, which occupies an unenviable position in this respect. The nomenclature of Mediterranean fevers is confessedly somewhat confused and unsatisfactory. As regards many of them, it is at any rate still open to doubt whether they can be correctly designated as malarial. The remarks of Surgeon W. E. Marshall and of Staff-Surgeon Gilbert Kirker, M.D., on this subject given at p. 43 *et seq.* of the report are well worth reading. It is generally recognised to be very difficult to distinguish certain forms of fever prevailing in tropical and sub-tropical countries from enteric fever, especially at an early stage of the disease, still there is a disease encountered all along the Mediterranean littoral which certainly does not seem to be typhoid fever on the one hand, or to be demonstrably attributable, on the other, to malaria as that term is usually understood. Ague is a relatively rare disease to be contracted at Malta or Gibraltar, but a continued or remittent form of fever which is not at all amenable to the action of quinine, and not conformable in its clinical or pathological features to enteric fever—although that disease is, of course, frequently met with—is common at both stations. It is apt to be followed by a long and tedious convalescence, interrupted by febrile relapses and very frequently by sequelæ not ordinarily met with after attacks of enteric fever. Staff-Surgeon Kirker does not seem to think that the prevalence of this form of fever in the fleet at Malta is attributable to any foul state of the water in those harbours as has been suggested, and he gives some pertinent reasons for his opinion.

In the section of the report devoted to the Cape of Good Hope and West Coast of Africa stations there are some good remarks on the widespread prevalence of small-pox and the protective influence of vaccination. There are also some excellent extracts from the reports of naval medical officers on the intermittent and remittent climatic fevers of the West Coast of Africa, which may be read with special interest at the present time.

In conclusion, we may express the wish that these annual volumes of statistical reports on the health of the navy contained far more matter than they do on these and other subjects of professional interest.

THE ASHANTI EXPEDITION.

WHEN we last wrote the total number of sick of the force was about 120, but we specially warned our readers that it would be too much to expect that the relatively small number of sick at that time could be taken as the limit and measure of the inefficiency that would arise from service in that climate—fresh manifestations of malarial disease would almost certainly occur later. This prediction has, unfortunately, only proved to be too correct, for within a day or two afterwards we learnt from Cape Coast Castle that the number of sick had risen to nearly 200. Later intelligence has arrived that the British force has embarked for, and is now on its way to, this country in the *Manila* and other steamers, the hospital ship *Coromandel* conveying the sick of the expeditionary force, with Sir Francis Scott, Prince Christian Victor, and the Headquarters Staff. This brings, we may hope, the Ashanti Expedition to a close, and our object has been attained without any bloodshed. In design and arrangement the expedition has been well conceived and admirably managed, and we trust that the hard and successful labours of the troops, and the risks to life which they have had to encounter will not be overlooked by the Government. There will probably be some increase in the number of the sick on the homeward voyage, and we may expect that opportunities will not be wanting to histologists in this country for searching for the presence of Laveran's malaria parasite in the blood of some of those who have contracted climatic fever in West Africa. Now that the sufferers have left that climate, and will soon have returned to one free from malaria, it may be fairly anticipated that, with the aid of anti-malarial remedies like quinine, they will all recover their health, although the recovery in some instances may be somewhat protracted from the liability to recurrent attacks and to the sequelæ of malarial disease.

What seems to us to be now required for the peaceful development of Ashanti is some light railway communication and telegraph between Kumasi and the coast, a British residency in the Ashanti capital, and the selection of some healthy and elevated site in its vicinity for the occupation of the troops. We may confidently expect that there will then be an end to the massacres and tribal wars.

THE GRAND PRIORY OF THE ORDER OF THE HOSPITAL OF ST. JOHN OF JERUSALEM IN ENGLAND.

AT a public dinner, largely attended by medical men, one of the guests wore the insignia of the above Order, an eight-pointed or Maltese cross of white enamel, embellished alternately at each of the principal angles with a lion gardant and a unicorn both passant, and inquiry was made by many of the assembled guests as to the meaning of the badge. That the Order whose motto is *Pro utilitate hominum* should not be more generally known throughout the profession than this incident would seem to imply somewhat surprises us, and we therefore make the following abstract from a pamphlet issued by the St. John Ambulance Association, which, besides containing a lecture on the advantages of ambulance instruction and detailed information of the work of the Association, gives a good *résumé* of the history of the Order of the Hospital of St. John of Jerusalem in England and its departments. The pamphlet can be obtained on application to the secretary of the Order, St. John's-gate, Clerkenwell, London, E.C.

The Order of St. John of Jerusalem was founded in the city of its patron saint, where it established an hospital. It afterwards migrated to Rhodes, and after many wanderings to Malta. Its primary object was the defence and relief of pilgrims visiting the Holy City, and the confraternity soon became incorporated by charter of the Kings of Jerusalem. In England a branch of the Order was introduced (circ.) 1100, with its headquarters at Clerkenwell, and attained the status of an English corporation under the style of the Order of St. John of Jerusalem in England about the time of Edward II. A representative from the English branch was sent to the main body of the Order at its sovereign seat. In or about the year 1330 the Order was divided into eight separate languages or nationalities, England occupying the sixth place, and held its high position in this country until about the year 1540, when the English corporate body was dissolved by Henry VIII. Shortly after the advent of Queen Mary to the throne, however, the English Knights were re-established at the Priory of Clerkenwell as a confraternity, and in the year 1557 were again incorporated by Royal Charter. About the year 1827 the Order was revived in England, and since 1830 its members have united together as an Order or Fraternity for the purpose of performing Hospitaller and other charitable work. On May 14th, 1888, in recognition of the excellent work performed by the members of the Order or Fraternity during the past half-century—especially the establishment of the St. John Ambulance Association and the foundation and support of the British Ophthalmic Hospital at Jerusalem—Her Majesty the Queen granted to them a new Royal Charter

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of Incorporation by their old name and style of "The Grand Priory of the Order of the Hospital of St. John of Jerusalem in England." Her Majesty became the Sovereign Head and Patron of the Order. The members then existing on the roll of the Fraternity at the date of the incorporation formed the body corporate of the then incorporated Order or Fraternity, amongst whom, as Knights of Justice, were the Duke of Connaught, the Duke of Teck, and many others of high rank and distinction. Amongst the Ladies of Justice were the Princess of Wales and many other members of the Royal Family, and amongst the Honorary Ladies of Justice were the Queen of Denmark and the Queen of Sweden and Norway, and the Grand Duchess of Baden. The existing Prior of the Order or Fraternity, the Duke of Manchester, K.P., was created the Grand Prior of the Order thus reincorporated, until the Eve of St. John the Baptist next following the date of the Royal Charter, when the Prince of Wales became Grand Prior, and deputed his eldest son, Prince Albert Victor as Sub-Prior, on whose lamented death the Duke of York was appointed to that grade.

The various grades of the Order which do not confer any rank, style, title, dignity, appellation, or social precedence whatsoever, are as follows:—A Grand Prior, a Sub-Prior, a Titular Bailiff of Eglé, Honorary Bailiffs, Commanders, Honorary Commanders, Knights of Justice, Ladies of Justice, Prelates, Sub-Prelates, Chaplains, Knights of Grace, Ladies of Grace, Esquires, Serving Brothers and Sisters—with whom are associated, but not as members, Honorary Associates and Donats.

In addition to the British Ophthalmic Hospital at Jerusalem and the St. John Ambulance Association, the following movements have been supported or established by the Chapter during the present century:—The relief of poor convalescents, recommended by hospitals and infirmaries, by the issue of diet and nourishing food; the promotion of cottage hospitals in country districts; a system of transport for the injured, by means of ambulance stations, where suitable litters were deposited; the initiation of what became known as "The National Society for Aid to Sick and Wounded in War," for the relief of both combatants during the Franco-German campaign; "The Eastern War Sick and Wounded Relief Fund,' for the same purpose during the Russo-Servian War; and the award of medals and diplomas for deeds of gallantry in saving life on land. The Order has also taken part in the promotion of other useful institutions, such as the Metropolitan and National Society for Training and Supplying Nurses for the Sick Poor and the Victoria Hospital, Cairo, and has afforded relief to the sick and wounded of our own armies in some of their recent campaigns. The St. John Ambulance Association department of the Order was originally established in 1878 for affording instruction in the preliminary treatment of the injured in peace and the sick and wounded in war. The object of the Association is not to rival but to aid the medical man, and the subject matter of instruction given at the classes has been defined by the Medical Committee of the Ambulance Department with the view of qualifying the pupil to adopt such measures as may be advantageous pending the doctor's arrival or during the intervals between his visits. In connexion with this Association is the St. John Ambulance Brigade.

The objects of the St. John Ambulance Brigade are: (*a*) To afford holders of First Aid Certificates from the St. John Ambulance Association opportunities of meeting together for ambulance practice, and thus to combine individual efforts for the public advantage. (*b*) To render First Aid to the injured on public occasions, with the sanction of the police and other authorities, and to maintain in readiness for such duty a body of trained men qualified so to act. (*c*) To enrol a body of civilians qualified in First Aid and trained in ambulance drill willing to be placed at the disposal of the military and other authorities as a supplement to the regular medical staff in case of necessity either at home or abroad. (*d*) To supplement the *personnel* of the Invalid Transport Service at St. John's-gate, and thus afford opportunities of training men in ambulance duties, and generally to develop and promote every means of rendering aid to the injured.

THE CASE OF MR. LIONEL SMITH.

THE following donations additional to the £83 17*s.* 6*d.* sent to THE LANCET, and already acknowledged, have been received by us:—

Mr. D. Elcum	£1	1	0
Mr. R. Lawford Knaggs	1	1	0
Dr. T. Langston	1	0	0
Dr. Druce Slater	1	1	0

THE annual general meeting of the governors of the Royal National Hospital for Consumption and Diseases of the Chest, Ventnor, was held at the London Office, 34, Craven-street, Charing-cross, on Feb. 13th.

THE BURROUGHS SCHOLARSHIP.—At an evening meeting of the Pharmaceutical Society of Great Britain on Tuesday last, Mr. Michael Carteighe, the President, in the chair, the subscriptions raised by the friends of the late Mr. S. M. Burroughs to perpetuate his name and his practical philanthropy were handed over to the council of the Pharmaceutical Society. The sum, which has been placed under the trusteeship of the council, amounts to £850, and, as is only fitting, a scholarship has been founded in connexion with the subjects in which Mr. Burroughs was educated and the calling which he followed. This scholarship, which is to be called the Burroughs Scholarship, will be the means of enabling a student of exceptional merit to make further research in the subject of pharmacy.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Enteric Fever at High Wycombe, by Dr. S. W. WHEATON.—High Wycombe became the subject of a visit by one of the medical inspectors of the Local Government Board by reason of an excess of enteric fever. The town lies mainly on a bed of gravel in the valley of the small river Wye, and the description of a large portion of its water-supply is characteristic of that which obtains where enteric fever is common. Perhaps it is less common in High Wycombe than it otherwise would be by reason of the abundance of the water flowing through the gravel and the consequent dilution of its contained filth. There are waterworks, but the domestic water-supply comes mainly from wells, and many of these are mere dip-wells, sunk in the gravel, and not protected from outside soakage. Watercloset soil-pipes, frequently blocked, pass by these wells, so also do drains the joints of which are not usually cemented; then, again, gullies are close to, or over, the wells so as to favour the entrance of liquid refuse into the drinking-water; and, lastly, after heavy rainfall sewage is forced up the manholes in low-lying parts of the town and carried over the surface of the pervious soil in which the wells are sunk. Well may the opinion be expressed that such a water-supply is unsatisfactory. But there is also blockage of the main sewers themselves with facility for soakage through gravel or fissures in the chalk into the water-bearing strata. The waterworks water seems mainly used for other than domestic purposes, such as street-watering, &c. We do not propose to follow Dr. Wheaton further in his description of the sanitary circumstances of this ancient borough. But as regards enteric fever it appears that it is rarely absent from among its 10,000 to 11,000 people and that in 1894–95 some 50 attacks occurred. In seeking a cause of this fever Dr. Wheaton was in difficulty by reason of the fact that the unwholesome conditions found in the invaded houses were so numerous that it seemed impracticable to single out any one of them as responsible for the disease. He gives instances of this in support of his contention; but one unwholesome condition common to all the houses in question was the want of a supply of water for flushing the closets. The need of insisting that an elementary condition of a watercloset is a proper supply of water for flushing seems an anomaly at the present date, and yet the fact is evidently not appreciated in High Wycombe. Then, again, the town council seem desirous to remain in ignorance of the precise amount and localisation of infectious disease in their district, for they have not adopted the notification of infectious diseases, and they have no means of isolating any sick of whom they may hear or for the efficient disinfection of infected articles. There is evidently much to do in High Wycombe before it can be held that even the elementary requirements of a healthy town have been provided; and it is to be hoped that the town council will not wait until some more serious prevalence of disease is brought about before removing from their midst those conditions which obviously involve risk of danger, and before providing themselves adequately with the means of controlling any infectious disease that may appear within their borough.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6466 births and 4267 deaths were registered during the week ending Feb. 8th. The annual rate of mortality in these towns, which had declined in the three preceding weeks from 19·7 to 18·4 per 1000, rose again last week to 20·5. In London the rate was 20·7 per 1000, while it averaged 20·3 in the thirty-two provincial towns. The lowest rates in these towns were 15·0 in Croydon, 15·3 in Swansea and in Blackburn, 15·6 in Huddersfield, and 16·2 in Birkenhead; the highest rates were 24·2 in Halifax, 24·7 in Wolverhampton, 25·2 in Liverpool, 25·4 in Norwich, and 26·9 in Bolton. The 4267

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deaths included 561 which were referred to the principal zymotic diseases, against 492 and 457 in the two preceding weeks; of these, 204 resulted from whooping-cough, 149 from measles, 97 from diphtheria, 44 from scarlet fever, 42 from diarrhœa, 33 from "fever" (principally enteric), and 1 from small-pox. No fatal case of any of these diseases was recorded in Plymouth; in the other towns they caused the lowest death-rates in Croydon, Hull, Birkenhead, Swansea, and Bradford, and the highest rates in Birmingham, Burnley, Salford, Norwich, and Bolton. The greatest mortality from measles occurred in Salford, Birmingham, Burnley, Leicester, and Norwich; from whooping-cough in Portsmouth, Manchester, Salford, Bolton, Sheffield, and Gateshead; and from "fever" in Bolton. The mortality from scarlet fever showed no marked excess in any of the large towns. The 97 deaths from diphtheria included 63 in London, 5 in West Ham, and 5 in Birmingham. One fatal case of small-pox was registered in Swansea, but not one in London or in any other of the thirty-three large towns. There were 64 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 8th inst., against 73, 70, and 74 at the end of the three preceding weeks; 6 new cases were admitted during the week, against 17, 14, and 12 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2883, against 2883, 2916, and 2879 on the three preceding Saturdays; 285 new cases were admitted during the week, against 280, 290, and 273 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had increased in the five preceding weeks from 314 to 366, further rose to 446 last week, but were 35 below the corrected average. The causes of 71, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Bristol, Cardiff, Bradford, Newcastle-upon-Tyne, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Derby, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·0 and 19·5 per 1000 in the two preceding weeks, further declined to 18·8 during the week ending Feb. 8th, and was 1·7 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 9·8 in Leith and 12·0 in Perth to 21·8 in Aberdeen and 25·7 in Paisley. The 548 deaths in these towns included 32 which were referred to whooping-cough, 17 to diarrhœa, 10 to diphtheria, 8 to "fever," 6 to scarlet fever, 4 to measles, and not one to small-pox. In all, 77 deaths resulted from these principal zymotic diseases, against 59 and 79 in the two preceding weeks. These 77 deaths were equal to an annual rate of 2·6 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 29 and 37 in the two preceding weeks, declined to 32 last week, of which 17 occurred in Glasgow, 7 in Aberdeen, and 4 in Dundee. The deaths referred to different forms of "fever," which had been 3 and 7 in the two preceding weeks, further rose to 8 last week, and included 5 in Glasgow. The fatal cases of diphtheria which had increased from 2 to 6 in the four preceding weeks, further rose to 10 last week, of which 4 occurred in Aberdeen, 3 in Edinburgh, and 2 in Glasgow. The deaths from scarlet fever, which had been 3 and 10 in the two preceding weeks, declined to 6 last week, and included 3 in Glasgow and 2 in Leith. Of the four fatal cases of measles 2 were recorded in Greenock and 2 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 142 and 116 in the two preceding weeks, further declined to 106 last week, and were 108 below the number in the corresponding period of last year. The causes of 24, or more than 5 per cent. of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 27·4 and 26·5 per 1000 in the two preceding weeks, further declined to 24·6 during the week ending Feb. 8th. During the past six weeks of the current quarter the death-rate in the city has averaged 26·4 per 1000, the rate during the same period being 19·1 in London and 16·5 in Edinburgh. The 165 deaths registered in Dublin during the week under notice showed a decline of 13 from the number in the preceding week, and included 10 which were referred to the principal zymotic diseases, against 11 and 7 in the two preceding weeks; of these, 5 resulted from diarrhœa, 2 from "fever," 2 from whooping-cough, and 1 from scarlet fever, but not one either from small-pox, measles, or diphtheria. These 10 deaths were equal to an annual rate of 1·5 per 1000, the zymotic death-rate during the same period being 3·3 in London and 0·8 in Edinburgh. The 5 fatal cases of diarrhœa exceeded the number recorded in any recent week. The deaths referred to different forms of "fever," which had been 6 and 3 in the two preceding weeks, further declined to 2 last week. The mortality both from scarlet fever and from whooping-cough corresponded with that recorded in the preceding week. The 165 deaths in Dublin last week included 29 of infants under one year of age, and 40 of persons aged upwards of sixty years; the deaths of infants showed a slight increase, while those of elderly persons showed a further decline from recent weekly numbers. Four inquest cases and 4 deaths from violence were registered; and 60, or more than a third, of the deaths occurred in public institutions. The causes of 10, or more than 6 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING JANUARY, 1896.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during January in each of the forty-three sanitary areas of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 10·3 per 1000 of the population, estimated at 4,435,955 persons in the middle of this year. In the three preceding months the rates had been 14·5, 13·7, and 11·5 per 1000 respectively. Among the various sanitary areas the rates were considerably below the average in St. George Hanover-square, Holborn, St. Saviour Southwark, St. George Southwark, Wandsworth, and Woolwich; while they showed the largest excess in Stoke Newington, Whitechapel, St. George-in-the-East, Mile End Old Town, Poplar, Rotherhithe, and Plumstead. The prevalence of small-pox in London showed a slight increase during January, the 50 cases notified during the month including 7 in Greenwich, 6 in Poplar, 5 in Rotherhithe, 4 in Kensington, 4 in Lambeth, and 3 in Bermondsey sanitary areas. The Metropolitan Asylum Hospitals contained 68 small-pox patients at the end of January, against 103, 73, and 75 at the end of the three preceding months; the weekly admissions averaged 13, against 15 and 13 in the two preceding months. The prevalence of scarlet fever in London showed a further decline during January; this disease was proportionally most prevalent in Strand, Whitechapel, St. George-in-the-East, Poplar, St. Olave Southwark, Rotherhithe, and Battersea sanitary areas. The Metropolitan Asylum Hospitals contained 2814 scarlet fever patients at the end of January, against 2727, 2690, and 2708 at the end of the three preceding months; the weekly admissions averaged 282, against 263, 304, and 250 in the three preceding months. The prevalence of diphtheria in London during January showed a slight further decline from that recorded in recent months; among the various sanitary areas this disease showed the highest proportional prevalence in Fulham, Chelsea, City of London, St. George-in-the-East, Mile End Old Town, Greenwich, and Plumstead. There were 682 diphtheria patients under treatment in the Metropolitan Asylum Hospitals at the end of January, against 661, 672, and 687 at the end of the three preceding months; the weekly admissions averaged 103, against 103, 98, and 99 in the three preceding months. The prevalence of enteric fever in London during January showed a further marked decline from that recorded in the two preceding months; this disease was proportionally most prevalent in Hackney, St. Martin-in-the-Fields, Clerkenwell, St. Luke, St. George-in-the-East, Poplar, and Rotherhithe

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ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON—JANUARY, 1896.

(Specially compiled for THE LANCET.)

Sanitary Areas.	Estimated population in the middle of 1896.	Notified Cases of Infectious Disease.											Deaths from Principal Infectious Diseases.											Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON	4,435,955	50	2075	1284	—	337	11	31	599	—	4387	10·3	3	418	120	285	266	—	65	2	51	1210	2·8	7837	18·4	137
West Districts.																										
Paddington	123,942	1	66	27	—	7	1	3	10	—	115	9·7	—	3	5	8	2	—	3	1	—	22	1·9	175	14·7	134
Kensington	167,993	4	96	35	—	8	1	—	22	—	166	10·3	—	8	6	7	7	—	2	—	—	30	1·9	273	17·0	132
Hammersmith	111,246	2	59	32	—	4	1	—	8	—	106	9·9	—	12	6	8	15	—	3	—	2	46	4·3	197	18·5	170
Fulham	124,029	—	30	58	—	2	—	1	7	—	98	8·2	—	8	4	15	15	—	—	—	4	46	3·9	207	17·4	130
Chelsea	100,815	—	32	47	—	5	—	—	17	—	101	10·4	—	1	2	14	6	—	1	—	1	25	2·6	165	17·1	98
St. George Hanover-square	73,054	—	25	15	—	6	—	—	5	—	51	7·3	—	8	—	1	5	—	1	—	1	16	2·3	118	16·9	174
Westminster	53,595	1	26	13	—	1	—	—	10	—	51	9·9	—	4	1	4	5	—	1	—	—	15	2·9	97	18·9	175
St. James Westminster	22,735	—	12	3	—	2	—	—	4	—	21	9·6	—	9	1	1	—	—	1	—	—	12	5·5	42	19·3	161
North Districts.																										
Marylebone	136,239	—	49	32	—	15	—	1	20	—	117	9·0	—	26	2	9	9	—	3	—	1	50	3·8	278	21·3	117
Hampstead	79,831	—	34	35	—	5	—	1	10	—	85	11·1	—	16	1	6	1	—	2	—	2	28	3·7	107	14 0	195
St. Pancras	233,347	—	106	45	—	21	—	2	35	—	209	9·3	—	29	7	6	5	—	—	—	4	51	2·3	398	17·8	170
Islington	340,007	2	133	73	—	19	—	1	43	—	271	8·3	—	48	5	20	20	—	7	—	3	103	3·2	603	18·5	134
Stoke Newington	36,329	2	27	7	—	4	—	—	5	—	45	12·9	—	—	1	3	—	—	1	—	—	5	1·4	35	10·0	67
Hackney	219,834	—	123	64	—	36	3	—	26	—	252	12·0	—	2	4	14	17	—	3	—	—	40	1·9	293	13·9	98
Central Districts.																										
St. Giles	37,170	—	13	12	—	1	—	—	5	—	31	8·7	—	3	—	1	2	—	—	—	1	7	2·0	71	19·9	178
St. Martin-in-the-Fields	13,294	—	6	1	—	5	—	—	2	—	14	11·0	—	—	—	—	—	—	—	—	—	—	—	12	9·4	—
Strand	22,008	—	17	4	—	2	—	1	—	—	24	11·4	—	1	3	1	1	—	—	—	—	6	2·8	63	29·9	153
Holborn	31,940	—	11	6	—	—	—	—	2	—	19	6·2	—	5	—	2	3	—	—	—	1	11	3·6	81	26·4	202
Clerkenwell	64,762	1	30	15	—	11	—	—	8	—	65	10·5	—	10	4	4	—	—	1	—	2	21	3·4	113	18·2	133
St. Luke	40,362	2	14	12	—	6	—	—	13	—	47	12·1	—	—	3	4	6	—	—	—	1	14	3·6	89	23·0	114
City of London	32,845	1	9	16	—	4	—	—	—	—	30	9·5	—	—	1	1	—	—	4	—	—	6	1·9	62	19·7	89
East Districts.																										
Shoreditch	122 678	1	63	30	—	10	—	1	26	—	131	11·1	1	4	5	8	20	—	1	—	—	39	3·3	255	21·7	167
Bethnal Green	130,282	—	73	38	—	13	1	1	25	—	151	12·1	—	17	5	14	18	—	4	1	1	60	4·8	316	25·3	165
Whitechapel	76,143	2	49	30	—	8	—	—	16	—	105	14·4	—	2	2	7	4	—	2	—	2	19	2·6	156	21·4	115
St. George-in-the-East	45,036	1	48	20	—	6	1	—	2	—	78	18·0	—	—	3	4	—	—	1	—	3	11	2·5	116	26·8	144
Limehouse	56,770	—	25	20	—	3	—	1	9	—	58	10·7	—	2	—	3	3	—	—	—	1	9	1·7	111	20·4	118
Mile End Old Town	108,645	—	54	57	—	11	1	—	19	—	142	13·6	—	1	1	14	5	—	2	—	2	25	2·4	224	21·5	132
Poplar	172,319	6	110	50	—	21	—	—	26	—	213	12·9	—	7	5	6	13	—	4	—	1	36	2·2	317	19·2	150
South Districts.																										
St. Saviour Southwark	26,429	1	7	5	—	1	—	—	3	—	17	6·7	—	9	—	2	1	—	—	—	—	12	4·7	63	24·9	210
St. George Southwark	60,276	2	11	6	—	3	—	—	7	—	29	5·0	—	9	3	—	9	—	—	—	3	24	4·2	145	25·1	172
Newington	120,211	—	44	35	—	3	—	1	18	—	101	8·8	—	26	2	6	6	—	—	—	—	40	3·5	238	20·6	143
St. Olave Southwark	13,147	—	8	2	—	—	—	—	—	—	10	7·9	—	1	1	—	—	—	—	—	—	2	1·6	28	22·2	194
Bermondsey	83,669	3	38	10	—	3	—	1	15	—	70	8·7	—	12	4	3	7	—	1	—	—	27	3·4	172	21·4	114
Rotherhithe	41,064	5	27	15	—	13	—	1	10	—	71	18·0	—	4	1	3	1	—	2	—	—	11	2·8	68	17·3	73
Lambeth	287,211	4	136	66	—	18	2	4	35	—	265	9·6	1	34	10	14	4	—	4	—	4	71	2·6	483	17·5	112
Battersea	168,825	—	104	58	—	18	—	1	19	—	200	12·4	—	—	5	12	7	—	—	—	—	24	1·5	270	16·7	142
Wandsworth	191,922	—	67	22	—	16	—	2	30	—	137	7·4	—	1	1	1	9	—	5	—	1	18	1·0	236	12·8	126
Camberwell	256,672	—	118	69	—	13	—	3	31	—	264	10·7	—	79	9	16	29	—	4	—	6	143	5·8	546	22·2	174
Greenwich	177,286	7	70	90	—	3	—	1	28	—	199	11·7	1	14	2	22	8	—	—	—	—	47	2·8	287	16·9	132
Lewisham (excluding Penge)	84,996	1	46	17	—	5	—	1	8	—	78	9·6	—	—	2	2	1	—	—	—	2	7	0·9	119	14·6	97
Woolwich	43,232	—	8	9	—	1	—	—	5	—	23	5·5	—	1	1	2	2	—	—	—	2	8	1·9	73	17·6	143
Lee	39,504	—	16	13	—	4	—	2	7	—	42	11·1	—	1	1	2	—	—	2	—	—	6	1·6	42	11·1	90
Plumstead	64,203	—	35	40	—	—	—	1	8	—	84	13·6	—	1	1	15	—	—	—	—	—	17	2·8	93	15·1	130
Port of London	—	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 48 cases of membranous croup.

† Including deaths from membranous croup.

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sanitary areas. Erysipelas was proportionally most prevalent in St. Luke, Shoreditch, Bethnal Green, Whitechapel, and Rotherhithe sanitary areas. The 31 cases of puerperal fever notified during January included 4 in Lambeth, 3 in Paddington, and 3 in Camberwell sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas, the deaths occurring in the institutions of London having been distributed among the different sanitary areas in which the patients had previously resided. During the five weeks ending Saturday, Feb. 1st, the deaths of 7837 persons belonging to London were registered, equal to an annual rate of 18·4 per 1000, against 17·5, 18·2, and 17·3 in the three preceding months. The lowest death-rates during January in the various sanitary areas were 9·4 in St. Martin-in-the-Fields, 10·0 in Stoke Newington, 11·1 in Lee, 12·8 in Wandsworth, 13·9 in Hackney, and 14·0 in Hampstead; the highest rates were 23·0 in St. Luke, 24·9 in St. Saviour Southwark, 25·1 in St. George Southwark, 25·3 in Bethnal Green, 26·4 in Holborn, 26·8 in St. George-in-the-East, and 29·9 in Strand. During the five weeks of January 1210 deaths were referred to the principal zymotic diseases in London; of these, 418 resulted from measles, 285 from diphtheria, 266 from whooping-cough, 120 from scarlet fever, 65 from enteric fever, 3 from small-pox, and 2 from ill-defined forms of fever. These 1210 deaths were equal to an annual rate of 2·8 per 1000; no deaths from any of these zymotic diseases were recorded last month in St. Martin-in-the-Fields; in the other sanitary areas they caused the lowest death-rates in Stoke Newington, St. Olave Southwark, Battersea, Wandsworth, Lewisham, and Lee, and the highest rates in Hammersmith, St. James Westminster, Bethnal Green, St. Saviour Southwark, St. George Southwark, and Camberwell. Three fatal cases of small-pox were registered in London during the month under notice, the average number in the corresponding periods of the ten preceding years being 2; of these 3 deaths, 1 belonged to Shoreditch, 1 to Lambeth, and 1 to Greenwich sanitary areas. The 418 deaths referred to measles exceeded the corrected average number by 158; among the various sanitary areas this disease showed the highest proportional fatality in St. James Westminster, Marylebone, Hampstead, St. Saviour Southwark, Newington, and Camberwell. The 120 fatal cases of scarlet fever were 23 above the corrected average; this disease showed the highest proportional fatality in Hammersmith, Strand, Clerkenwell, St. Luke, and St. George-in-the-East sanitary areas. The 285 deaths referred to diphtheria exceeded the corrected average number by 120; among the various sanitary areas this disease was proportionally most fatal in Fulham, Chelsea, St. Luke, Bethnal Green, Mile End Old Town, Greenwich, and Plumstead. The 266 fatal cases of whooping-cough were 144 below the corrected average number; this disease showed the highest proportional fatality in Hammersmith, Fulham, St. Luke, Shoreditch, Bethnal Green, St. George Southwark, and Camberwell sanitary areas. The 65 deaths referred to enteric fever slightly exceeded the corrected average number; among the various sanitary areas the highest proportional fatality of enteric fever was recorded in City of London, Bethnal Green, and Lee. The 51 fatal cases of diarrhœa were 20 below the corrected average number. In conclusion, it may be stated that the mortality in London during January from these principal zymotic diseases was more than 13 per cent. above the average.

Infant mortality in London during January, measured by the proportion of deaths under one year of age to births registered, was equal to 137 per 1000, and was considerably below the average. Among the various sanitary areas the lowest rates of infant mortality were recorded in Chelsea, Stoke Newington, St. Martin-in-the-Fields, City of London, Rotherhithe, Lewisham, and Lee; and the highest rates in St. George Hanover-square, Westminster, Hampstead, St. Giles, Holborn, St. Saviour Southwark, and St. Olave Southwark.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

THE following have arrived from Hong-Kong on completion of a tour of service there:—Surgeon-Majors Stuart and Reade and Surgeon-Captains Borradaile and Beveridge. The following have embarked for India in the *Dilwara*:—Surgeon-Majors Barnes, Deane, Kay, and Barratt, and Surgeon-Captain Crawford, Surgeon-Majors Geoghegan and Woods have severally left Bombay and Madras for England. Surgeon-Lieutenant-Colonel H. Scott, retired pay, has been appointed to Halifax, Yorks., and Surgeon-Captain Davidson to the Women and Children's Hospital, Colchester. Surgeon-Captain Lavie has been posted to the North British District and Surgeon-Captain Hinde to Devonport.

ARMY MEDICAL STAFF.

Surgeon-Major Anthony Hickman Morgan, D.S.O., retires on retired pay.

INDIA AND THE INDIAN MEDICAL SERVICES.

Brigade-Surgeon-Lieutenant-Colonel Eaton A.M.S., is posted to the Nagpore District on rejoining this Command from Allahabad. Surgeon-Major Lyle, A.M.S., on arrival from England, is posted to the Bombay District on vacating the appointment of Deputy Assistant Adjutant-General for Musketry. 13th Bombay Infantry: Surgeon-Lieutenant Standage is appointed to the Officiating Medical Charge, vice Surgeon-Lieutenant-Colonel Halliday, on sick leave. 19th Bombay Infantry: Surgeon-Lieutenant Hooton is appointed to the Officiating Medical Charge, vice Surgeon-Major Ferguson, M.B., proceeding on sick leave. 25th Bombay Rifles: Surgeon-Lieutenant F. A. W. King is appointed to the Officiating Medical Charge, vice Surgeon-Major Anderson, transferred temporarily to civil employ. Surgeon-Major R. J. Baker, M.D., is appointed to act as Civil Surgeon-Superintendent, Lunatic Asylum, and Superintendent, Medical School, Hyderabad. The services of Surgeon-Captain F. P. Maynard, M.B. (Bengal), are placed temporarily at the disposal of the Foreign Department.

NAVAL MEDICAL SERVICE.

Staff-Surgeon John Dudley, M.B., has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet.

The following appointments are notified:—Fleet-Surgeon Stewart F. Hamilton to the *Unicorn*; Staff-Surgeon William H. Norman to the *Boscawen*. Surgeons: George Hewlett to the *Barracouta*; James Bradley to Haslar Hospital; and Alfred J. Picthorne to the *Speedy*.

VOLUNTEER CORPS.

Artillery: 1st Fifeshire: James Crawford Gibb Macnab, M.B., to be Surgeon-Lieutenant. 1st Worcestershire: Surgeon-Major R. W. Edginton M.D., resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement. *Rifle*: 3rd (Cambridgeshire) Volunteer Battalion the Suffolk Regiment: Surgeon-Captain F. M. Beckett to be Surgeon-Major. 4th Volunteer Battalion the Hampshire Regiment: Surgeon-Lieutenant W. H. L. Marriner is appointed to be Second Lieutenant. 17th (North) Middlesex: The appointment of Surgeon-Lieutenant P. S. Spokes, is antedated to Feb. 4th, 1896, in order to make him senior to Surgeon-Lieutenant John William Pare, M.D.

DEATH IN THE SERVICES.

Surgeon-Lieutenant-Colonel Dugald Blair Brown, F.R.C.S. Edin., A.M.S., at Meean Meer, Punjab, on the 27th ult., in his forty-ninth year. He was appointed Assistant Surgeon in 1872, and Surgeon in the following year, promoted to Surgeon-Major in 1884, and Surgeon-Lieutenant-Colonel in 1892. Surgeon-Lieutenant-Colonel Brown served in the Zulu war of 1879, and was present at the battle of Ulundi, for which services he was mentioned in despatches, and was granted the medal with clasp. He also served in the Boer war of 1881, with the Natal Field Force, and with the Burmese expedition of 1885–86, under Sir Harry Prendergast, in charge of the General Hospital of European Troops (medal with clasp).

"THE WAR OFFICE AND THE ARMY."

WE may call the attention of our readers to an article in the last number of the *Quarterly Review* on the above subject. It gives a succinct account of the changes and reforms that have taken place of late years, of the difficulties that have had to be encountered in their introduction, and of the parts played by different Governments and War Office officials—including the present and the late Commander-in-Chief—in the matter.

On Feb. 6th sixty-five patients were admitted to the Royal Victoria Hospital ex. s.s. *Teucer* from China.

On Jan. 23rd sixteen invalids left Bombay by the *Malabar* for conveyance to the Royal Victoria Hospital, Netley.

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Correspondence.

"Audi alteram partem."

"THE LONDON COUNTY COUNCIL AND INSANITY IN LONDON."

To the Editors of THE LANCET.

SIRS,—The writer of the leading article under the above heading in THE LANCET of Feb. 1st, in dealing first with the total number of lunatics for whom the County of London is responsible to find accommodation, takes the actual number of 12,118 on Jan. 1st, 1895, and deducts therefrom the number (10,104) on Jan. 1st, 1890, showing an increase of 2014, which he divides by 5, making an average annual increase of 403. But that number is only the mean of an increasing series. Taking the numbers (quoted in the article) for Jan. 1st, 1894—viz., 11,668—it is seen that the average annual increase to that date was 391. According to the annual returns of lunatics now to hand (not including 13 criminal lunatics) the total number of lunatics in this class had by Jan. 1st, 1896, reached 12,848 Calculating the annual average increase on this longer series of years it is found that the average has risen to 457. The averages for each successively extended series of years stand, therefore, as follows: 391, 403, and 457. Still, the last-mentioned number (457) is only the mean annual increase for the extended period. The highest number of the increasing series of which 457 is the mean must, of course, be much larger than the mean. What that number should be is arrived at by the careful actuarial analysis by Mr. J. W. Palmer of entrants and exits shown by the annual returns, in which variations of admission and *exitus* rates and their relations to each other have to be taken into consideration.

Dealing in a similar manner with all classes of London lunatics and imbeciles combined, it must be first pointed out that the statement in THE LANCET that the increase was almost identical with the class dealt with above—i.e., the certified insane—and averaged 400 per annum during the years Jan. 1st, 1890, to Jan. 1st, 1895, is incorrect. The total number on Jan. 1st, 1895 (excluding criminals), was 18,541, while on Jan. 1st, 1890, it was 16,359, showing an increase of 2182, which divided by 5 yields 436. For the previous series of years (Jan. 1st, 1890, to Jan. 1st, 1894) it was 420. Adding another year to the first-named series (the Jan. 1st, 1896, returns show a total on that date of 19,325) the average is raised to 494. The averages for each successively enlarged series were thus 420, 436, and 494; and this, as in the case of lunatics under reception orders, is still only the mean of the increasing increases, the highest number of the series being, as before explained, much higher than the mean. So far from the estimate of the asylums committee being an "alarmist" one, with the exception of the few months following the opening of the Claybury Asylum, the new cases of occurring insanity, in the class for which the County Council is responsible, show, since 1890, an almost constant percentage of the total number under treatment at the beginning of each year. Dealing with the argument that "in 1891 the number of London cases of insanity reported by the Lunacy Commissioners was 16,356, and equal to 3·95 per 1000 of the population, and at the same rate of insanity the cases in 1900 would be 18,229, giving an annual increase of less than 200 in the nine years," it is easy to show that the writer has entirely overlooked the great factor of yearly accumulation to which he draws attention immediately before. By comparing the estimated population for 1894 (excluding the City) it will be found that the calculated number of cases of insanity on Jan. 1st, 1894, reckoned as above, would be about 16,900, whereas the actual figures for that date show 18,041, or rather over 4 per 1000 of estimated population. The excess mainly consists of accumulation caused by the percentage of exits having fallen short of the percentage of entrants. The same remarks apply in a much greater degree to the class of cases for which the County of London is primarily responsible, for in that class the difference between the percentage rate of entrants and that of exits is about double that of the total cases of insanity.

It was upon the basis of the foregoing calculations, and after careful comparison of admission and *exitus* rates, in which the exceptional increase at the time of the opening of Claybury Asylum was not overlooked, that the number 600 was adopted as representing the present annual increase in certified lunatics for whom the London County Council is responsible to provide accommodation. It may be added that a large number of lunatics ultimately classified as workhouse and imbecile cases is first dealt with under reception orders by the asylums committee. Experience has, moreover, shown that considerable fluctuations in actual numbers must be expected from year to year, and the County Council has to provide accommodation sufficient to enable any abnormal temporary requirements to be coped with. It is scarcely sufficient to make deductions except upon a rather long series of years, but it may be pointed out that, taking the ascertained increases for the past two years together in reception order cases alone—viz., 457 for Jan. 1st, 1895, and 740 for Jan. 1st, 1896—the results agree remarkably with the estimates for the same two years taken together, which were given a year beforehand in each case in the asylums committee's annual reports as 550 and 600 respectively. The asylums committee can only base its estimate upon conditions which have existed since the formation of the County of London. As each additional year's returns of lunatics are received careful comparisons are made so as to ascertain more nearly the present normal rate of increase and to what extent it is caused by increase in "occurring" cases or by "accumulation of chronicity." Even supposing, as a remote possibility, that some unforeseen change in conditions should occur before the end of the present century which should have the effect of arresting or decreasing the present rate of increase, it may be pointed out that any slight excess in the number of beds could be profitably utilised for boarders or for promoting improved classification.

I am, Sirs, yours faithfully,

R. N. PARTRIDGE,
Clerk of the Asylums Committee.

Whitehall-place, S.W., Feb. 5th, 1896.

*** The new figures used by our correspondent relating to the year ending on Jan. 1st last show, it is true, further aggregation of certified cases of lunacy in London, but we entirely fail to recognise any trustworthy grounds for the assumption by the London County Council that an increase which is mainly, if not entirely, due to transfer from the existing reserve of uncertified cases and to "accumulation" will not only continue, but will be maintained at an increasing rate."—ED. L.

OUT-PATIENTS AND HOSPITAL REFORM.

To the Editors of THE LANCET.

SIRS,—I have just read with much interest your leading article on the Metropolitan Hospital Sunday Fund as well as your special article on the same subject containing the practical and earnest remarks of Dr. Glover on the evils of the out-patient system of our hospitals. These evils are real and call for speedy amendment. I do not concur with the late respected President of the Royal College of Surgeons of England, Mr. Bryant, who in his speech after the paper read by Colonel Montefiore on the Need of a Central Hospital Board for London, implied that the facts that Dr. Heron and Mr. George Brown referred to at that meeting were few, accidental, and even exaggerated. In a pamphlet that I have lately written on latent gastric ulcer I allude to the fact that the patient whose case I described went to ——— Hospital a few months before his death, and the disease the physician who examined him there thought him to be suffering from was written in the patients' book as "chronic dyspepsia"; but the necropsy proved that he had two gastric ulcers of long duration. This poor man, after waiting seven or eight hours, I am told, went away even without being able to obtain his medicine, and never went again in consequence. Two or three weeks ago a man came to me in much suffering and consternation on account of the great difficulty of swallowing. He said "he had been attending six or eight weeks without deriving any benefit as an out-patient at ——— Hospital." I found the patient had an organic impassable stricture of the œsophagus, probably caused by a cancerous tumour. He had been under the care of a learned physician, but his disease had not been diagnosed. I sent him again to hospital, but with a note to

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a surgeon, who has since successfully performed gastrotomy, and the man is doing well. When talking over this case to the surgeon who operated, and commenting on the fact of its non-recognition to him, he replied, "The truth is and the evil is that a patient may come to our hospital three or four times, and perhaps be seen each time by a different doctor," and this undoubtedly is not infrequently the case. That you may be able to verify this I send you a few further particulars, although not for publication.

I am, Sirs, your obedient servant,

Feb. 10th, 1896. FREDERICK H. ALDERSON, M.D.

*** Our correspondent sends us evidence of the second instance of failure of diagnosis in the case of an out-patient to which he alludes in his letter. We fail to understand why at the hospital in question members of the staff do not attend upon allotted days and see their own patients.—ED. L.

To the Editors of THE LANCET.

SIRS,—I have been reading a report of Dr. Glover's speech at the council meeting of the Metropolitan Hospital Fund advocating the appointment of a committee to investigate and report on the out-patient system of the hospitals, and, if you can afford the space, I should like to offer a few remarks. Dr. Glover is reported to have said that the out-patient system was an excrescence on hospital work and not essential to the hospital system, and that the casualty system was a further excrescence; that it was not fair to medical men, and had a bad reflex action on the profession; that it was not fair to the poor, who were often detained for hours; that it did not afford a good method of teaching medical students; that it did not make the fame of the hospitals; and that the system was not justified even by the medical men who administered it. That various reforms are desirable at many hospitals, especially the special ones, is widely conceded; but surely Dr. Glover will have great difficulty in sustaining the justice of his criticisms. How can he contend that the out-patient practice, as conducted by many conscientious, able, experienced, and hard-working men, does not contribute to the good reputation of a hospital both from a scientific point of view and otherwise? Further, I affirm that the poor do get an adequate return for the time and trouble expended by them. Their attendances seem to prove it; and under what system will they get a better? I cannot follow Dr. Glover's contention that the teaching in the out-patient room is a wrong method. It seems to me that the teaching is of the greatest value to the medical students and clinical assistants, and not to be acquired otherwise. Its value might be exemplified by endless examples. Under what other system is the student to acquire a competent knowledge of many conditions which he will rarely, if ever, meet with in the wards? I allude, amongst other things, to the earlier stages of disease processes; to the host of minor ailments which will occur to everyone; to various diseases, such as those implicating the skin, which require repeated observation and comparison to facilitate their correct diagnosis; and to many diseases of the throat, nose, ear, and eye. The working of the out-patient departments in the hands of different men imparts also lessons in other directions of the highest value. In view of the sweeping criticism directed by Dr. Glover against the out-patient system generally I fail to understand why he is prepared to let any trace of it remain. I should be extremely interested to hear what Dr. Glover proposes to substitute for the out-patient teaching and in what way the poor will receive better treatment.

I am, Sirs, yours faithfully,

OUT-PATIENT PHYSICIAN.

"WOMEN AND THE PROFESSION IN INDIA."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Jan. 18th last Dr. McReddie has written to show that there is a great need for lady doctors in India. This is certainly what appears to be the natural conclusion to those who look at the question merely from the outside; and that is why there is so much misapprehension about the subject and so much delay in the improvement of the general state of things. I have discussed the question fully elsewhere,[1] as the question of lady doctors in India is essentially a social question. In the briefest of words I will say that not only is there no need for women in the medical profession in India, but their presence is most undesirable and even detrimental to the interests of the community. So far, however, as qualified midwives are concerned there can be no two opinions. They are greatly needed, as male medical men are not generally, and perhaps will not be for some years to come, allowed to attend Indian women. With reference to Lady's Dufferin's scheme of "female medical aid," I need only say that the mere fact of native princes subscribing towards it does not show that there is any real need for lady practitioners in India nor does it prove the expediency of the scheme. On the other hand, the people of India are beginning to recognise that any exertions in this direction are futile, and the sooner "The Society for Providing Female Medical Aid" gives way to "The Society for Providing Qualified Midwives, Nurses, and Teachers" the better.

I am, Sirs, your obedient servant,

B. L. DHINGRA, M.R.C.S., &c.

Gordon-square, Feb. 5th, 1896.

[1] The February number of the Indian Magazine. (A. Constable and Co., Westminster.)

THE HEALTH OF THE ASHANTI FORCE.

To the Editors of THE LANCET.

SIRS,—In the special article on the Ashanti Expedition published in THE LANCET of Jan. 25th it is stated: "The results as regards the preservation of health are highly creditable to the medical service." Not many years ago such a report would not have been anticipated; on the contrary, we should have heard of much sickness and fever. Nowadays the easier and quicker mode of transport and the excellent accommodation and comforts of the soldier generally, coupled with enlightened science, have had everything to do with the improved state of this branch of the service. For the last twenty years medicine has been making rapid strides and particularly in the direction of sanitary science. So rapid has been this progress that it has affected all classes from the State downwards to those who live in "slums." This cycle of change has necessarily improved the state of affairs in the Army Medical Department, so that we are far ahead of the army surgeon of 1855. He is a different man altogether both in general acquirements and general education. We are aware that the army medical officer is as well informed and educated as his fellow combatant officer; that his duties are equally trying and as onerous—that this branch of the service with the commissariat are the two most important. It is satisfactory to know that the British army and navy are well represented by members of the medical profession, for modern warfare with machine guns demands most skilful medical care. If one considers for a moment the perfect arrangements of this recent campaign and all the forethought devoted to the soldier's requirements, from his drink to his personal dress, the good results obtained are not to be wondered at. It would indeed be instructive to have recorded in your paper a complete report as to the diet, regimen, and medical arrangements of this little army to Ashantiland. Was quinine used in a routine way or any other prophylactic measures adopted beyond what are known in modern preventive medicine? Since the Crimean War the whole world of medicine has changed, and it would be advantageous to hear from medical officers of this recent expedition the action of any of the newer drugs such as antipyrin, antifebrin, &c. on the bacillus malariæ. The fact remains that the science of surgery and medicine has become revolutionised from the introduction of the antiseptic system in 1880 or thereabouts. Before this date things in the surgical and medical world were quite different. Erysipelas, both medical and surgical, was a common complaint, wounds used to emit stinking odours, wards had to be closed, and the dressers and surgeons alike suffered from what was called "hospital throat." Puerperal fever, diphtheria, small-pox, scarlet fever, enteric fever, and typhus fever were pretty frequently present in towns, although the latter had considerably abated and was becoming uncommon and less virulent. At this epoch there were much jealousy and rivalry among the members of the surgical staffs of the various hospitals, and it remains for this generation of surgeons to improve upon "this perfect system of cleanliness" which the world owes to Sir Joseph Lister. Not only has the surgeon advanced in this line, but he has gone further afield and performs operations of a most heroic nature which

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would not have been countenanced twenty years ago. The birth of antiseptic surgery set the medical scientist thinking, and thus our latest addition "bacteriology" came into being. Finally, we have plenty of proof of the progression of the sanitarian in our colonies and elsewhere; we only want to spur those of our neighbours who are behindhand. As the bacteriologist advances and new antitoxin remedies are produced, perhaps in a few decades that most insidious, variable, and vicious parasite the bacillus malariæ will be conquered and cease to bring upon us so much pain and sorrow as it has done recently.

I am, Sirs, your obedient servant,

Alton, Hants, Feb. 8th, 1896. J. F. BRISCOE.

A POINT UNDER THE INFECTIOUS DISEASES (NOTIFICATION) ACT.

To the Editors of THE LANCET.

SIRS,—May I ask you to insert the enclosed copy of a letter from the Local Government Board. The town clerk of Peterborough informed me that my conduct in reporting every case of infectious disease was "not justifiable," but that I should only report one in a house. Considering this opinion to be incorrect I wrote to the Local Government Board. The answer fully supports my opinion.

I am, Sirs, yours truly,

The Mansion House, Peterborough. LEONARD CANE, M.D.

[COPY.]

"Local Government Board, Whitehall, S.W., Feb. 11th, 1896.

"SIR,—I am directed by the Local Government Board to advert to your letter of the 30th ultimo, and, in reply, I am to state that, as the Board are advised, a medical practitioner is required by the Infectious Disease (Notification) Act, 1889, to give notice to the medical officer of health of the district respecting *every patient* suffering from an infectious disease within the meaning of the Act whom he may attend or be called in to visit (unless such patient is an inmate of a hospital in which persons suffering from an infectious disease are received), and that the town council must pay the prescribed fee for *each* certificate, whether or not it relates to a person belonging to a family in which the presence of infectious disease has already been notified.

"I am, Sir, your obedient servant,

"C. W. CALTON, Assistant Secretary.

"L. Cane, Esq., M.D., the Mansion House, Peterborough."

*** It is clear that any other interpretation of the Act would be impossible and lead to endless confusion.—ED. L.

"UNQUALIFIED ASSISTANTS AND THEIR PRINCIPALS."

To the Editors of THE LANCET.

SIRS,—Having read your interesting article on the employment of unqualified assistants I may be allowed to point out that the directions issued by the General Medical Council on the subject are admittedly too vague and indecipherable to be of any practical application. I venture, however, to bring before your notice one point on which the Council might be asked to place its veto in *no indefinite* terms, and that is with regard to discountenancing the system, which is by no means extinct, of locating unqualified men in branch surgeries, because it is, or should be, obvious to any that under these circumstances such unqualified practitioners are to all intents and purposes performing the medical functions of registered practitioners. Quite recently a case has come to my notice by accident in which an unregistered practitioner, under conditions which I have described, having seen a child which died, his principal, being unable to grant a certificate, represented to the coroner "dentition" as the probable cause of death—certainly a rather skilful diagnosis for one who had not seen the child alive. Now let us suppose that an inquest had been duly held in this case and that the coroner had forwarded his notes to the Council with a view of their taking cognisance of this illicit kind of practice, of what earthly use could such evidence be to the Council, seeing that it could only be evidence of that which is already self-evident—viz., that practice is conducted in these branch surgeries, as I have before observed, to all intents and purposes as though qualified men resided on the premises; and that the only practical distinction between "covering" in this sense and "covering" as applied to protecting a quack who practises on his own account consists in the difference that in the latter case the unqualified man directly pockets the cash, whereas in the former he puts it into the pocket of his principal? Under these considerations I would suggest that the Council might hold the practice I have described, after due notice, as "infamous conduct in a professional sense," and such a decree would operate with justice towards the public, with justice towards well-disposed registered practitioners, and with no undue harshness towards the unqualified assistant.—I am, Sirs, yours truly,

Queen's-road, S.E., Feb. 2nd, 1896. CLEMENT H. SEES.

*** As a matter of fact the General Medical Council does take the view of an unqualified assistant in charge of a branch practice held by our correspondent and has often been guided by it in actual cases. Perhaps our correspondent's letter may induce the Council to be more explicit in its condemnation of such a system, but such a use of an unqualified assistant is certainly improper and would render a practitioner liable to a charge of covering.—ED. L.

To the Editors of THE LANCET.

SIRS,—Referring to the inquest held by Mr. Wyatt on the body of Alice Emily Hall, upon which you comment in THE LANCET of Feb. 8th I have to say your remarks receive my entire adhesion. I have always been to the fore in the ranks of those of our profession who rigidly oppose the abuse of the use of unqualified assistants. But in this case the action of my assistant, an advanced hospital student who has passed in surgery, &c., and who is now actively reading for the medicine and midwifery final, has my entire approval. I not only endorse his action in the matter, but I desire to state emphatically that I should have been extremely annoyed and hurt had he so far forgotten his manifest duty as to have refused to accompany the weeping mother home for the purpose of rendering immediate aid and satisfaction to her in her distress. At a time of trouble and in extreme emergency I hold that the best help *available* at the moment must be obtained and given. In the present instance the mother alleged she had been to several medical men, only to find them out—it was midday. She was told that I was out also. "Oh, cannot you come and tell me whether my baby is dead or no?" "Yes, I can, and I will, and the doctor shall follow on." Really, Sirs, need I say anything more?

I am, Sirs, yours faithfully,

Stockwell-road, S.W., Feb. 9th, 1896. JOHN P. HENTSCH.

A MISCHIEVOUS IMPERSONATION.

To the Editors of THE LANCET.

SIRS,—It has just come to my knowledge that a certain person, who will shortly be charged with the offence, has been writing to two medical friends of mine begging for money. He signs himself by name and represents that I am in monetary difficulties and about to resign my practice at Ladbroke-grove, which, of course, has no foundation in fact. As probably he has written to many others besides the two I have knowledge of, will you kindly insert this in your paper? I am, Sirs, yours faithfully,

76, Ladbroke-grove, W., Feb. 10th, 1896. G. L. TURNBULL.

"EXAMINERS AND EXAMINEES."

To the Editors of THE LANCET.

SIRS,—May I trespass on your valuable space for insertion of the following facts, which I have no doubt will be of as much interest to examiners and candidates alike as they were of painful experience for me? At the recent (January) final examination of the Conjoint Board for the diploma of M.R.C.S. and L.R.C.P. I was a candidate. At the *viva-voce* in medicine I took my seat opposite a certain examiner (whose name I shall not mention here) who by his manners caused me to become considerably perturbed and nervous, and, as the following will show, brought me within an ace of losing my temper and as a certain sequence my chances of success in examination. Now, some candidates have had the bitter experience, from time to time, of being bullied by examiners, but few, I am glad to say, have had the unique privilege of being grossly and unreasonably

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insulted in the manner I have been. After some few questions my examiner asked me to test some urine, which I accordingly did. In a very gruff way he asked me to enumerate the tests. I did so, giving as one molybdic acid. "What," said he, "molybdic acid?" "Yes, sir," I replied, "I've used it." "Humph, what hospital do you come from?" was his next question. I replied, "St. ———'s." He then said, "Do you mean to tell me they supply the students there with molybdic acid as a test?" "Yes, sir," I replied again, "I and other students have used it as a test at St. ———'s." At this point my examiner became quite annoyed, if not enraged, and bending his head towards me across the table he exclaimed, "Well, I don't believe you!" Truly the mental strain a candidate undergoes under ordinary conditions during examination is severe enough, but when he meets with an examiner who, not satisfied with being possessed of a gruff, snappish manner, deliberately uses language implying that the candidate is a liar, then the probable success of the poor candidate is reduced to a minimum. His observation stunned me for the time. I have since wondered whether the same examiner would be so ready to give me the lie if conversing with me in a club or in private life. I venture to say No, for under the latter conditions I could demand satisfaction and an explanation. But in the examination hall I was a candidate and he the examiner. In conclusion, I will ask you, Sirs, whether the Council of the Conjoint Board recognise a code of etiquette insisting upon courtesy as between examiners and candidates. Apparently some exceptional examiners forget that candidates pay high fees to be examined and have their knowledge in particular subjects tested, but not to be insulted. I remain, Sirs, faithfully yours,

Feb. 10th, 1896. A SUCCESSFUL CANDIDATE.

"THE ABORTIVE TREATMENT OF QUINSY."

To the Editors of THE LANCET.

SIRS,—Dr. Hingston Fox ascribes the rapid cure in a case of tonsillitis to the application of cocaine, but says some vomiting was caused. May I call attention to the following passage in the classic Watson: "When you catch the disorder at its very onset you may sometimes succeed in cutting it short by an emetic." I have had this success before the birth of cocaine. I am, Sirs, yours truly,

Fellows-road, N.W., Feb. 7th, 1896. H. F. S.

ÆSCULAPIAN SOCIETY OF LONDON.—A meeting of this society was held on Feb. 7th, Dr. Willoughby, the President, being in the chair. Dr. L. Durno read notes of four cases of Floating Kidney complicated with Hydronephrosis evidently due to Kinking of the Ureter. There was in each case a history of strain or other injury preceding an attack of severe abdominal pain, with sickness, frequent micturition (in one case this symptom was said to be absent), a defined swelling in the anterior lumbar region, subsiding as the acute symptoms passed off. The affected kidney could then be felt moving freely. In one case there was suppression of urine for twenty-four hours, and its subsequent passage was attended with evident diminution of the abdominal swelling and relief of all symptoms. Poultices, moderate purgation, vapour baths, and pilocarpin effected the relief of the more urgent symptoms, while an abdominal belt and pad were useful in controlling the mobility of the kidney.—Mr. T. Hampton showed the following:—1. A man aged forty-four with deep and extensive Rodent Ulcer of the Face. The whole of the right side of the face, with the upper jaw, right eye, and nose had been destroyed. The left turbinated bones and pharynx were freely exposed, the left eye lay bare in the orbit, and brain pulsation was visible at the basis cranii. The disease was of eighteen years' duration. 2. Sarcoma of Testes (morbid specimen). 3. Rupture of Bladder (morbid specimen). The lesion had resulted from the patient, who had been drinking, running against a standard post. Laparotomy was performed, a rent at the right side of the bladder near the urachus was stitched, and a Keith's drainage-tube left in. While apparently doing well the patient died suddenly, death being ascribed to cardiac dilatation, from which he suffered, and syncope. 4. Abscess in the Upper End of the Tibia (morbid specimen).—Dr. Ostlere showed a large Gall-stone passed per anum. A singular fact in this case was the absence of any history of pain or even illness.

THE BATTLE OF THE CLUBS.—XXI.[1]

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 379.)

LEICESTER:—THE LEICESTER AND LEICESTERSHIRE PROVIDENT DISPENSARY.

IN Leicester the working classes are particularly prosperous and well organised. Even before the Norman Conquest the people of Leicester had discovered the advantages of self-government. They struggled hard against the Norman barons to maintain their municipal liberties. From the earliest times the inhabitants of Leicester understood the benefits to be derived from organisation and coöperated together in defence of their mutual interests. Consequently, when the movement in favour of friendly societies and medical aid associations was first initiated their advantages were readily appreciated by the working people of this town. As a result it may now be said that a good 75 per cent. of the entire population belong to medical aid organisations of one sort or another. The greatest of these is the Leicester and Leicestershire Provident Dispensary, which now numbers some 38,600 members and employs twenty-five medical men, including some of the most distinguished practitioners of the town. This society was established as a general dispensary in 1833, and became a provident institution in 1862. According to the printed statement, "The object of this institution is to place medical assistance within the reach of the working classes of the town and neighbourhood by means of their own small periodical payments"; and "The members shall consist of servants, working people, their wives and children, who, in the opinion of the board, are unable to pay for medical advice in the usual manner, and such sick benefit societies as the board of governors may admit, on such terms as in each case they may consider proper." This is the rule, and were it strictly enforced the principal complaints against the dispensary would no longer be justified. The next rule goes on to say that "any person wishing to become a member shall leave his or her name, age, residence, and occupation at the dispensary or one of its branches, and deposit one month's subscriptions, 2*d.* for card, and an entrance fee of 1*s.*" Each medical officer receives every week a list of the new candidates for membership, and it is the medical man who has to say whether they are eligible. One of these lists was shown to me, and one of the candidates was described as a grocer. There was no explanation, however, indicating whether he was a master grocer owning a large shop and making a good income, or whether he was merely a grocer's assistant living on very slender wages. How was the medical officer to find this out? He had not the time to go round and institute inquiries concerning the numerous candidates. Sometimes, however, it happened that he knew that the candidate was not a proper person to belong to the dispensary and could well afford to pay medical fees. What in that case is to be done? If the medical officer notifies to the committee that the candidate is not a proper person the money deposited is returned and the candidate is told that the medical officer objects to his being accepted as a member of the dispensary. The candidate is naturally disappointed and angry, he bears a grudge against the medical officer, and when he is ill he certainly will not seek his advice. Thus the medical officer, when he attempts to apply the rule, loses both club patient and private patient.

As it is generally considered better to have a club patient than no patient at all, the medical officers do not exercise a strict control. Thus any number of persons are members of the dispensary who could well afford to pay. One member is a town councillor, others are publicans and tradesmen or rich manufacturers. The latter have generally joined the

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham; (18) Jan. 25th, 1896, Club Practices in Rural and Mining Districts; (19) Feb. 1st, 1896, The Formation of a Provident Medical Association at Folkestone; (20) Feb. 8th, 1896, The Manchester Medical Guild and Medical Aid Associations.

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dispensary when only workmen. They have saved money and, little by little, became small employers, and, finally, large manufacturers. They argue that they have acquired vested rights in the dispensary. They paid their subscriptions when young and poor, and now that they are old and begin to want medical attendance they are not going to sacrifice the advantage they have paid for during all their lives simply because they have been successful and acquired wealth. Yet the same class of individual generally behaves in quite a different manner if, instead of belonging to the Provident Dispensary, he happens to belong to a friendly society. In the latter case he is entitled not merely to medical aid but to sick benefits. Now, it is a peculiar and characteristic fact that the wealthy members, when ill, rarely draw their sick benefits. If they did so the fact would be known to all the other members of the friendly society. This would lead to a considerable amount of gossip, and people would not fail to say that it was shabby for such rich men to draw sick pay from a fund in the main subscribed by working men and meant to benefit only the poorer classes. The rich man, jealous of his good reputation, consequently abandons his vested interest and makes no claim for sick benefits. The money that he has subscribed goes to enrich the friendly society for the benefit of its poor members. This is as it should be. An assurance against the effects of poverty should not be made to apply where poverty has ceased to exist. The righteousness of this action is, unfortunately, not so well understood when there is no publicity. If sick benefits are claimed it is known to everybody, but medical aid can be obtained without its being known to anyone. If the rich man draws his sick allowance the payments effected must, of course, be entered into the books and appear on the balance-sheet; but if the rich man calls upon, or sends for, the club medical officer nobody knows anything about it. This does not figure in any books or reports. Thus there are a considerable number of wealthy members of friendly societies who derive no benefits whatsoever from their societies except medical aid. They scruple to take the money of the friendly society, but they have no scruple in depriving the medical man of his fees. It is astonishing how generous, how magnanimous, these men become when exposed to the full light of publicity; but when no one sees and no one knows their conduct is very different. For instance, a well-known practitioner told me that he had to attend a member of the Manchester Unity of Oddfellows. This man killed himself by excessive drinking, thus by this vice entailing upon the club medical officer more work than would have been necessary in the ordinary course of nature; yet though this man was attended even on his death-bed by his club officer, whose services he obtained for only 4*s*. a year, it was found when his will was opened that he had left a fortune of £10,000.

Dr. Meadows, President of the Leicester Medical Society, with whom I had occasion to discuss grievances of this description, thought that medical officers in the service of friendly societies should insist on the members drawing their sick pay. They should refuse to attend those who did not draw their sick pay. If a man was sufficiently prosperous not to need his sick allowance he was rich enough to pay a proper fee to his medical attendant. If a rule to this effect could be established and strictly enforced it would make an immense difference to the friendly societies. As matters now stood these societies were enriching themselves at the medical man's expense. Another wealthy man was a member of a friendly society and required constant medical attendance though he only paid 1*d*. a week. His wife did not belong to any club and was very delicate. When the club medical officer called on the husband he was very frequently asked to give advice to the wife. For the husband he could make no charge, but he duly sent in a bill charging 5*s*. for each consultation given to the wife. On one occasion this bill amounted to £16 and was paid without the slightest difficulty or complaint. It is evident that if £16 was not too much for a year's medical attendance on the wife, 4*s*. 4*d*. was too little for a year's medical attendance on the husband.

These abuses also exist with respect to the Leicester and Leicestershire Provident Dispensary. Members above fourteen years of age pay 1*d*. a week, those under fourteen ½*d*. per week. A man and wife and all their children under fourteen can be entered for 3*d*. per week. There is no other limit to age. There is no examination as to the health of the members previously to their admission, so that persons of unsound constitutions or suffering from chronic diseases can be entered on the books of the dispensary and at once entail an immense amount of labour on the medical officer. Nor, as already explained, is there any efficient investigation to prevent the admission of the wealthy. Occasionally, when it is notorious that a person is too well off to belong to such an institution the agents refuse to call to collect his money. In that case the rich member will send in his subscription, and the clerks, who have no interest in the matter one way or the other, rarely refuse to accept the payment. Thereupon the wealthy member, who has the card on which his payments are duly entered, calls upon the medical man who on the presentation of this card cannot refuse to see him. Many very elegantly dressed women call at the dispensary for drugs, and one of these dispensary patients was, her medical attendant assured me, worth £4000. The fact that wealthy people belong to this dispensary is all the more reprehensible as the institution is essentially a charity. It cannot be compared with the self-supporting clubs. During the ten years from 1884 to 1893 the sum of £3577 10*s*. 8*d*. was charitably subscribed in aid of the dispensary, and a sum of £3629 19*s*. 3*d*. was derived from donations and legacies. Thus in ten years the charitable aid given to the Leicester Provident Dispensary amounted in all to £7207 9*s*. 11*d*. Further, the amount paid to the medical officers is so small that their services must be looked upon in the light of a charity. It is only during last year that they have been paid 1*s*. 9¾*d*. per patient. This is an excess of ¾*d*. The sum of 1*s*. 9*d*. had never before been surpassed. Indeed, it is so well recognised that 1*s*. 9*d*. is the usual sum to be paid to the medical officers that in the event of its being possible to exceed this sum there is a rule stipulating that only half the surplus shall be given to them, the other half being handed over to the management fund. By the way, this latter fund is called the honorary fund, a title which Artemus Ward would certainly define as having been "wrote sarcastik." Never was there a society of this description in which less honorary work is done. The most astounding fact about the Leicester Provident Dispensary is that, though it is constantly appealing to the munificence of the charitable, there is no earthly reason why it should not be self-supporting. The subscription is 4*s*. 4*d*. a year. Many medical aid clubs and associations take smaller subscriptions, pay all their working expenses, do not receive a penny from charity, and yet give a better remuneration to their medical officers. There were in 1894 no less than 38,610 members, who paid subscriptions to the amount of £6865 0*s*. 11½*d*., including midwifery fees, which may be estimated at about £700. Out of this sum the medical officers received only £3530 5*s*. 7*d*. It is true that they do not provide the drugs; the medical officers prescribe and the patients fetch the drugs from the central or one of the eleven branch dispensaries. Where the medical officers themselves dispense to club patients who pay a penny a week, I have rarely failed to inquire what was the cost of the drugs. The medical officers, in answer to my questions, have generally stated that out of the 4*s*. 4*d*. received per patient per annum they on an average spent sometimes a quarter, but more generally a third, of this sum for their drug bill. Therefore, as the subscriptions amounted to more than £6000 I expected the drug bill would exceed £1500; but I found, on the contrary, that it amounted to only £795 13*s*. 3*d*. Under these circumstances, I was not surprised to hear that there had been complaints as to the quality of the drugs. In 1887 a public exposure was made and a meeting convoked to whitewash the management. In the report published of the proceedings it was not stated that medical men present had protested against a resolution of approval which was intended to exonerate the management with regard to the quality of the medicaments.

Adding £15 5*s*. 9*d*.—the sum paid to the surgeon-dentist—to what was given to the medical officers and the drug bill I find that a total of £4341, or 70 per cent. of the subscriptions, was expended in medical relief. But over and above the 30 per cent. remaining in hand the honorary fund amounted to £1496 11*s*. 2*d*. What becomes of this enormous balance, represented by the difference between the sum usefully expended in drugs and medical fees and the sum actually received? It appears that in 1894—apart from £396 4*s*. 3*d*. given as collectors' wages—salaries to clerks, &c., amounted to £1376 6*s*. 9*d*. Out of this latter sum the manager received no less than £600. The most popular

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medical officer in the service of the dispensary, who has something like 5000 members on his list, and who is obliged at times to see as many as 100 patients in a day, received £480 5*s.* 7*d.* Which of the two, the medical practitioner or the manager, did the most work, and, above all, which of the two did the most useful work? Why should medical men attend patients for the munificent payment of 1*s.* 9*d.* per annum so as to provide a comfortable salary of £600 a year to a layman? It is true that the manager has built up the dispensary out of a small beginning and made it the powerful institution one sees to-day, but the medical profession could have done this for themselves without the aid of any outsider. Then is it prudent, wise, and safe to place in the hands of a layman the immense power this manager possesses? Up to the year 1890 all the medical officers of the dispensary had to make an annual donation to its funds of one guinea. Then, in common with all other charitable subscribers, they became governors of the dispensary and were also *ex officio* members of the managing committee. But when complaints arose this rule was altered and it was decided that only six out of these guinea subscribers should have a right to be present at the committee meetings. Many of the medical officers of the dispensary are also medical officers to various clubs or medical aid societies, notably the London and Manchester Industrial Assurance Company. One of the medical officers of the Leicester Provident Dispensary had purchased his practice in Leicester, and it included a branch of the London and Manchester Industrial Assurance Company. He was, however, suspected of having published a hostile criticism of the dispensary, and was forthwith called to account. As a sort of punishment he was told that he must give up the London and Manchester Company, though he had been allowed to exercise this practice for several years and had bought it with hard cash. The other medical officers in the service of the Leicester Provident Dispensary were not treated in the same way, but they were not suspected of having written to the press. As matters now stand, the medical officers are dependent upon the manager and upon the governors. Anybody can be a governor who gives a subscription of £1 or upwards to the Leicester Provident Dispensary. Clergymen, benevolent old ladies, rich manufacturers, all sorts and conditions of persons, who are moved either by high motives of charity or by a meaner love of ostentation and patronage, dole out their guineas and become governors of the Leicester Provident Dispensary. The medical officers have to pay court to these governors; on their decision, on their votes, depends the fate of the medical officers; and all these donors, doubtless very worthy and estimable people, may be called to decide a purely medical or pharmaceutical question, such as the quality of drugs, though they possess no sort of technical knowledge. Not only the medical men, but to some extent the patients also, are dependent on the decisions of a lay manager and a lay committee. If some of the medical officers say that the drugs are not of good quality this opinion can be overruled by a body of governors whose only qualification to judge the question is that they have subscribed a few guineas. Is it safe that the health of the 38,000 members of this dispensary should be entrusted to the keeping of a lay manager and a body of lay governors? Is it in keeping with the interests and the dignity of the profession that medical men should be subservient to, and dependent upon, lay organisation of this description?

(To be continued.)

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Manchester and Salford Sanitary Association.

THE annual meeting of the above association was held in the Manchester Town-hall on the 4th inst. Dr. D. J. Leech presided. The report stated that the committee had decided to secure legal status for the association by obtaining a charter of incorporation under the Board of Trade. The only too common complaint was made of an inadequate subscription list, so that the committee was always hampered by want of funds, which prevented the full development of the main purpose of the association, which was to teach people the laws of health. Such varied topics as the water-supply, carbolic acid as a poison, milk-supply, lamp accidents, and the sewage question had been considered during the year. The report also gave information as to the Smoke Abatement League and the Open Spaces Committee, which last has brought its labours to a close. This is much to be regretted, for though it has no doubt awakened and interested public opinion, and "might claim to have provided examples of all the types of places of recreative exercise needed by the inhabitants of crowded towns," yet its continued help in keeping public interest alive and in assisting to bring pressure when needed on public bodies is still desirable. Mr. F. Greg no doubt disturbed the self-complacency of those who think Manchester needs no further improvement by saying "as a matter of fact there is not in Europe so mean a city for its size and importance as Manchester. It has no public buildings to speak of, no parks to speak of, and in general no amenities." There are, indeed, many fine buildings—as the Town-hall, the Assize Courts, and the Owens College, to name no others—but they are not seen to advantage as their sites are poor. By far the best position is held by the Royal Infirmary, and in the not remote future it is hoped the present building will be replaced by one worthy of a great city. Their beauty, too, is marred by the smoke which soon reduces our stone buildings to a dingy black. It must be confessed also that our parks and open spaces are not to be compared with those of London or some other cities, but for all that they are valuable as hygienic agents, and the feeling that more are wanted was very clearly shown at the last meeting of the city council. In speaking of air pollution Mr. A. E. Fletcher, late chief inspector of alkali works, said that the question of domestic smoke must be left till that of factory smoke, which is far more easy to attack, had been dealt with. He explained the steps which had been taken by the association formed in Manchester six years ago to test appliances for the prevention of smoke. The report of the special committee, to be issued immediately, would amply show that smoke could be prevented if sufficient pains were taken, and he stated that his experience was that "it was much better to point out in a friendly way how things could be done than to use force in the shape of a prosecution." Mr. Horsfall said that there need be no nuisance from domestic smoke, so far, at any rate, as houses where servants were kept were concerned, as the problem was entirely solved by the use of the Arnot grate. This grate, however, will not solve the difficulty in cottage houses, and more may be hoped in towns from cheaper gas and improved gas fires and stoves.

Election of Salford Borough Coroner.

Twelve candidates applied for this appointment—six solicitors, one barrister, and five members of the medical profession, two of whom are also barristers. Three were selected to attend before the Salford Council—Mr. A. Holmes, a Salford solicitor; Mr. J. F. Price, son of the late coroner, who has for some time acted as deputy for his father; and Mr. J. G. Gledhill, who is M.B., C.M.Glasg., L.S.A., and also a barrister of the Middle Temple. In the end Mr. Holmes was elected by a substantial majority. It is thought that Mr. Gledhill prejudiced his cause by a letter, which he subsequently withdrew. It is unfortunate that the community will be deprived of the advantage that would have resulted from his special knowledge, though no doubt Mr. Holmes will discharge the duties of his office with ability and discretion.

Another Case of Carbolic Acid Poisoning.

Mr. Smelt, the deputy city coroner, held an inquiry on the 7th inst. as to the death of a child two years of age from swallowing carbolic acid. It seems that he was left alone in a room where on the mantelpiece there was a beer bottle containing carbolic acid. The child got hold of it and drank some of the acid. His mouth and throat were badly burned, and in spite of medical care, first at home and then at the Royal Infirmary, the boy died. The coroner spoke strongly as to the carelessness and stupidity of people keeping corrosive poisons in beer or gingerbeer bottles commonly used for drinking purposes. "He would like to see it an offence for keeping a poison in a bottle other than a proper poison-bottle. They had had no fewer than thirty cases of carbolic poisoning in that court during the past twelve months, chiefly of children." The verdict was, of course, "Accidental death." The Sanitary Association seems to consider the deaths from this poison too few to justify any attempt to get it scheduled. It would be interesting to know the number considered necessary. One coroner can supply more than

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thirty towards it in twelve months. How many can all the coroners throughout the country supply?

The Widnes Fatality.

In your annotation on the cases of "Poisoning by Gas in Sewers" at East Ham and Widnes you ask "who is responsible" for allowing men to jump into death-traps. Judging from the result of the inquiry at Widnes into the circumstances attending the death of Luke Farrall, Patrick Fahey, and Thomas Atherton, who lost their lives in a sewer at Muspratt's Works of the United Alkali Co. on the 27th ult., it appears that no one is responsible, that these deaths were accidental, and that therefore they could not have been foreseen. "The jury, after prolonged deliberation, returned a verdict of 'Accidental death,' and expressed the opinion that greater precautions might have been used to enforce the use of ropes and respirators. They recommended that the new rule now produced by the United Alkali Co. be quickly enforced." The rule referred to is not given in the report, and the verdict of "Accidental death" is so qualified that it seems as if the jury considered the accident one that could have been provided against, and ought not to have occurred, and therefore was not an accident; but they did not wish or were unable to find anyone responsible.

Chorlton-upon-Medlock Dispensary.

This is one of the older medical charities in Manchester, having been founded in 1826. The annual meeting was held on the 5th inst. Five thousand and seventy-four patients were treated during the year, an increase of 526 on the previous year. "Year by year," the report says, "the institution grows in favour with the respectable poor," &c., but it goes on to say it is a matter of regret that the annual subscriptions are year by year falling off "owing to deaths and removals from the neighbourhood." Does this show that the present generation is less charitable than those that have gone before, or is it that its benevolence flows in fresh channels? The balance due to the bank had increased from £52 18*s.* 10*d.* to £133 18*s.* 8*d.*, but £500 are wanted to provide a consulting-room on the ground floor and a larger, more convenient, and better ventilated waiting-room, and the committee appeals for special help. The reports of medical charities are not cheerful reading. At a special meeting of trustees Dr. W. E. Fothergill was elected honorary medical officer for the out-district of Moss Side.

Manchester and Salford Hospital for Skin Diseases.

The annual meeting of the subscribers was held at the hospital in Quay-street on Friday last. During the year 1895 there were 3524 new out-patients, the numbers showing a gradual increase year by year. Many come from places more or less distant, as Bolton, Macclesfield, Oldham, Stockport, and Warrington. Until last year no in-patients were received, but in August last six beds were provided and fifteen cases admitted by the end of the year. The usual statement was made as to the abundance of charitable work to be done and of means insufficient for its accomplishment. "They had to face the fact that the establishment of the much-needed in-patient department would render the cost of working the hospital in future much higher than in 1895. They estimated that double the present subscriptions were absolutely necessary if this very useful charitable work was to be carried on." The deficiency on last year's working was £91. The hon. treasurer seemed to think it a favourable sign that so large an amount (not reported) was subscribed by the patients; but it suggests the inquiry—How many of them could afford to pay the private practitioner?

Manchester Royal Infirmary.

It is a satisfaction to find from the report of the Board of Management for the year ending Dec. 31st, 1895, that there is not the depressing story of failing income that one has almost come to look for as the rule in the reports of medical charities. The income of the Royal Infirmary for 1895 was £22,627, and of the Convalescent Hospital £2811, the total being £25,438, while the total for 1894 was £24,840. There is great need for an increase in the accommodation for patients, but many difficulties exist, and wide differences of opinion as to the best mode of dealing with them. A special committee is now engaged in considering the whole question. The transfer of the Monsall Fever Hospital to the Corporation now only awaits the sanction of Parliament to its being carried into effect. The work of the infirmary in all its departments continues to grow. Last year there were 4518 in-patients and 35,569 out-patients. In order to prevent abuse of the charity the circumstances of 15,931 of the latter were investigated by the District Provident Society, and 584 only were not fairly entitled to free hospital relief.

Feb. 11th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

THE annual meeting of the governors of the Royal Infirmary, Newcastle-upon-Tyne, was held in the institution on the evening of Thursday last. The Mayor occupied the chair, and there was a large attendance of governors, among whom the working men of the town and neighbourhood were conspicuous. The adoption of the annual report was moved by the Earl of Ravensworth, and in his remarks he drew attention to the increasing amount of work the infirmary was doing and to its financial position. The report showed that 3751 in- and 20,756 out-door patients, besides 12,642 casuals, had been treated during the year. The average cost of each in-patient had been £3 13*s.* 1¼*d.*, and the gross cost of each occupied bed £51 2*s.* 4¾*d.* The total ordinary income had been £12,336 15*s.* 6*d.*, an increase over last year's income of £1321 14*s.* 3*d.* The expenditure had been £13,543 18*s.* 8*d.* The amount contributed to the funds by subscriptions from the working men was upwards of £3000. On the whole the financial position of the infirmary was better than it had been for many years. In seconding the adoption of the report the Mayor expressed his admiration for the work done, regretted the overcrowded condition of the house, and told the meeting the corporation were wishful to do all they could to assist the governors in obtaining a site for a new building, but added his own feeling that the site the governors were asking for would not be granted, as it was a part of the town moor, and in the opinion of the town council should not be built upon. There was a very strong expression of opinion from several governors that the town council was not anxious to help the infirmary in its endeavour to obtain a new site. All the available land upon which an infirmary can be built belongs to the corporation, so that although it may not be the duty of the town council to provide or to assist in providing a site it is quite evident no new infirmary can be erected in Newcastle upon any other site than that upon which the present building stands without the help of the corporation. When the infirmary was erected, now some 150 years ago, the town council took a very different view of its responsibilities and gave a site. What was possible then is possible now, and it is to be hoped a site will be found. The town council has appointed nine of its members to talk the matter over with nine members of the infirmary committee. One meeting of the joint committee has been held, over which the Mayor presided. It was attended by the nine members of the infirmary committee and by two members of the town council. At the next meeting it is hoped a greater number of the town council representatives will attend and that they will do their best to put into practical form the kindly feeling which the Mayor states animates the council generally, and to reassure the minds of a considerable number of the governors of the infirmary who begin to doubt the existence of this often expressed kindly feeling.

Feb. 12th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Scottish Association for the Medical Education of Women.

THE sixth annual meeting of this association was held in the Medical College, Minto House, Edinburgh. Sir Alexander Christison, M.D., president of the association, occupied the chair. The Secretary's report dwelt upon the increasing number of students attending the school and the necessity that had thus been laid upon the association to make more satisfactory arrangements for the conduct and accommodation of the classes, and they were pleased that they had been able to obtain accommodation in such a suitable building as Minto House. If, however, the school continued to increase as it has hitherto done it will become more and more necessary for the association to acquire premises of their own. The Chairman, in moving the adoption of the report, stated that they had been compelled to move from their

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former quarters, as at the beginning of the session there were sixty-four students, and the anatomical rooms in them were wholly insufficient. There was an adverse balance in the accounts of £67. Reference was also made to the success of the Students' Residence which had been opened in George-square in the beginning of the year. All the accommodation is already taken up, and the promoters are looking out for larger premises.

The Morison Lectures at the Royal College of Physicians of Edinburgh.

Dr. Alexander Bruce has been appointed to deliver the Morison Lectures this year at the Edinburgh Royal College of Physicians. He has taken for his subject the Nerve Tracts and Connexions of the Special Nerves in the Spinal Cord, Mid and Hind Brains. The first of the lectures was delivered on Friday of last week and the second this afternoon in the hall of the College. At the first lecture he dealt entirely with the distribution of the fibres of the posterior nerve roots, illustrating this by reference both to developmental, experimental, and pathological investigations. The second lecture was devoted partly to the consideration of the tracts affected in locomotor ataxia, and thereafter to the consideration of the origin, course, and destination of both the dorsal and the ventral cerebellar tracts and also of the pyramidal tracts. The lectures were illustrated by sections stained by Weigert's and Golgi's and Marchi's methods thrown upon a screen by means of lime-light. Transparencies were also used to further elucidate the lectures.

The Medico-Climatology of Edinburgh.

Mr. R. C. Mossman, a gentleman in Edinburgh who takes much interest in climatology, is publishing a monthly report in connexion with the weather and health of the city. The object of the report is to show the inter-relations existing between weather and public health. From the report for January it appears that the health of the city has been eminently satisfactory, comparing favourably with the corresponding period in 1895—a result due in no small degree to the continuance of abnormally mild and dry weather and the consequent decrease of deaths from diseases of the respiratory organs. Zymotic disease also shows a marked diminution, there having been only two deaths from measles, as against forty in the same period last year. Compared with the average of the preceding ten years, measles, scarlet fever, diphtheria, and whooping-cough all show a diminished mortality, while typhoid fever, croup, and laryngitis exhibit a normal fatality. Diarrhœa is above the average. The mean death-rate is 6·4 per 1000 below the average and the lowest for the same period during the last eighteen years.

The Destructor Nuisance in Edinburgh.

Some time ago it was noted in THE LANCET that an action had been raised against the corporation of Edinburgh on the ground that the destructor at Powderhall was conducted in such a manner as to create a nuisance. The case was decided in the Court of Session against the corporation, and the court remitted to Mr. R. Hall Blyth, C.E., to visit the premises from time to time, and, after conferring with Professor Odling of Oxford, to report what changes, if any, either in the apparatus itself or in the mode of working it, were necessary in order to prevent the escape of noxious dust and other matter. Mr. Blyth's report has been submitted, and contains a large number of recommendations for the improvement in the working of the destructor, but these are too technical to be given in detail here. The corporation has evidently been considerably startled by this report and has lodged objections to Mr. Blyth's recommendations. Both the report and the objections will be considered at an early date.

The Post of Medical Adviser to the Prisons Board for Scotland.

The candidates for this position are: Sir Thomas Grainger Stewart, Sir Henry D. Littlejohn, Professor T. R. Fraser, and Dr. Stockman.

Women as Medical Missionaries.

Miss K. K. Paton and Miss Mary C. Horner, licentiates in medicine and surgery of the three Scottish medical corporations, and formerly students at Queen Margaret College, Glasgow, have been accepted as medical missionaries by the United Presbyterian Church, and are about to proceed to Manchuria.

Lord Kelvin's Jubilee.

Lord Kelvin's jubilee as Professor of Natural Philosophy in the University of Glasgow, is to be celebrated this year. A committee, on which both "town and gown" are represented, has been appointed to make the necessary arrangements. It is proposed that his lordship shall be entertained at a banquet in the city chambers and that on the following evening there shall be a conversazione in the University.

Appointment of Medical Officer.

Mr. Forbes Kydd has been appointed medical officer for one of the divisions of the burgh of Port Glasgow, vice Dr. Grieve, deceased.

The New Photography.

The various scientific societies in Glasgow are attracting large audiences anxious to become acquainted with the application of Professor Roentgen's discovery. On the 5th inst. a joint communication was made to the Philosophical Society by Lord Blythswood and Dr. J. T. Bottomley, F.R.S., and various "photographs"—one of a frog showing the skeleton—were exhibited. Dr. MacIntyre also showed a number of lantern slides prepared from "photographs" obtained by a simplified form of Roentgen's apparatus. At the Pathological and Clinical Society on the 10th inst., Dr. J. Kerr Love exhibited a number of the new radiation pictures and the apparatus by which they were obtained.

Helensburgh Infirmary.

The annual meeting was held on the 4th inst. The report showed that seventy-three patients were admitted during the year, an increase of seven over 1894. General satisfaction was expressed with the arrangements and appointments of the new building. Votes of thanks were passed to the medical and surgical staff of the hospital.

Aberdeen Royal Lunatic Asylum.

During 1895 there were admitted to the asylum 93 male and 102 female patients—195 in all. There were discharged 118 patients. The recoveries included 23 males and 58 females, a percentage of 41·5 on admissions, which is an increase of 1·6 on 1894. In December last 738 patients were in residence, the largest number under treatment in any similar institution in Scotland except those of Edinburgh and Dumfries. The new hospital will not be ready for patients till spring. The income for the past year was £23,081 17*s.* 10*d.* and the expenditure £22,879 10*s.* 10*d.*

Aberdeen Royal Infirmary.

The number of patients treated last year was 2064, 1288 being surgical and 776 medical cases. The average daily number of patients was 155, and the cost per bed for ordinary outlay was £48 15*s.*, as against £50 10*s.* 3*d.* in 1894. The contributions received during the year amounted to £7864 and the expenditure to £7952. At Lockhead Convalescent Hospital 194 male and 88 female patients were received, nearly all direct from the infirmary.

Aberdeen City Hospital.

It is proposed to extend the old lodge in Park-road at a cost of £225, and to utilise it as a reception ward for doubtful cases.

Feb. 11th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Mater Misericordiæ Hospital, Dublin.

HER EXCELLENCY THE COUNTESS CADOGAN, accompanied by Lady S. Cadogan, paid a visit to this hospital on Friday last. The Viceregal party was received by the members of the medical staff and shown the wards and more especially the new operation theatre, which has just been rebuilt and fitted with all the modern arrangements in connexion with aseptic surgery.

The Royal Irish Academy.

A portrait of a very distinguished member of the medical profession—the late Sir Robert Kane, F.R.S., LL.D., &c.—was presented to the Royal Irish Academy at a largely attended meeting on the afternoon of the 10th inst. The President, Dr. Ingram, said that no man of his time had taken a more prominent part in scientific and educational work than his distinguished predecessor. Sir Robert Kane, who was a Fellow of the Royal College of Physicians of Ireland, filled the office of President of the Academy for five

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consecutive years. His eldest son, Judge Kane (brother to Captain Kane, formerly in command of the *Calliope*), was present, and expressed on behalf of the family his thanks for the manner in which the acceptance of the portrait had been proposed and seconded.

Dublin University Experimental Association.

At the meeting of the above society fixed for this (Tuesday) evening Professor Joly, F.R.S., will give a demonstration of the new Lenard or Roentgen rays. Professor Fitzgerald will take part in the discussion.

The Ulster Hospital for Women and Children.

The annual meeting of the subscribers to this hospital was held on Feb. 6th. From the report I find that 142 new cases were admitted to the children's ward during the year, while there were 2654 extern patients. In the women's department 77 new cases were admitted and there were 486 extern patients. There were 168 confinement cases and 170 children were born. There were no deaths in these cases.

Belfast Hospital for Consumptives.

At the annual meeting held on Feb. 5th I find by the report that there have been during the past year 814 new extern and 84 cases admitted into the wards. The hospital has been maintained free from debt mainly through the exertions of Mrs. Purdon, the widow of a former well-known medical man in Belfast. At the termination of the annual meeting a special meeting was held, at which a letter of great importance was read from a citizen of Belfast, Mr. Forster Green, stating that he had purchased the house and demesne known as Fortbreda, which is situated in one of the suburbs of Belfast, with the intention that they may (with such additions and changes as may be thought necessary) be used hereafter as a hospital and sanatorium specially devoted to those suffering from chest diseases. I understand that Mr. Green gave £7000 for the property, and he has contributed £4000 for investment to pay the ground rent. This munificent gift—to be called the "Forster Green Hospital for Consumption and Chest Diseases"—has (with the sanction of the Board of Trade in London) been made over to a corporate body, so that the difficulty of procuring trustees and the constantly recurring expense of transferring the properties to new ones when by death or other causes vacancies occur might be entirely avoided. At the special meeting held on Feb. 5th Mr. Green was most cordially thanked, and it was decided to approve of the proposal to amalgamate the "Belfast Hospital for Consumption" with the "Forster Green Hospital for Consumption and Chest Diseases," by which the latter will take over upon conditions to be agreed upon the real and personal property of the former hospital. A committee has been appointed to carry out this arrangement. This new hospital, which is situated in one of the most healthy districts of Belfast, on a dry, sandy soil, will be a great boon to many sufferers in that city.

Changes in the Royal University.

One of the Dublin medical schools has sent a petition to the Senate of the Royal University praying that the medical course shall not extend beyond five years from registration (at present, owing to the year spent in arts, it is really six years), on the ground that no other medical examining body requires more than a five years' curriculum, and that, owing to the present arrangement, there is a falling-off in numbers. They also pray that the proposed new arrangement, whereby students will be required to attend a course of systematic lectures in ophthalmology, shall not come into force.

Election of Direct Representative on the General Medical Council.

The preliminary poll between the three provincial candidates took place in Cork on Saturday last, and Professor Cuming of Belfast was selected by a substantial majority. There was a large poll, though several indicated that they would not take part in the preliminary contest owing to their not knowing sufficient of the comparative merits of the three provincial candidates, but they stated that they would gladly support whichever of the gentlemen was put forward as the champion of provincial interests at the official election. Professor Cuming is regarded as a very strong candidate, as, apart from his being now the deliberately chosen representative of the provinces, it is expected that all the practitioners who studied in Belfast College will give him energetic support. Here in the south his candidature will also be warmly advocated, and every effort be made to return him as a member of an assembly which many think ought in the near future to assume the functions of a medical parliament.

Supposed Suicide whilst suffering from Puerperal Fever.

One of the Cork city coroners opened a very important inquiry yesterday relative to the death of a young woman named Kate Kirby. The constabulary authorities stated that about a fortnight ago a soldier's wife was delivered by a midwife, and some time afterwards developed puerperal fever, from which she died. Last Sunday week Mrs. Kirby gave birth to a child and was attended by the same midwife. In this case also puerperal fever set in, and a couple of days ago the poor patient, still suffering from the disease, was found standing opposite a looking-glass with her throat cut and a razor in her hand. The coroner stated that the matters mentioned by the police should be inquired into, and he accordingly adjourned the inquest in order that all available evidence might be procured.

Abuse of Dispensary Visiting Tickets.

At the last meeting of the Kenmare board of guardians Dr. Robert Bohen complained that he had received a red ticket from one of the guardians, and on obeying the summons found the woman he was called on to attend was a farmer's wife. The Local Government Board inspector (Colonel Kirkwood), who happened to be present at the guardians' meeting, stated that the medical officer could proceed by legal process, if necessary, against the guardian who had issued the ticket. It is to be hoped a knowledge of that fact will cause some of our Poor-law guardians to think twice before indulging in what has been heretofore regarded by them as cheap philanthropy.

Vital Statistics and Centenarians.

The quarterly return of the Registrar-General for Ireland shows that during the quarter ended Dec. 31st, 1895 there were registed 24,535 births (12,651 boys and 11,884 girls), a number equal to an annual birth-rate of 21·5 in every 1000 of the estimated population. The deaths during the same period numbered 19,049, representing an annual rate of 16·7 per 1000. They included 9 from small-pox, 43 from measles, 204 from scarlet fever, 51 from typhus fever, 179 from whooping-cough, 84 from diphtheria, and 216 from enteric fever. Of the deaths from small-pox 8 occurred in the city of Dublin and 1 in or near Parsonstown. The 51 deaths from typhus fever were distributed as follows: 17 in Leinster, 15 in Munster (of which 5 were in Cork Union), 15 in Ulster, and 4 in Connaught. The deaths of the following very aged persons were registered:—At Kilmaganny, 1 of 104 years and 1 of 98 years; at Enniscorthy, a female of 96 years; at Blarney, a female of 102 years; at Carrignavar, a male of 100 years; at Skibbereen, 1 of 100 years; at Kilpatrick, a female of 99 years; at Cloghan, 1 of 96 years; at Limavady, 1 of 98 years; at Claudy (Londonderry), 1 of 113 years; and at Killaan (Ballinasloe), "of the 5 deaths registered 1 was that of a centenarian and probably a decade more, whilst another, though registered 90, was more probably within three years of the century."

The death is announced of Dr. Kane, dispensary medical officer of Anniscall, County Kerry, a much respected practitioner, from an acute attack of bronchitis.

Professor Byers of Belfast has been elected Président d'Honneur of the International Congress of Gynæcology and Obstetrics, to be held in Geneva in September, 1896.

Jan. 11th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Experimental Appendicitis.

IN order to throw some light on the pathogenesis of that dangerous and too common disease, appendicitis, Dr. Roger and Dr. Josué recently undertook some experimental researches bearing upon the question.[1] The appendix vermiformis of the rabbit was first ligatured after the introduction into its cavity of a few drops of a virulent culture of the bacterium coli commune. The animal died in a fortnight, the necropsy revealing the existence of suppurative appendicitis with peri-appendicitis. Further

[1] Société Médicale des Hôpitaux, Jan. 31st, 1896.

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experience showed that the injection of the culture was unnecessary, the mere aseptic ligature of the appendix sufficing to induce its inflammation. In a rabbit killed three months after such a ligature the part of the appendix isolated by the thread was seen to have been transformed into a cyst shut off from the rest of the intestinal canal and filled with thick pus containing in a pure state the bacterium coli. This microbe, then, harmless so long as the flow of the intestinal contents is not impeded, becomes virulent directly stasis is established; despite the absence of any vascular disturbance (the vessels were not included in the ligature) suppurative inflammation ensued, and the occlusion produced by the ligature persisted after the absorption of the catgut. The existence of this collection of pus, which may, as in this instance, remain harmless for months, constitutes nevertheless a real danger, for its rupture, which may arise from a trifling cause, would infallibly result in an attack of acute peritonitis, seeing that it was not circumscribed by false membrane and that it contained living germs. M. Rendu found recently in the course of a post-mortem examination of a phthisical subject the appendix converted into a closed cavity filled with pus. Professor Dieulafoy[2] finds in these experiments a confirmation of the conclusions he formulated in the course of thirteen lectures delivered at the Faculty in November and December, 1895. These conclusions are as follows. Appendicitis is always the result of the conversion of the appendicular canal into a closed cavity, the closure taking place at any point in its length. Partial obliteration with resulting transformation into a closed sac is due to the progressive formation of a calculus more or less hard in consistence in proportion to the admixture in greater or less quantity of lime and magnesium salts to organic and stercoral ingredients. This calculus does not originate in the cæcum, but is the product of a true appendicular lithiasis comparable with biliary and renal lithiases. The coexistence of these three lithiases in the same family and their hereditary origin has often been remarked. Another cause of the obliteration of the appendix is local infection quite analogous with a similar obliteration of the bile duct in catarrhal icterus. In certain cases a fibrous stricture similar to an urethral stricture results in the shutting-off of the appendix. The symptoms of mild or serious appendicitis reveal themselves only when the appendicular canal is converted into a closed sac, then the germs normally present in the appendix, inoffensive up to that time, multiply and become more virulent. Thus is constituted a highly dangerous focus of infection, the principal micro-organisms present being the coli bacillus and the streptococcus (a fact verified many times by Professor Dieulafoy and his *interne*, M. Kahn). The virulence of the appendicitis may of itself suffice to kill the patient while the peritoneal symptoms are quite subsidiary. In other instances the infection spreads to the peritoneum despite the absence of any perforation of the appendix; any variety of peritonitis may be developed (generalised, encysted, acute septicæmia, and peritoneal abscess *à distance*). Then, again, peritonitis may be set up by perforation. It would then appear that until the normal canal of the appendix is converted into a closed cavity the symptoms of appendicitis are not present, and until this event has taken place we have no means of discovering the existence of a process which will infallibly result, some day, in an attack of that formidable disease.

The Average Annual Mortality of Medical Men in France.

The *Semaine Médicale* calculates the mean annual mortality amongst the 17,500 votaries of the medical profession in this country at 2·6 per cent., this figure being in excess of that representing the mortality amongst Paris medical men (2·4 per cent.). The retirement into the country for divers reasons of a certain number of Paris practitioners would easily account for this slight disparity. The total number of deaths of medical men in France would thus be 450 per annum. To fill up this hiatus no fewer than 800 newly-fledged medical men graduate each year. But from these must be subtracted a certain number of foreigners (about 125) who leave France after graduation. Of the remaining 675, 450 fill up vacancies caused by death, about 125 succeed older practitioners who retire, and the remaining 100 go to increase the standing army of medical men. Ten years ago the total number of French practitioners practising in France was 16,800, as against 17,500 at the present time.

[2] Ibid., Feb. 8th, 1896.

Frequency of Suicides in France and Germany.

During the thirteen years included between 1881 and 1893 a total of 129,018 suicides occurred in Germany as against 105,337 in France. The appended table will supply details that may be found interesting:—

Years.	Suicides in Germany.	Suicides in France.
1881	8,987	6,741
1882	9,009	7,213
1883	10,269	7,267
1884	9,763	7,572
1885	10,084	7,902
1886	10,297	8,187
1887	10,001	8,202
1888	9,308	8,451
1889	9,565	8,180
1890	9,811	8,410
1891	10,474	8,884
1892	10,551	9,285
1893	10,699	9,043

I gather from the above statistics that whereas the population of France has during this same period of thirteen years increased by only one-twentieth suicides have increased one-third. Rarer than in Germany in 1881, self-destruction has become relatively more frequent in France. It is said that suicides are in Saxony and Hamburg three times more numerous than in Bavaria. Alsace-Lorraine has the best record of all.

Annual Meetings of French Medical Societies.

The fourth session of the Obstetrical Society of France will be held in Paris from the 9th to the 11th of April next. The following are the subjects for discussion:—(1) Artificial Dilatation of the Os Uteri at the end of Pregnancy or During Labour; and (2) Treatment of Post-Partum Hæmorrhage. The questions to be discussed at the 1896 session of the Société Française d'Otologie et de Laryngologie will be:—(1) Treatment of Diffuse Papillomata of the Larynx; (2) Treatment of Adenoid Growths; and (3) Treatment of Labyrinthine Vertigo. The session will be inaugurated on May 4th.

Dr. J. B. Murphy of Chicago has been elected a foreign corresponding member of the Paris Société de Chirurgie.

Feb. 11th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Further Discoveries in Photography.

WHILST the scientific world is still busy in developing Professor Roentgen's discovery we hear that two medical men, Dr. Selle and Dr. Neuhauss, have succeeded in improving the art of photography in another direction. They have, in fact, been able to obtain photographs of objects in their natural colours by using three specially prepared glass plates appropriate for blue, green, and red lights respectively. Photographs of a similar kind have already been taken by Mr. Joly of Dublin, but his procedure, notwithstanding its great scientific value, is said to be too difficult for application in ordinary photography, whereas the methods of the above-mentioned experimenters require no more than a few seconds. At a meeting of the Photographic Society they aroused much interest by exhibiting photographs of butterflies, roses, and various other flowers in their natural colours. Professor Koenig, the well-known Berlin surgeon, in photographing a sarcomatous femur by Roentgen's method, found that the parts where the osseous substance had been destroyed by the growth were much less opaque in the photograph than the normal bone, and he was in this way able to estimate the size of the tumour.

The Hygienic Conditions of Bakeries.

At the last meeting of the Public Health Association Dr. Jürgensen read a paper on the hygienic conditions of bakeries, pointing out that in nearly all continental countries the conditions of milk-supply and meat-supply had been made much more wholesome during recent years, but that bakehouses, except in Holland, were still very defective from a hygienic point of view. The public do not

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show much interest in this question, but would undoubtedly become alarmed if certain features of this trade became generally known. According to Dr. Jürgensen, the principal grounds of complaint are that in the larger towns the bakeries are underground, sometimes in the neighbourhood of places of convenience, and that the bakers take their meals in the workrooms. As overwork is quite common in this trade the health of a good many of the men is very bad, for the inhalation of dust and particles of flour favours the development of tuberculosis, and the considerable variations of temperature produce rheumatism. Numbers of the men also suffer from deformities of the lower extremities, and from want of necessary cleanliness diseases of the skin are very frequent among them. Dr. Jürgensen said that matters are much better in England, where some progress has been made mainly through the efforts of the medical profession. He suggested that underground bakeries should be abolished, that they should be situated on the ground level, and should not be in close connexion with dwelling-houses. The floor should be made of polished material so that it may be easily cleaned, all the corners of the rooms should be rounded, and the bakers should wear a working dress that can be washed. A model bakery should have a room in which articles of clothing may be deposited, and a lavatory with bathing accommodation. There should be separate rooms for shaping the dough, cooling and fermenting, and all the rooms should be ranged round a central office, from which all that goes on may be viewed. The bakers should be divided into two parties, working ten hours each, and four hours should be spent every day in cleaning. These reforms, Dr. Jürgensen said, could of course be introduced only in large factories, and they would be impossible as long as the baking trade continues to be in the hands of small employers. It is therefore desirable that the smaller bakeries should disappear and make way for a really hygienic system of bread-making. In the subsequent discussion Dr. Baer, medical officer of the Ploetzensee Prison, stated that many criminals had been bakers' apprentices and had run away from their masters on account of ill-treatment and overwork.

Feb. 11th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Professor Celli on Disease and Death in Italy.

AT the London meeting of the International Congress of Hygiene and Demography the Roman delegate, Professor Angelo Celli, profiting by his opportunities, made a study of the sanitary system of England and the provinces, and in a special report addressed to his compatriots did not hesitate to assure them they were centuries behind the British standard in all that safeguards the public health. In an inaugural discourse with which he opened the current scholastic year of the Roman University, where he holds the chair of hygiene, he resumed the subject and was constrained to tell his audience how far Italy still lags behind the rest of Europe in her means of preventing disease and premature death. Beginning with alimentation he dwelt on the low sustaining power of the food accessible to the Italian peasant. In the Venetian territory, the Emilia, and the Abruzzi the diet is maize, rarely quite sound, and therefore inducing pellagra. On the Tuscan hills the agricultural poor subsist mainly on chestnuts; and in various tracts of the Appenines they are reduced to acorns, like their pigs. At the sea ports in the great inland towns and also at the marble quarries alcoholism is a growing vice, necessitating the enlargement of hospitals and asylums and so impairing the nutrition of the very young that, in the Roman infant schools for example, 4 per cent. of the children are rachitic. Wretchedly low wages are the Italian labourers' portion—a franc a day in the fields and 2 francs a day in the towns are the conditions under which the struggle for existence is carried on! The low resisting-power thus obtainable is put to a severe test by the duration, the quality, and the scene of labour, as, for instance, in the rice-fields around Ravenna, where the workers, mostly females, are bowed nearly double, emaciated, with ashen-grey complexions, all to gain 6*d.* a day; and their children are anæmic, tympanitic, and undersized. Pellagra, another Nemesis of perverted nutrition, caused 3113 deaths in 1889 and 4300 in 1893 in the Lombardo-Venetian territory, while goitre and cretinism, endemic in the sub-Alpine valleys, numbered 140,000 typical specimens in 1883. Italy, according to Professor Celli, is the only European country where children under nine years are employed as factory hands and at ten years are plunged into sulphur mines and marble quarries. A recent return tells us that of 1,500,000 workers more than 150,000 were under fourteen years of age, unprotected by any law to regulate their labour, and the females were subjected to the severest strain at the critical period of their development, some on the point of parturition or just risen from child-birth. The dwellings of these unfortunates are on a par with their other conditions—"thousands and thousands," according to Professor Celli, "living huddled together in dens or caves like wild beasts or in wigwams of straw; and beyond the gates of Rome there are villages composed of huts, as in Abyssinia. Out of a thousand communes there is hardly a peasant's house with a chimney." I need not enlarge on the malarial scourge, which, like those of pellagra and goitre, have been fully described in THE LANCET, except to note Professor Celli's remark that along 1400 kilometres of railway 6416 employés, well fed and well lodged, under better conditions than other labourers, were from 1881 to 1890 attacked with the fever in the proportion of 87 per cent. Tuberculosis, he tells us, in the last thirty years has caused two million deaths, as against only 200,000 due to cholera in the same period. The hard lives, mainly the imperfect sustenance, of the Italian working classes are responsible (according to Professor Celli) for these startling results: 1. When called to serve in the army 21 per cent. of the conscripts had to be sent back for constitutional defects from 1863 to 1866, and 12 per cent. from 1890 to 1894. 2. Infantile mortality is higher in Italy than in any other European country. 3. The death-rate, as a whole, is also excessive, particularly among the poor. Their mean longevity is twenty-eight years; that of the well-to-do classes fifty-five! Professor Celli's home-truths are specially opportune when an adventurous and unsuccessful colonial policy is draining this country of its life-blood and its treasure. Half-a-million lire (£20,000) a-day is what Italy is now paying for her Abyssinian war, without counting the expenses of transport service and the heavy toll of the Suez Canal. And yet her sanitary record is what Professor Celli has just told us.

Typhoid Fever at Siena.

For some weeks Siena, one of the most frequented of Tuscany's artistic centres in the tourist season, and a favourite resort for convalescents, has been visited by typhoid fever. The symptoms are in some respects peculiar so as to make the cause of the outbreak a subject of even more than professional interest. At the instance of the Government the Commendatore Dr. Pagliani head of the Public Health Department, has repaired to the spot and is now engaged with the local sanitary authorities in making the required investigations.

Feb. 11th.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

An Important Case.

A CASE in which Mr. Bangor Brooks of Mauriceville claimed £200 from Mr. S. F. Beard of Masterton was commenced before District Judge Kettle on Dec. 11th, 1895. The statement of claim was as follows. On July 13th, 1895, the defendant in his professional capacity attended Louisa Brooks, wife of the plaintiff, she then having just given birth to a child. The defendant is alleged to have negligently and unskilfully treated his said patient, particularly in allowing membranes to remain in the womb without any proper antiseptic precautions, and in not taking any steps to cure or alleviate the consequences that set up (to wit, puerperal septicæmia) on his becoming aware thereof, and generally to have neglected and failed to use proper skill and attention in his treatment of the said patient. That the defendant, if not aware of the puerperal septicæmia which set up as aforesaid, was apprised thereof three days after the birth by one Mrs. Lehmstedt, and was negligent and unskilful in not becoming so aware on being so apprised, or in failing to make no inquiry as to such symptoms or to attend the patient thereon. On July 30th the said Louisa Brooks died

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of puerperal septicæmia. The child of the said Louisa Brooks has since died and she had no other children. The defendant in his statement denied certain of the allegations contained in the plaintiff's statement. Mr. Beard affirmed that he was called in to attend Louisa Brooks on July 13th; she had then already been confined, and the defendant had not previously been notified or requested to attend upon her. Her place of abode was fourteen miles and a half from Masterton, where defendant resides. The defendant proceeded at once on July 13th to Mauriceville, and attended professionally upon the patient, so that this was the only occasion on which he was employed to attend. On July 17th Mr. Beard was waited upon by Mrs. Lehmstedt, who gave him certain information as to the condition of Mrs. Brooks, but did not, as alleged, apprise him of any of the symptoms which might point to puerperal fever. Mr. Beard stated further that he advised Mrs. Lehmstedt as to the treatment to be adopted and instructed her that he would, if requested, again visit the patient. Mr. Beard was not at any time again requested to attend the patient. It seems from the evidence that the late Mrs. Brooks was attended by an unqualified midwife "who did what she could for her friend and neighbour." She sent for Mr. Beard because the after-birth would not come away. Mr. Beard after his arrival took the placenta away and gave the midwife the ordinary instructions as to the after-treatment, and requested her further to let him know how the case was progressing. This latter request was carried out through Mrs. Lehmstedt, who, as already stated, brought Mr. Beard information which did not tend to convey to his mind that anything of a serious nature had occurred to his patient. On Mrs. Lehmstedt's return to Mauriceville (on July 19th) Mr. Brooks sent for Dr. Douglas (on the recommendation of a Mrs. Brenchley, a qualified nurse who was also called in). Dr. Douglas was not made aware of the fact that the patient had already been attended to by Mr. Beard and immediately proceeded by train to Mauriceville. Dr. Douglas found the patient in a high state of fever, and from the symptoms generally diagnosed puerperal fever. He expressed surprise that a medical man had not been called in earlier, and then for the first time was made acquainted with the fact that Mr. Beard had been attending earlier in the week. Dr. Douglas then washed out the uterus with an antiseptic lotion and prescribed some medicine. Mr. Brooks then told Dr. Douglas that he had informed Mr. Beard that he did not want him any more, and requested that he (Dr. Douglas) should treat the case. Dr. Douglas accordingly went up the following day and found the patient much worse. On the next day's visit Dr. Douglas was informed on his way to the house that the woman was dead. The above is a brief history of this sad case, only one of the many occurring in this colony, where women about to be confined engage for various reasons incompetent midwives to look after them. In this case of Brooks *v.* Beard a perfect avalanche of medical testimony swept away all allegations of neglect, unskilful treatment, and error. The unanimous verdict of the jury, endorsed fully by Judge Kettle and loaded with full costs against the plaintiff, is a fit termination to a case which ought never to have been brought. The medical profession sympathise strongly with Mr. Beard and regret that he should have had to answer such a charge. It is not necessary to comment on Mr. Brooks's conduct in this case, because the evidence and the verdict sufficiently stigmatise it. It must be a matter of the greatest possible satisfaction, however, to Mr. Beard to know that his professional brothers—many of them residing at considerable distances from Masterton—rallied round their friend and assisted by their evidence to pave the way for a just verdict to be arrived at. Such a case as this under notice—where one has to take up the running after a midwife finds herself in difficulties—is always approached by members of the medical profession with fear and trembling, and Mr. Beard is to be commended for the stand he took and the battle he won.

Intercolonial Medical Congress at Dunedin.

His Excellency the Governor, Lord Glasgow, has signified his intention of being present to open the Congress. Dr. Batchelor and Dr. Lindo Fergusson of Dunedin have assisted the executive committee very considerably by making a tour through the colonies arousing interest in the forthcoming proceedings, and a good attendance in consequence is fully expected. Those of our Australian brethren who do not mind roughing it mildly for a few days will (through the kindness of the Premier, the Hon. R. Seddon, who has arranged for tents, provisions, &c., to be provided *en route*) have an opportunity of witnessing a scene of surpassing loveliness in the course of the trip from Milford Sound to Te Anu. The subject for general discussion will be Tuberculosis in Man and Animals, but it is to be limited to its etiology and treatment, with especial reference to prophylaxis. The Congress will commence on Feb. 3rd, 1896, at Dunedin.

Dec. 23rd, 1895.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on the 13th inst., the President, Mr. Christopher Heath, being in the chair.

The committee appointed to consider the question of the desirability of the Members of the College participating in the election of the Council presented their report, and, the Council having considered it, it was resolved—

"That, before the Fellows are addressed upon the subject, the Council do take into consideration at an early meeting the question whether Members should or should not be directly represented on the Council."

We hope to print a fuller report of this meeting in THE LANCET of next week.

Medical News.

UNIVERSITY OF LONDON.—The following candidates passed the Preliminary Scientific (M.B.) Examination, January, 1896:—

ENTIRE EXAMINATION.

FIRST DIVISION.

Armstrong, Percy, private study.
Bowden, Robert Culverwell, St. Bartholomew's Hospital.
Coplans, Myer, Simon Langton Schools, Canterbury.
Lowman, William Henville, King's College.
Waite, Henry, B.A., Goldsmiths' Institute and private study.

SECOND DIVISION.

Bain, Edward Walter, London Hospital.
Bryan, Alfred Francis, B.A., private study.
Charles, Fred, B.A., University Tutorial College.
Dawson, Frederick Walter Whitney, University College, Auckland, Westminster Hospital, and University Tutorial College.
De Zilwa, Lucian Arnold E., University College.
Fernie, Charles George, B.A., University Extension College reading and private study.
Hallilay, Herbert, Westminster Hospital.
Ham, Charles Edward, Wilson's Grammar School, Camberwell.
Hamilton, Archibald Douglas, University College, Liverpool, and private study.
Heald, Thomas Dann, Brighton Grammar School.
Howell, Francis Musgrave, St. Bartholomew's Hospital.
Knowles, Percy, private study and University Tutorial College.
Krumbholz, Chas. James Izzard, Alwyne Institute.
Kunhardt, John Conrad Gie., St. Mary's Hospital.
Love, George Underwood, B.A., private study.
Matthews, Alec Leslie, London Hospital.
Meaden, Alban Anderson, St. Bartholomew's Hospital.
Osborne, Herbert, B.A., private study and University Tutorial College.
Pritchard, Harold, University College, Liverpool, and private study.
Shaer, Isidore, B.A., Jews' Free School.

FOREIGN UNIVERSITY INTELLIGENCE. — *Innsbrück:* Dr. Hochstetter of Vienna has been appointed to the Chair of Anatomy, succeeding Dr. Roux.—*Leipsic:* Dr. Rehl of Vienna has been appointed Extraordinary Professor of Syphiligraphy and Dermatology.—*Munich:* Dr. O. von Sicherer has been recognised as *privat-docent* in Ophthalmology.—*Philadelphia (Jefferson Medical College):* Dr. Geo. Dock, of the Ann Arbor University, Michigan, has been appointed Professor of Pathology and Bacteriology.—*Turin:* Dr. C. Lombroso has been appointed Professor of Clinical Psychiatrics.—*Michigan (Ann Arbor University);* Dr. E. M. Mosher of Brooklyn has been appointed Professor of Hygiene.—*Montpellier:* Dr. Estor has been appointed Professor of Operative Medicine.

MEDICAL MAGISTRATES.—The Lord Chancellor has added the names of the following medical men to the Commission of the Peace for the County Borough of Newport:—A. Garrod Thomas, M.D. Edin., M.R.C.S. Eng., and O. E. Bulwer Marsh, M.R.C.S. Eng., L.R.C.P. Edin.

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WITHDRAWAL OF PERMISSION TO PRACTISE.—The Belgian Government have shown themselves capable of exercising discipline in the case of foreigners who have been granted permission to practise. A certain Hungarian medical man who had a diploma from Vienna, and who has been authorised to practise in Belgium since 1882, has now been deprived of that privilege by a Royal decree.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent medical men are announced:—Dr. John Ford Barbour, formerly Professor of Clinical Medicine at the Louisville Hospital Medical College.—Dr. A. Rózsahegyi, Professor of Hygiene in the University of Clausenburg.—Dr. Boislinière, Emeritus Professor of Midwifery in the St. Louis Medical College.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—The next general meeting of this association will be held at the University Arms, Regent-street, Cambridge, on Thursday, Feb. 20th, Dr. Nicolson, President, in the chair. Dr. Rivers will communicate laboratory observations on Mental Fatigue and Recovery; Dr. Hyslop will read a paper on Pseudo-general Paralysis of the Insane; and Dr. Fletcher Beach will read notes of a case of Tumour of the Brain. It is announced that the examination for the certificate of the association and for the Gaskell Prize will take place at Bethlem Hospital in July. Candidates for the Bronze Medal and Prize of 20 guineas must send in their essays to the President before May 30th, 1896. Particulars of the examinations for the certificate and Gaskell Prize and of the essay can be obtained of the Registrar, Dr. Spence, Burntwood Asylum, Lichfield. The members will dine together after the meeting at the University Arms at 7 P.M. Tickets, 7*s.* 6*d.* each, exclusive of wine. Evening dress will be optional.

THE VICTORIA UNIVERSITY.—The following have recently been appointed External Examiners at the Victoria University: A. E. Barker, F.R.C.S., Professor of Surgery in University College, London, Examiner in Surgery; J. Reynolds Green, D.Sc., F.R.S., Professor of Botany to the Pharmaceutical Society of Great Britain, Examiner in Botany; Nestor J. C. Tirard, M.D., F.R.C.P., Professor of Materia Medica and Therapeutics in King's College, London, Examiner in Materia Medica and Pharmacy, and in Pharmacology and Therapeutics. The following external examiners have been re-elected: Thomas Barlow, M.D., F.R.C.P., Examiner in Medicine; C. J. Cullingworth, M.D., F.R.C.P., Examiner in Obstetrics and Disease of Women; A. C. Haddon, M.A., Examiner in Zoology; A. P. Luff, M.D., B.Sc., Examiner in Forensic Medicine; Alexander Macalister, M.D., D.Sc., F.R.S., Examiner in Anatomy; J. Lane Notter, M.A., M.D., Examiner in Public Health; E. A. Schäfer, F.R.S., Examiner in Physiology; G. Sims Woodhead, M.D., F.R.C.P. Edin., Examiner in Pathology; and Sidney Young, D.Sc., F.R.S., Examiner in Chemistry.

THE NEW ASYLUM FOR WEST SUSSEX.—The administrative county of West Sussex have at the present time 337 patients in "foreign" asylums, the greater number (225) being at Salisbury and others as far north as Warwick. These have been accommodated with much difficulty pending the building of the new asylum for the county at Grayling Wells, near Chichester. Of the six large blocks for patients four are now roofed in and the other two are rapidly rising. The wards are crescent-shaped, the female and male being on opposite sides of the medical officers' department in the centre. At the rear are the administrative buildings, as yet not built above the foundations, but in the hands of the workmen. The hall will seat some 800 persons. The workshops and laundry have not yet been commenced; the water tower, the boiler-room, and the medical officer's residence are just being started. An extensive system of corridors connects the whole of the buildings, the different blocks, the residence of the medical men, and the offices. Beneath each corridor runs a subterranean passage, which takes the pipes of the low-pressure steam-heating system, and which will be used for ventilation in summer. This arrangement will allow of the warming and ventilation being regulated without any contact by the officers with the patients, the system being worked from below. The electric light will be used, and three steam boilers are being fixed to control the heating, pumping, and lighting power. It is thought that the work will be completed in about fifteen months.

DR. LOMBE ATTHILL, some time Master of the Rotunda Hospital, Dublin, has been elected an Honorary Fellow of the British Gynæcological Society.

LORD CHARLES BRUCE will preside at the festival dinner of the Royal Hospital for Diseases of the Chest, City-road, E.C., at the Hôtel Métropole, on Tuesday, May 26th.

THE Princess of Wales, the Marchioness of Lorne, the Duchess of Teck, the Marchioness of Salisbury, the Duchess of Devonshire, Mrs. Leopold de Rothschild, and the Lady Mayoress have become patronesses of a bazaar and fête to be held in May or June next in aid of the funds of the West London Hospital.

FOOTBALL CASUALTY.—A well-known Welsh player, who was injured in the International match at Blackheath and had not played since until he appeared against Newport, was injured again on Saturday last at Aberavon, and although he continued to play it is feared he sustained serious internal injuries.

CONJOINT EXAMINATIONS IN IRELAND BY THE ROYAL COLLEGE OF PHYSICIANS AND THE ROYAL COLLEGE OF SURGEONS.—The following gentlemen have passed the examination for the Diploma in State Medicine: Ernest G. Annis, M.R.C.S. Eng., L.R.C.P. Lond.; Charles R. Chichester, L.R.C.P. and S. Irel.; George W. Dawson, L.R.C.P. and S. Irel.; Wm. J. Greer, F.R.C.S. Irel., L.R.C.P. Irel.; and J. G. Goodlake Murray, L.R.C.P. and S. Edin.

THE DIFFUSION OF SMALL-POX.—Small-pox in London has now for some time been stationary. In the several four-weekly periods which have passed since the outburst in July, August, and September of last year, the numbers of notified cases have been respectively 42, 36, 33, and 41. The last four weeks alluded to ended with Jan. 25th of this year, and the cases occurred in eighteen of the forty-four sanitary districts of London, including the port. In only four instances did the notifications exceed 2—namely, Kensington and Greenwich 4 each, Lambeth 5, and Poplar 6. There had been no death registered in the metropolis since the second week of this year. Last week the admissions to hospital were only 6, as compared with 17, 14, and 12 in the preceding three weeks, and 64 patients remained on the ships at Long Reach last Saturday, as against 74 on the Saturday previous. But if small-pox has been thus quiescent in London it has been otherwise in the provinces. At Oxford, for example, several cases have been traced to a tramp from the sister university town of Cambridge, and revaccination has been urged on the students of the university in consequence of the occurrences. The infectious hospital did good service in the emergency. In Lancashire further cases have lately been heard of in Oldham, and at Royton recrudescence of the disease has made calls upon the hospital at Cinder Hill. In Heywood, in January, some cases were notified. Here there is no isolation hospital. At Shields at the end of January the ss. *Glen Tamar*, from the Grecian Archipelago, reported cases of small-pox on board. The River Tyne port authority at once had the patients removed to the floating hospital and the vessel thoroughly disinfected. An additional case of small-pox at Saddleworth last month was removed to hospital at Running Hill. At Stroud, as we have already mentioned, the attempted removal of a case to a hastily improvised hospital at Oakridge, met with strenuous opposition from the residents near at hand, and the hospital was burned to the ground by a riotous mob. The patient unfortunately died. The notification of one or two cases of small-pox at Cheltenham has led the medical men to meet and pass resolutions strongly in favour of vaccination and of the enforcement of the Vaccination Laws as did the medical men of Gloucester shortly before. In Gloucester there had occurred up to the end of January as many as 69 cases, exclusive of a few from the rural area around. Of the 69 city cases, 31 were of unvaccinated children, and 9 deaths occurred, while 37 others had been vaccinated in infancy only, and many of them imperfectly. One person removed to hospital and found to be suffering from chicken-pox contracted the graver malady in the institution, the patient being an unvaccinated child. One of the rural cases, also that of an unvaccinated child, proved fatal. At Bristol one or two cases, occurring in January have been dealt with, and it is stated that the plans for a permanent hospital

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are now in a forward stage for final submission to the Local Government Board. A serious matter has come to the cognisance of the Exeter corporation—namely, that a young man has been discharged from the Yeovil Hospital while still suffering from small-pox, or at any rate while in an infectious stage of convalescence. He appears to have had a certificate of fitness to travel given to him before the railway authorities would allow him to return to Exeter, which he did in a compartment by himself. On his arrival at his mother's home a medical man certified to his infectious condition and he was removed to hospital. The action of the Yeovil authorities is one that demands inquiry at the hands of the Local Government Board. In South Wales, and especially in Glamorganshire, the experience of the present year has been gloomy. At Aberavon, Pontypridd, and Dowlais cases of tramp-spread small-pox have been reported. At Cardiff upwards of a dozen cases developed in the workhouse, and on the 31st ult. the number of patients suffering from the disease in the town hospital was 17, and 2 deaths had taken place during the month. The School Board have refused to grant permission to the vaccination authority to examine children for the purpose of securing protection against small-pox by means of vaccination. Two fresh cases have been reported in Bridgend, and a hospital of some sort is to be erected, but disputes as to site and cost seem to have delayed the matter. At Abercarn a cottage in an isolated position has been acquired for the housing of a case of small-pox and the members of the patient's family. At Swansea 5 cases remained under treatment at the close of January, 2 fresh cases coming from Morriston in the concluding week. An order has been issued for the revaccination of every member of the Glamorganshire police force. In the last week of January no admission, discharge, or death was recorded in Dublin so far as small-pox was concerned, 5 patients only remaining in hospital. The ss. *North Cambria* has reached Limerick with small-pox on board, 8 of her crew having had to be sent to the workhouse hospital suffering from the disease. She hails from Baltimore.

PROPOSED ASYLUM EXTENSION.—At a meeting of the Belfast Corporation held on Feb. 8th a report on the proposal to provide additional asylum accommodation was presented by the representatives of the corporation on the board of governors of the Belfast Lunatic Asylum. In it they say there are now in the Belfast Asylum and the annexe at Ballymena 443 patients chargeable to Belfast, and there is accommodation in the asylum for 400 patients (males) and at Purdysburn for 80 patients (males), which would be more than sufficient for all the Belfast patients if the county Antrim ones were removed; but as the board of control wish to have a number transferred from the union workhouse to the asylum, and the number of lunatics is increasing annually, the representatives of the corporation think that additional accommodation, comprising administrative and two chronic blocks, should now be provided at Purdysburn for 300 chronic patients as part of a complete asylum. Such buildings can be erected at a cost of from £50,000 to £60,000, and they recommend this should be done. The council unanimously adopted this report. At the monthly meeting of the Belfast Asylum, held on Feb. 10th, it was stated that, owing to overcrowding, it had been found necessary to place bedsteads in the corridors through the female division as the dormitories will not accommodate the admissions. There is now in the Belfast Asylum an excess over the normal accommodation of 199 males and 108 females. It was stated by one of the guardians recently that there are 433 lunatics in the Belfast workhouse whom the ratepayers have to support at their own cost.

DIPHTHERIA IN LONDON.—Diphtheria in London is diminishing in number of cases. In the concluding four weeks of last year the notified cases numbered 1136, and averaged 284 weekly, whereas in the first four weeks of the present year the notified attacks fell to 988 and the weekly average to 247. In the concluding four weeks of last year the districts contributing 50 cases and upwards were seven, with an aggregate of 532 cases, and thirty-nine of the forty-three sanitary areas were invaded; whilst in the first four weeks of this year the districts contributing 50 cases and upwards were only 6, with an aggregate of 358 cases. This year, however, all the forty-three sanitary districts were invaded, though some had only single attacks to chronicle. In the matter of fatality the closing four weeks of 1895 showed a total of 265 registered deaths, or 66 weekly, as compared with 224 deaths in the first four weeks of 1896, or 56 weekly. On the data so far given the disease would seem to be declining whether death or attack be considered. The weeks ended respectively Feb. 1st and 8th, however, somewhat modify this conclusion, since the registered deaths in these weeks have been severally 61 and 63—a nearer approach to the old state of things. Last week the 63 deaths were 29 in excess of the corrected average for the sixth week of the decennial period 1886-95, and the number is a higher one than occurred in any week since that ending Jan. 4th. Of these deaths all save 3 were in persons under twenty years of age, and the sanitary areas chiefly concerned were Islington and Greenwich (each credited with 6 deaths), Chelsea and Battersea (each with 5), and Fulham (with 4). The admissions in the week to hospitals of the Metropolitan Asylums Board numbered 94, as compared with 99, 122, and 102 in earlier weeks. The patients remaining under treatment on Saturday last were 706, and showed an increase from 687 on the preceding Saturday. In the Outer Ring there were 12 deaths, half of which took place in West Ham.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Opening of the Session.

THE second session of the new Parliament was opened by Royal Commission on Tuesday, the 11th inst., when, as usual, a Speech from her Majesty the Queen was read. Among the measures of legislation promised in the Speech were a Bill amending the law with reference to compensation to workmen for injuries received in the course of their employment, a Bill to amend and consolidate the law relating to public health in Scotland, a Bill to check the importation of destitute aliens, and a Bill for amending the law with respect to the supply of water to the metropolis.

The Ventilation of the House of Commons.

During the recess a number of alterations were made in the arrangements for the ventilation of the House of Commons, and it is hoped that members will no longer have cause to complain of evil smells, as they had towards the latter part of last session.

Legislation for the Mining Industry.

Sir Matthew White Ridley, Secretary of State for Home Affairs, received an important deputation from the National Conference of Miners with reference to an Eight Hours Bill for miners and various other matters connected with the mining industry. In the course of his reply to the deputation he said that the Home Office authorities quite recognised the great dangers affecting the industry, especially in connexion with fiery mines and coal-dust, and he entertained strong hope of being able to introduce legislation dealing with them at an early period. He was sure, he said, that all concerned would do their best to secure that every precaution was taken that engineering ingenuity could suggest to remove the danger from mines which were specially fiery and dangerous. Although he had not taken counsel with his colleagues on the subject of an Eight Hours Bill for Miners, he conceived that in all probability the Government would not be prepared to take charge of such a measure, but at the same time he did not think that they as a Government would oppose it. In all probability the matter would be left to the House itself to decide.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADAM, JOHN, M.B., C.M. Glasg., has been appointed Honorary Medical Officer to the Forres Leanchoil Hospital, Morayshire.

AITKEN, J. S., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Shap Sanitary District and the Workhouse of the West Ward Union.

ATKIN, CHAS., L.R.C.P. Lond., F.R.C.S., has been appointed Senior Surgeon, Sheffield General Infirmary, vice A. Jackson.

ALLFREY, C. H., M.D. Edin., M.R.C.P. Lond., F.R.C.S., D.P.H. Camb., has been appointed Assistant Physician to the Hastings and East Sussex Hospital.

BOUCHER, A. H., M.D., C.M. Edin. D.P.H. Camb., has been appointed Assistant Honorary Medical Officer to the Hertford General Infirmary.

COLMAN, W. S., M.D. Lond., M.R.C.P., has been appointed Assistant Physician to the National Hospital for the Paralysed and Epileptic, Queen-square, W.C., vice J. R. Bradford, resigned.

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EDEN, R. A. S., M.B., C.M. Aberd., D.P.H., has been appointed Medical Officer for the Norton Canes Sanitary District of the Cannock Union.

EDMOND, G. M., M.D., C.M. Aberd, has been appointed Second Assistant Physician to the Royal Infirmary, Aberdeen.

ELSWORTH, R. C., M.B., C.M. Edin., M.R.C.S., has been appointed Visiting Surgeon to the Swansea Hospital.

FOTHERGILL, W. E., B.Sc., M.B., C.M. Edin., has been appointed Honorary Medical Officer for the out-district of Moss-Side, Chorlton-upon-Medlock Dispensary.

FYFE, T. H., M.B., C.M. Aberd., has been appointed Honorary Medical Officer to the Forres Leanchoil Hospital, Morayshire.

GARSTANG, F. W., M.R.C.S., has been appointed Medical Officer of Health by the Northwich Urban District Council.

HAIGH, T. A., M.R.C.S., has been reappointed Medical Officer by the Meltham Urban District Council.

HAINES, EDWARD, L.R.C.P. Lond., M.R.C.S., has been appointed Junior Medical Officer for the Infirmary of the Wandsworth and Clapham Union.

HAY GEO. P., M.D., C.M. Aberd., has been appointed Honorary Medical Officer to the Forres Leanchoil Hospital, Morayshire.

JENNINGS, W. M., M.B., B.Ch. Dub., has been appointed Medical Officer of Health for the Dore Rural Sanitary District, vice Benson, resigned.

JONES, RICHARD, M.D., C.M. Edin., D.P.H. Camb., has been appointed Medical Officer of Health for the Urban District of Festiniog, vice Hugh Rees, resigned.

KENDALL, HERBERT W., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Surgeon to the Bristol Hospital for Sick Children and Women

KENDALL, B. C., L.R.C.P. Lond., L.M., M.R.C.S., has been reappointed Medical Officer to the Helston Public Dispensary.

MACKINTOSH, ANGUS, M.D. Glas., L.F.P. & S. Glas., has been re-appointed Medical Officer of Health by the Clay Cross Urban District Council, Derbyshire.

MARTINE, W. R., M.B. Edin, C.M., has been appointed Physician to the Western District Combination Fever Hospital, Haddington, and District Medical Officer of Health for the parishes of Athelstaneford, Morham, and Jester

MASON, D. J., M.D., C.M., L.R.C.P., L.R.C.S. Edin., has been appointed Certifying Surgeon for the Maidenhead District, under the Factory Act, vice Playne, resigned.

MILLIGAN, G. C., M.B., C.M. Aberd., has been appointed Honorary Medical Officer to the Forres Leanchoil Hospital, Morayshire.

MORRIS, C. D., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health by the Sunbury District Council.

MURRAY, W., M.D., C.M. Edin., has been appointed Medical Officer by the Warnley Union and Rural Council.

NITCH-SMITH, REGINALD, L.R.C.P. Lond., M.R.C.S., has been appointed House Physician to Westminster Hospital, S.W., vice Lowne, resigned.

ODELL, R., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Honorary Medical Officer to the Hertford General Infirmary.

OLIVER, G. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Clayton Urban Sanitary District, vice A. E. Turnstall.

PECK, E. G., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Queensbury Sanitary District of the Halifax Union.

RACKHAM, A. R., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer for the Workhouse of the Mitford and Launditch Union.

SCANTLEBURY, GEO. F., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Public Vaccinator for Cheltenham, Victoria, Australia, vice Moore, resigned.

STABLEFORD, F. R. G., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer at the Workhouse of the Aston Union.

STEVENSON, A. K., M.D., B.S. Irel., has been appointed Medical Officer of the Doagh Dispensary, vice Angston, deceased.

TUNSTALL, J. O., M.D. Lond., M.R.C.S., has been reappointed Honorary Medical Officer to the Home of Rest, Sutton Coldfield.

WARD, FRANCIS, M.B., C.M. Edin., has been appointed Senior House Surgeon to the East Suffolk and Ipswich Hospital.

WEARNE, WALTER, M.R.C.S., has been reappointed Medical Officer to the Helston Public Dispensary.

WILSON, S., L.R.C.P., L.M. Edin., has been appointed Medical Officer for the Enniskillen Workhouse Infirmary.

WOOD, M. A., L.R.C.P. Lond., F.R.C.S., has been appointed Medical Officer of Health for the Ledbury Urban Sanitary District, vice H. O. Sandford.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, London, S.W.—House Surgeon. Board, lodging, fuel, and light provided.

BIRMINGHAM PROVIDENT DISPENSARY (SANDS-COX TRUST), Hockley Branch—Medical Officer. Minimum salary £250 per annum, with residence and gas.—Applications to the Secretary, 20, Weston-road, Handsworth, Birmingham.

BRISTOL GENERAL HOSPITAL.—Surgeon.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury. — Resident Surgeon and Apothecary, unmarried. Salary £80 for the first year with an advance of £10 per annum up to £100, with board, lodging, washing, coals, and candles in furnished apartments.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House Surgeon, for one year. Salary £40 per annum, with board, lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Physician. Board, lodging, &c., provided.

EAST SUFFOLK AND IPSWICH HOSPITAL, Thoro'fare, Ipswich.—Second House Surgeon, unmarried, for one year. Salary £70 per annum, with board, lodging, and washing.

GREAT NORTHERN CENTRAL HOSPITAL, Holloway, N. — Obstetric Physician to Out-patients. Also House Physician. Salary £60 per annum, with board, lodging, and laundry in the hospital.

GRIMSBY AND DISTRICT HOSPITAL, Grimsby. — Locum Tenens for House Surgeon.

HAVERSTOCK-HILL AND MALDEN-ROAD PROVIDENT DISPENSARY.—Medical Officer.

LINCOLN COUNTY HOSPITAL, Lincoln.—Assistant House Surgeon, for six months. Honorarium of £10, and board, residence, and washing.

LIVERPOOL ROYAL INFIRMARY.—Assistant Honorary Physician.

LONDON HOSPITAL, Whitechapel, E.—Two Surgeon Dentists.

MANCHESTER ROYAL INFIRMARY (BARNES CONVALESCENT HOSPITAL, Cheadle).—Clinical Assistant at the Barnes Convalescent Hospital, Cheadle, for six months. Board and lodging provided.

NEW HOSPITAL FOR WOMEN, 144, Euston-road, London.—Clinical Assistant for the Out-patient Department for one year.

PARISH COUNCIL OF KINCARDINE, Ross-shire.—Medical Officer (resident). Salary £42 10s. as Medical Officer, and £5 per annum as Vaccinator. Applications to Chairman of the Council, Ardgay, N.B.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, Strand.—Surgeon.

SALFORD ROYAL HOSPITAL. — House Surgeon. Salary £100 per annum, with board and residence.

SHEFFIELD GENERAL INFIRMARY.—Junior Assistant House Surgeon, for three years. Salary, £50 per annum, with board, lodging, and washing.

SHEFFIELD ROYAL HOSPITAL.—House Surgeon for two years, unmarried. Salary £100 guineas per annum, with board (exclusive of wine and beer) and lodging.

SHEFFIELD UNION.—Resident Assistant Medical Officer (single or widower) for the Workhouse, Fir Vale, Pittsmoor. Salary £100 per annum, with apartments, rations, and the other usual allowances. Applications to the Clerk to the Guardians, Union Offices, Sheffield.

THE HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W —Clinical Assistants.

UNIVERSITY COLLEGE, London.—Professor of Pathology.

VICTORIA HOSPITAL, Folkestone.—House Surgeon. Salary £80 a year, rising £10 annually, with board, residence, and washing.

VICTORIA UNIVERSITY, THE YORKSHIRE COLLEGE, Leeds.—Demonstrator of Physiology. Salary £150.

WESTERN GENERAL DISPENSARY, Marylebone-road, London. — Two House Surgeons, unmarried. Salary £70, or £50 with board and residence.

Births, Marriages, and Deaths.

BIRTHS.

BENNETT.—On Feb. 6th, at London-road, Leicester, the wife of F. W. Bennett, M.D., of a daughter.

DEACON.—On Feb. 11th, at Warlingham House, West Croydon, the wife of J. G. Deacon, M.D. Irel., of a daughter.

LLEWELLYN.—On Feb. 5th, at Earlsfield-road, Wandsworth, the wife of John Llewellyn, M.R.C.S. Eng., of a daughter.

MORRISON.—On Feb. 4th, at Gervase House, Duffield, Derby, the wife of Robert Morrison, L.R.C.S., &c., of a son.

RICHARDSON.—On Feb. 3rd, at Audrey House, Gosport, Hants, the wife of Martin Richardson, M.B., C.M. Edin., of a daughter.

WILLIAMS.—On Feb. 8th, at Fairfield, Pontypridd, Glam., the wife of T. R. Hamlen Williams, M.R.C.S., L.R.C.P., of a daughter.

MARRIAGES.

HOSKINS—PASCHAL.—On Feb. 12th, at St. Nicholas Parish Church, Chiswick, William Hoskins, M.B. Aberd., of Lansdowne House, Broxbourne, to Georgina Augusta, only daughter of the late Col. Paschal, 70th Regt., of Morton House, Chiswick.

HOWARD—CUNNINGHAM.—On Feb. 8th, at St. Saviour's, Aberdeen-park, John Alexander Howard, M.D. Lond., only son of John Howard of Ashby-road, Canonbury, to Emily Gertrude, eldest daughter of the late Chas. Cunninghaim, of Balfour-road, Highbury New-park.

IONIDES—CAVAFY.—On Feb. 6th, at the Greek Church, Moscow-road, W., Theodore Henry Ionides, M.B. Lond., B.S., F.R.C.S., of Palmeira-square, West Brighton, to Catherine, daughter of John Cavafy, M.D., F.R.C.P., of Upper Berkeley-street, W.

LOCKET—STEELE.—On Feb. 5th, at Liscard, Thomas Wood Locket, M.A., M.B. Camb., Atherstone, Warwickshire, to Hilda, daughter of W. J. Steele, of Priory Nook, New Brighton.

PARROTT—HOOPER.—On Feb. 6th, at St. Paul's Church, Ramsgate, Thomas Godfrey Parrott, L.R.C.P. Lond., M.R.C.S., of Aylesbury, to Maude Frances, eldest daughter of the late Rev. J. H. Hooper of Faversham.

RAWLINGS—MORRIS.—On Feb. 6th, at Holy Trinity Church, Hartlepool, Surgeon-Lieutenant-Colonel James Rawlings, J.P., of the Durham Artillery, Hughenden, Hartlepool, to Maria, widow of the late F. G. Morris, J.P., of Moore House, Hartlepool.

DEATHS.

EDIS.—On Feb. 8th, at Barton-street, Gloucester, Thos. Edis, M.R.C.S., L.S.A.

HARDCASTLE.—On Feb. 11th, at 18, Chester-Crescent, late of Archbold Lodge, Newcastle-upon-Tyne, Hugo Macauley Hardcastle, M.D., second son of the late Bey Hardcastle of Alexandria, aged 36.

SWIFT.—On Feb. 6th, at 14, Leyburn-terrace, Dover, Benjamin Pratt Swift, M.D., Deputy-Inspector-General of Hospitals, late 14th and 98th Regiments, aged 79.

WALKER.—On Feb. 9th, at 54, Fulham-park Gardens, S.W., the Rev. Hyde Edwards Walker, M.A. Oxon., L.R.C.P. Lond.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (17th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.). Gt. Northern Central (2.30 P.M.).

TUESDAY (18th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (19th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (20th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (21st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.). Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY (22nd).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (17th).—SOCIETY OF ARTS.—8 P.M. Professor J. M. Thompson: The Chemistry of certain Metals and their Compounds used in Building, and the Changes produced in them by Air, Moisture, and Noxious Gases, &c. (Cantor Lecture.)

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. W. Watson Cheyne: The Objects and Limits of Operations for Cancer. (Lettsomian Lecture.)

TUESDAY (18th).—ROYAL STATISTICAL SOCIETY (Royal United Service Institution, Whitehall, S.W.).—5 P.M. Dr. F. Warner: Mental and Physical Conditions among 50,000 Children seen 1892-94, and the Methods of Studying Recorded Observations, with special reference to the Determination of the Causes of Mental Dulness and other Defects.

SOCIETY OF ARTS.—8 P.M. Mr. H. F. Parshall: The Development of Electrical Traction Apparatus.

WEDNESDAY (19th). — ROYAL METEOROLOGICAL SOCIETY (25, Gt. George-st., Westminster).—7.30 P.M. Mr. Edward Mawley: Report on the Phenological Observations for 1895.—Mr. Robert H. Scott: Notes on the recent unusually high Barometer Readings in the British Isles.—Mr. Richard Inwards: Turner's Representations of Lightning.

SOCIETY OF ARTS.—8 P.M. Mr. H. Macan: Report of the Royal Commission on Secondary Education.

NORTH-WEST LONDON CLINICAL SOCIETY.—8 P.M. General Meeting.—8.30 P.M. Clinical Meeting.

ROYAL MICROSCOPICAL SOCIETY (20, Hanover-sq., W.).—8 P.M. Mr. F. R. Dixon Nuttall: On the Male of Stephanoceros Eichhornii—Messrs. W. and G. S. West, New Freshwater Algæ.

THURSDAY (20th).—HARVEIAN SOCIETY (Stafford Rooms, Titchborne-street, W.).—Dr. J. E. Squire: Some Clinical Aspects of Pneumonia.

SOCIETY OF ANÆSTHETISTS (20, Hanover-square, W.).—8.30 P.M. Dr. Prince Stallard (Manchester): Pental, its administration in 150 cases.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (17th).—LONDON POST-GRADUATE COURSE.—Roy Lond. Ophthalmic Hospital, Moorfields, 1 P.M., Mr. W. Lang: Conjunctival Affections.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Mr. G. C. Wilkin: Nasal Polypi.

TUESDAY (18th).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Stupor, Katatonia, Dementia and Senile Insanity.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

WEDNESDAY (19th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Habershon: Pneumothorax.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Parasitic Diseases (Animal).

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. Eccles: Anomalies of the Testis in relation to Herniæ.

LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. Q. Silcock: Affections of the Iris.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: Impetigo and Cutaneous Suppuration.

THURSDAY (20th).—ROYAL INSTITUTION.—3 P.M. Prof. H. Marshall Ward: On some Aspects of Modern Botany.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., 5.30 P.M., Mr. Jonathan Hutchinson: Clinical Lecture. Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M. Dr. Allan Macfadyen and Mr. A. G. Foulerton: Qualitative Tests for Albumins.

FRIDAY (21st).—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M. Prof. Crookshank: Antbrax and Malignant Œdema.

ROYAL INSTITUTION.—9 P.M. Mr. E. Frankland: The Past, Present, and Future Water Supply of London.

SATURDAY (22nd).—ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Light.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Pustular Dermatitis.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 13th, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radiation Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Feb. 7	30·48	S.W.	44	43	51	47	39	...	Cloudy
,, 8	30·24	S.W.	41	40	77	55	38	...	Cloudy
,, 9	30·17	W.	50	49	63	54	40	0·09	Bright
,, 10	30·41	W.	38	38	71	51	38	...	Foggy
,, 11	30·48	W.	43	42	65	52	38	...	Hazy
,, 12	30·34	S.W.	41	40	81	57	40	...	Fine
,, 13	30·41	N.E.	47	45	62	48	41	...	Cloudy

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*.; by post, 2*s*. 3*d*.

To be obtained on application to the Manager, accompanied by remittance.

THE PAYMENT OF FEES FOR THE NOTIFICATION OF INFECTIOUS CASES.

To the Editors of THE LANCET.

SIRS,—Is there any regulation or rule as to the date when notification fees become due? I find I have not received any fees for cases notified last July. Would it be considered correct to send my account for fees due to the sanitary authority or had I better wait patiently till March 25th? I should be obliged if you would answer these questions in your next edition. I am, Sirs, yours truly,

Feb. 10th, 1896. SANITARY.

*** There is no rule as to this, and the practice varies largely according to the number of notifications received by the authority in question. As most of the accounts of town and district councils are made up to March 25th we should advise waiting until that date has passed.—ED. L.

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THE TREATMENT OF CEPHALALGIA.

de W. H. writes:—"Can anyone assist me in prescribing a remedy for a patient who has suffered for many years from acute pain of a neuralgic character, situated chiefly over the forehead, but sometimes over the occipital region? The patient in question has suffered from every symptom of left renal calculus for many years, but declines to have any operative interference. She is above middle age, passes large quantities of pus in the urine, and very occasionally blood. No drugs that I have prescribed give any material relief."

C.O.H.—Measles, being a disease which kills some 10,000 to 14,000 persons every year in England and Wales, is certainly a dangerous infectious disorder within the meaning of Section 126 of the Public Health Act, 1875. The omission of the word "measles" from Section 6 of the Infectious Disease (Notification) Act, 1889, does not affect this; indeed, measles is often added to the notifiable diseases under Section 7. How far magistrates would take account in any proceedings under Section 126 of the indifference of the public to regard the fatal and dangerous character of measles is a matter which could only be determined as the result of experience. But the section has not often been utilised in the case of measles.

N. I.—The only drug which has been found to yield any good result in such a case is arsenic. It may be given as Fowler's Solution or in the form of arseniate of iron in pill.

Journalist.—A coroner is a judge; the court is his court, and he can admit to, or exclude from, it whomsoever he pleases.

"THE POSITION OF NURSES."

To the Editors of THE LANCET.

SIRS,—A correspondent in THE LANCET of Feb. 1st censures the loquacity of nurses from a medical point of view. May I, from a patient's point of view, ask if nothing can be done to stop nurses from regaling such patients as they may have under their care, who are able to listen to them, with minute details of the various unpleasant incidents and objects they have witnessed during operations and of other matters which I hope I may describe without offence as "horrors of the hospitals"? I happen to have had several relatives and friends under the care of trained nurses recently, and though I cannot say that their recovery was in any way retarded I can confidently say their minds would have been easier during its progress had they been allowed to dwell upon pleasanter topics. As far as I have been able to ascertain, conversation and anecdotes of the kind indicated are indulged in almost invariably, though whether it is thought that a display of experience, and possibly callousness, will breed respect in the patient, or whether the simple pleasure of making a fellow-creature's flesh creep is their motive, as with the Fat Boy, I cannot tell.

I am, Sirs, yours faithfully,

The Temple, Feb. 4th, 1896. A LAYMAN.

A QUESTION OF ETHICS.

To the Editors of THE LANCET.

SIRS,—An expression of your opinion on the following case will greatly oblige:—B. is called to see a child dangerously ill—in fact, so ill that the patient dies a few hours after his visit. B. makes his examination and is about to leave, when the father of the child tells him that the child has been under the care of A.; B. then says that as such is the case he cannot attend, as the patient is A.'s. The father says, "No, I am far from satisfied with A.'s treatment, and I am not going to have him again." B., however, tries to persuade the father to alter his decision, but the father replies that if B. will not undertake the case he will get someone else, as he does not intend A. to treat it again. Thereupon, B. tells the father that he (the father) must let A. know, and B. then takes the case. A messenger then comes to B.'s surgery for the medicine which B. gives and at the same times inquires if A. has been informed of the change of medical men, and, upon being answered in the negative, B. tells the messenger that he should at once let A. know. In the meantime A. calls and finds he is superseded by B. Is B. correct in taking the patient after the father has asserted most positively that A. shall not treat the patient further? Is B. under an obligation to let A. know, and, if so, is he to withhold his assistance until A. is informed.

I am, Sirs, yours truly,

Feb. 10th, 1896. ETHICS.

*** B. seems to us to have acted with complete propriety. It was the duty of the parent to inform A. of his wish for a change in medical attendance. It was not B.'s fault that that duty was not discharged, though there is no harm in a friendly communication between practitioners who are not being candidly dealt with by the parents. B. was right in taking the patient; it would never do to let a dying child fall between two stools because the father acts with indecision.—ED. L.

L.R.C.P. Lond.—We think in the circumstances our correspondent should not send medicines. He has ceased actual attendance and is not a mere retailer of drugs. The by-law gives him a good excuse. If a prescription is required there is no objection to his supplying that; but, of course, that is a new and separate service.

A PLEA FOR CONSIDERATION.

A CORRESPONDENT draws our attention to a certain want of courtesy towards the applicants for assistancies. He gives as examples the fact that he has replied to two dozen advertisements, and in one case only did he receive a card in reply saying that the vacancy had been already filled up. On another occasion his photograph was retained for a fortnight. We fear these things will sometimes happen, and not only because the advertiser may be a little inconsiderate. Sometimes the number of replies to such advertisements are very large. But we hope all our advertisers will take in good part our little recommendation to be thoughtful.

"'THE LANCET' COMMISSION ON DANGEROUS PARAFFIN LAMPS."

DR. KYDD of Forfar, N.B., does not agree with the conclusions of this Commission. He thinks the American oils are at fault, and supports his contention by adding that he has tested paraffin by dipping lighted matches into it, but in every case the match was extinguished!

"CHOREA GRAVIDARUM."

To the Editors of THE LANCET.

SIRS,—As in a letter in THE LANCET of July 6th, 1895, from Dr. M'Cann a wish was expressed that all who meet with examples of this malady would publish them, I beg to forward you a short account of one which occurred recently in my practice.

On Dec. 27th, 1895, a young woman aged twenty-four years, at about the end of the seventh month of her first pregnancy, was brought to my surgery suffering from severe chorea. Under the treatment adopted—bromide of potassium, tincture of belladonna, and liquor arsenicalis—there seemed to be a little improvement, but on the 30th I was sent for to see her at her own home, and found her suffering from choreic convulsions of great violence. Her home circumstances were such that I advised her immediate removal to the workhouse hospital. I have since ascertained that she had previously suffered on two occasions from chorea. On the last, three years ago, she was an inmate of the Beckett Hospital, Wakefield, when the disease was very severe; she had also suffered from rheumatism. She was a small woman, thin and emaciated. For the further progress of the case I am indebted to Dr. Robinson, surgeon to the workhouse, who informs me that, owing to her continuous movements, he was unable to decide definitely whether the child was living or not, but he thought he could detect the fœtal heart over the umbilicus. The attacks were most violent and without intermission, feeding her being very difficult; when food was put into the mouth it was frequently rejected, owing to incoördination of deglutition. She was delirious and at times almost maniacal; her heart was normal, as was also her urine. On the first day of her residence in the workhouse no improvement took place from large doses of bromide of potassium, chloral hydrate, belladonna, and liquor arsenicalis. On the next day, however, the improvement was so great that the intention of inducing premature labour was postponed, but at 11.30 P.M. of that day death took place from syncope.

I am, Sirs, yours truly,

Rotherham, Feb. 6th, 1896. WM. OXLEY.

Inquirens.—We may say that the visiting by the medical officer of health of infectious diseases when notified "to see if they had been correctly diagnosed" is generally most improper and, as the Local Government Board have decided, "most undesirable." But there are exceptions to this rule. The matter was most fully discussed in the second of our series of articles entitled "Difficulties under the Infectious Disease (Notification) Act," see THE LANCET, Jan. 19th, 26th, and Feb. 9th and 16th, 1895.

Mr. A. A. Mitchard should consult a patent agent of known reputation.

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The Lettsomian Lectures
ON
THE OBJECTS AND LIMITS OF OPERATIONS FOR CANCER.

Delivered before the Medical Society of London

By W. WATSON CHEYNE, F.R.C.S. Eng., F.R.S.,
PROFESSOR OF SURGERY AT KING'S COLLEGE; SURGEON TO KING'S COLLEGE HOSPITAL, ETC.

LECTURE II.[1]

Delivered on Feb. 17th, 1896.

MR. PRESIDENT AND GENTLEMEN,—In this and part of the next lecture I propose to consider the question of cancer as it affects the mouth and throat, more especially the pharynx. Here, as in the case of the breast, there is no real alternative operative procedure to that of removal with the view of cure. Œsophagotomy, gastrostomy, or tracheotomy, although they may prolong the patient's life for a very short time, do not add materially to his comfort, and can in no way be looked on as alternatives to a radical operation, and in these cases, therefore, as in the breast, I do not think than we can do very much in the way of selection of cases for operation.

As compared with cancer of the breast the disease in the throat is in some ways more favourable for cure, in other ways less so. As regards the primary diseases the breast cancer is by far the most favourable of the two, for there it is fully exposed to view, and there is plenty of room for its free removal without endangering important structures. In the mouth and throat, on the other hand, the disease is close to if not involving many important parts, the space in which one has to work is very limited, one cannot get much margin of healthy tissue around, and the early spread of the cancer to muscle, especially in the case of the tongue, tends to distribute it over a considerable area. In the throat, also, the disease is much less favourable for operation because the septic element comes into play, and thus, instead of having to do with an operation as in the breast where the mortality is practically *nil*, we have to face a very considerable risk of death from septic disease. On the other hand, cancer in the mouth and throat is more favourable as regards the glandular deposits, for in the neck we have an extensive glandular area exposed to view which can be much more thoroughly dealt with than in the case of the breast. It is true that many surgeons look on the glandular trouble as a most serious part of the disease, but for reasons which will be afterwards stated I do not agree with this. In one other respect, also, cancer in the mouth and throat is more favourable than that in the breast—viz., that metastatic deposits, which so often disappoint us in the latter case, are quite infrequent in the former. Cancer in the mouth and throat is most conveniently considered under three heads—viz.: (1) cancer of the tongue; (2) cancer of the pharynx, tonsil, soft palate, epiglottis, &c.; and (3) cancer of the larynx.

1. CANCER OF THE TONGUE.

So much has been written already on cancer of the tongue that I will not take up time in discussing it, more especially as I wish to go pretty fully into the question of cancer of the pharynx, a still more serious form of the disease, one about which less has been written, the operations for the relief of which are among the most formidable and difficult in surgery, and which has recently interested me very much; I may, however, be asked whether I adhere, in the case of the tongue, to the principles of treatment laid down with regard to the breast, more especially with regard to two points. Firstly, as cancer of the tongue very soon spreads into the muscular substance, must Heidenhain's law be followed, viz., the removal of the whole muscle; and, secondly, should the nearest lymphatic glands be taken away in every case? The answer is practically "Yes" to both questions. If we want justification for thorough operations in the case of cancer of the tongue, it is to be found in the great frequency of recurrence after operation, varying from 61 per cent. in Kocher's statistics up to 89 per cent. in Winiwarter's. It is difficult to estimate the relative frequency of local and glandular recurrence and they most usually occur together, but on the whole local recurrences seem to be quite as frequent as glandular recurrences alone. The question of how much of the tongue should be removed, and more especially whether the genio-hyo-glossus should be followed quite down to the hyoid bone, depends very much on the situation of the disease. Cancer of the tongue, as it comes under the notice of the operating surgeon, presents itself under two chief forms—viz., either as a more or less superficial warty growth, especially along the sides of the tongue, or as a deep ulceration extending well into the substance of the organ. In the former case the deeper muscles of the tongue are not yet affected, in the latter they are, and corresponding to this we find a difference in the results of operation. Taking one of the most recent statistics of tongue cancer—viz., Kocher's results as published by Willy Sachs[2]—we find that in 19 cases the cancer was more or less superficial, and that of these 3 were cured by operation (taking the three-year limit), or 15 per cent., 4 had remained well for one year or more, 2 died, and of the remainder 5, or 27 per cent., certainly recurred, and the ultimate result of the others is not known; while there were 27 cases where the cancer had penetrated into the deeper substance of the tongue, of which only 2, or 7 per cent., were cured, 4 died, and the remainder either recurred or there is no note of them after operation; certainly 11, or 40 per cent., are known to have recurred. In the superficial form the tongue is not saturated with the cancer cells to anything like the extent that occurs where the disease has extended deeply into the muscle, and accordingly we have the more favourable results just alluded to, and the operation need not be so severe. Thus, in the superficial and laterally placed tumours removal of half the tongue is in all probability sufficient, and where the tumour does not extend deeply into the substance of the muscle the muscular fibres need not be followed down to the hyoid bone; on the other hand, where we have to do with a cancer which has penetrated into the substance of the tongue we must look on the whole of the tongue muscles, at any rate on that side, as infected, and whether we content ourselves with removal of the affected half or not we must follow the muscular fibres right down to their attachment to the hyoid bone. A second point to be noted in connexion with operation for cancer of the tongue is the distribution of the lymphatic vessels. Where the cancer affects the base of the tongue we have to do with a large lymphatic plexus which is not unilateral and under these circumstances we often find enlarged glands on both sides of the neck. This plexus runs into glands in the anterior triangle about the angle of the jaw, and the lymphatic vessels seem to be specially connected with, or related to, the posterior belly of the digastric muscle. On the other hand, many of the lymphatic vessels at the anterior part of the tongue and the floor of the mouth run towards the submaxillary region, and it is there, and subsequently about the cornu of the hyoid bone, that the first enlargement of lymphatic glands is usually evident. Where the disease is superficial and affects the front part of the tongue the glands are not so early affected and it is not so necessary to remove the glandular area in the first instance, but I think it is always well to take away the submaxillary and sublingual glands on the affected side along with the lymphatic glands so closely associated with them, and therefore I always tie the lingual artery in the neck and clear out these glands with the fat in the neighbourhood, even although no glands can be felt, and then clip out the tongue from the mouth. In this case the wound in the neck does not communicate with the mouth and remains aseptic, and does not, therefore, add anything to the danger of the operation. Where, however, the cancer extends deeply into the substance of the tongue, and more especially where it is situated at the back part, some more severe procedure, such as Kocher's operation, with thorough removal of the glandular area and of the muscle down to the hyoid bone, becomes requisite. The mortality in the latter case is naturally greater, but has been much reduced of late years in accordance with improved methods of treating the wounds. Kocher's results show this very markedly, for while prior to 1882 he had 5 deaths in 29 cases, or 17·2 per cent., between 1882 and 1888, when he improved his methods, he had 1 death in 28 cases, or a mortality of 3·5 per cent. So also Winiwarter, publishing in

[1] Lecture I., delivered on Feb. 3rd, 1896, was published in THE LANCET of Feb. 15th. Lecture III. will be delivered on March 2nd.

[2] Langenbeck's Archiv, vol. xlv.

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1878, gives a mortality of 42 per cent., while Volkmann had only 2 deaths in 91 cases, or a mortality of 2·2 per cent., Winiwarter's large mortality being essentially due to sepsis, septic pneumonia, &c. Taking mild and severe cases together and the statistics of a large number of surgeons the mortality may be estimated at from 15 to 20 per cent. As regards cures, they are not, of course, nearly so frequent as in the breast, but this is to a great extent due, I think, to not taking away enough of the tongue muscles in deep-seated cases and more especially to not clearing out the glandular area properly. And, further, some surgeons are very apt to look on glandular enlargements, unless very small, as inoperable, and thus abandon patients to their fate who might, I think, still have had a fair chance by operation. Winiwarter gives 2·3 per cent. of cures and 42 per cent. mortality; König 12 per cent. cures and 28 per cent. mortality; Kocher (leaving out the last three years) 18 per cent. cures and 11 per cent. mortality. With regard to Kocher's cures, 8 in number (one after operation for recurrence), it must be noted that in two of them cancer again appeared in the mouth ten and twelve years respectively after the operation; while one died seven years later from cancer of the stomach. The first two cases must, however, I think, be looked on rather as fresh disease than as recurrence of the former. I feel sure that when the recent work on cancer is more thoroughly applied to the tongue, more especially as regards the removal of the glands, we may look for further improvement in the results. I must not, however, take up more time in considering disease of the tongue; what I have to say about the removal of the glands and the after treatment in connexion with pharyngeal disease applies equally to cancer of the tongue, and therefore I shall leave these points till I come to speak of cancer of the pharynx. The limits of the operation for cure in cases of disease of the tongue are, in my opinion, the following: very extensive infiltration of the tongue muscles, especially downwards towards the hyoid bone; extensive affection of the jaw in addition to the tongue; extension to the upper part of the larynx; and involvement of the carotid artery and vagus nerve in the large glandular mass. In these cases I doubt if we can do very much in the way of operation which can be beneficial to the patient. In cases where the glandular enlargement is marked some surgeons advise the removal of the tongue with the view of taking away the disease in the mouth, which is the most distressing thing to the patient, but an essential for such a procedure is that there should be a good probability of subsequent non-recurrence in the mouth, and for my own part I think that in most cases where the disease in the mouth is of such small extent as to render it probable that it will not recur locally after operation, the glandular disease can also be taken away and a cure aimed at. In cases where the glandular enlargement is really inoperable the removal of the tongue, if local recurrence did not take place, would no doubt be of advantage to the patient, but failing that we must be content so far as operative measures are concerned with such substitutes as division of the gustatory nerve, tracheotomy, &c.

2. CANCER OF THE PHARYNX.

Cancer may begin anywhere in the pharynx, but most commonly (apparently in over 60 per cent. of the cases) it commences in the mucous membrane over the tonsils or pillars of the fauces, and spreads thence over the neighbouring parts. From the tonsil the disease spreads most often and earliest on to the pillars of the fauces and upwards to the soft palate, next most frequently downwards on to the base of the tongue, and, lastly, backwards over the pharynx; indeed, in most cases which come under view, one usually finds most or all of these parts affected, even on the first occasion when one sees the patient. Epithelioma, also, sometimes, though not nearly so commonly, begins about the epiglottis and orifice of the larynx, and the third point of selection is lower down, close to or at the commencement of the œsophagus. It is remarkable how little trouble the disease causes at an early period; sometimes, as in the ninth case (No. 39, Table 3[3]), the patient does not observe anything wrong till the occurrence of bleeding attracts his attention. In other instances, as in Case 4 (No. 127), he first notices a frequent desire to clear his throat, or, again (Case 6, No. 26), a feeling of uneasiness and dryness about the throat, and very commonly pain shooting up to the ear. Indeed, in not a few instances the first thing which leads him to call in a surgeon is the enlargement of the cervical glands in the neighbourhood of the angle of the jaw. Consequently, as epitheliomata in this region apparently grow very readily and rapidly, it is but seldom that the patient seeks advice before the disease has spread to an alarming extent, and when he does apply the case is generally regarded as hopeless, and he is condemned to palliative treatment. Nevertheless, as will be evident from the list of cases I have put together, a considerable number of operations have been performed for cancer in this region, the success, however, naturally being limited owing to the desperate nature of the case and the peculiar position of the disease, to some extent to the removal having been imperfectly carried out, and also to the limited experience of the individual operator, owing to the rarity of the disease. In considering the question of cancer of the pharynx it is most convenient to divide this part into several regions, for the method of operation and the result of treatment vary very much according to the part affected. Thus we may speak of (1) cancer in the naso-pharynx; (2) cancer affecting the soft or hard palate alone; (3) cancer affecting the tonsillar region and spreading thence to the neighbouring parts; (4) cancer affecting the pharynx proper; and (5) cancer affecting the pharynx and larynx. Of these I have omitted entirely cancer of the soft or hard palate alone, because these cases are comparatively limited and readily dealt with from the interior of the mouth, and also because many of the palate tumours described as alveolar sarcomata and adenoid carcinomata are in reality quite simple growths and have no tendency to recur after removal. Nor have I gone into the results with regard to cancer of the naso-pharynx, but I nevertheless mention three cases in which I have operated in this situation, more, however, with a view of putting them on record than for the purpose of discussing this part of the subject. Further, I have in my list included sarcomata as well as carcinomata, and I have done so on account of the great interest of the operative procedures, and the fact that apart from the likelihood of recurrence the question whether we have been dealing with a sarcoma or a carcinoma does not materially influence the methods of operation, the functional result, or the result as regards life. I think I can best give a view of the whole matter if I devote the rest of to-day's lecture to a description of the cases in which I have myself operated, and subsequently refer to the tables which have been placed in your hands giving the operative results which have been attained in this disease. In the first place I shall describe three cases of disease in the naso-pharynx.

CASE 1. *Lympho-sarcoma of the left side of the naso-pharynx involving the Eustachian tube and growing from the base of the skull.*—The patient was a male aged forty-six years, and was first seen by me on March 9th, 1892. The patient consulted Dr. Urban Pritchard about a year previously on account of buzzing in the left ear. At that time there was no suspicion of new growth. About six months afterwards he noticed that he was becoming deaf on the left side, and for the last three months he had observed that there was some obstruction of the left nostril. He, therefore, saw Dr. Pritchard for the second time at the end of February, 1892, and on examination a growth was found on the left side of the naso-pharynx, blocking and apparently involving the Eustachian tube. Dr. Pritchard had a consultation with Dr. Greville Macdonald, and as a result the situation and extent of the growth were described to me and the problem was put whether any operative interference was possible in the case of a malignant tumour in this region. The patient was particularly desirous, in connexion with his private affairs, that if possible some extension of life might be obtained for him. I took the matter into consideration and decided that an operation was possible, and accordingly I saw the patient on March 9th, 1892, and found the following state of matters. The patient was in good general health and had not been losing flesh or strength lately. The various organs of the body appeared to be healthy. The hearing on the right side was normal, on the left side a watch was only heard when applied to the ear; breathing through the left nostril was almost completely obstructed. On looking into the mouth nothing could be seen beyond fulness of the soft palate on the left side. With the rhinoscope a prominent tumour was evident, projecting on the left side of the naso-pharynx, reaching inwards as far as the septum, downwards to and involving the soft palate, backwards to the back of the pharynx, and upwards to the base of the skull. The Eustachian tube was apparently involved in the growth, and in our opinion it had started from that part. The tumour was slightly ulcerated at the upper part, but there had been no bleeding or pain. With the finger the outlines of the tumour could be readily made out. It did not seem to extend into the nasal cavity, but it pushed down the soft palate and extended into it. A mass of enlarged glands was felt at the upper part of the left anterior triangle and extending under the sterno-mastoid muscle. This mass was not at all freely movable. I explained to the patient the extent and seriousness of the operation and the great probability of recurrence, but as it was of great importance to his family that he should live as long as possible he decided in favour of the operation. On March 13th, 1892, I performed the following operation, assisted by Messrs. Stanley Boyd and Burghard. Just at the time that this case occurred Dr. Wright had published some papers on the value of chloride of calcium in increasing the coagulability of the blood and also of fibrin ferment as a styptic, and I therefore asked him to be present and to superintend the use of these substances, for I anticipated that there would be a good deal of bleeding. Accordingly an hour before the operation a pint of water containing half an ounce of chloride of

[3] Table III., occasionally alluded to, follows in next lecture.

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lcium was injected into the rectum, and during the operation edgets of salicylic wool soaked in Wright's fibrin ferment solution ere applied to the freshly cut surfaces. Whether as the result of this eatment or not, the fact is that extremely little blood was lost, I do ot think more than an ounce or an ounce and a half in all. By means an oblique incision carried along the anterior part of the sterno-astoid muscle a mass of glands was removed from the neck. They ere deeply seated, being attached to the fascia over the atlas, the inal accessory nerve running in front of them. In addition, the fat id tissues in the vicinity were, of course, also taken away. After their moval the tumour could be felt from the wound, and as it was certained that the vessels were in no way involved in it the further peration was proceeded with. The next step was the performance of acheotomy and the insertion of a Hahn's tube. I then proceeded to move the upper jaw on the left side, the usual skin incisions being ade. The periosteum and mucous membrane of the hard palate were, owever, detached from the bone and left behind, and the orbital late of the superior maxilla was also left. After the removal of e upper jaw the base of the pterygoid process was divided with ne forceps and the process removed; the front of the tumour uld then be seen. The next step was to detach the tumour om the external pterygoid muscle, the other tissues outside it, and e soft palate. It was then found to have originated from the peri-steum of the base of the skull and to have grown downwards along e side of the pharynx, involving the Eustachian tube in its course. portion of the Eustachian tube was removed and the mucous mem-rane all around the tumour was divided. The periosteum over the hole roof of the naso-pharynx was then carefully detached as far out s the foramina for the vessels, and as far forward as the disease seemed extend. A layer of the surface of the bone was then chipped off nd the whole bare surface cauterised with Paquelin's cautery; the ard palate was then stitched to the cheek and the wound was closed rith sutures. As has already been said, very little blood was lost, and, s a matter of fact, the preliminary tracheotomy proved to have been uite unnecessary. The operation lasted about two hours. There was emarkably little shock after the operation and by the evening it ad quite passed off. There is very little to say about the further rogress of the case. The temperature only once reached 100° F., nd that was on the morning after the operation, and the further rogress towards recovery was uninterrupted. It was very extra-rdinary what an entire absence there was of septic absorption. he tracheotomy tube was left out on the day after the operation, all he stitches were removed on the fifth day, the patient got up on the nth day, and left town on the twenty-third day. Very shortly after-ards he was able to resume business, and for about fifteen months here was no sign of recurrence in the nose, although in March, 1893, hat is to say, a year after the first operation, I removed some small lands from the left posterior triangle of the neck. In July, 1893, owever, he began to have some bleeding from his nose, and accord-ngly I reopened the scar and found that recurrence had taken place at he roof of the nasal cavity in front of the former seat of the disease, he situation of the original tumour, however, remaining perfectly ell. I cleared this part as thoroughly as possible, and for a time he ent on very well; but in the spring of 1894, about two years after the rst operation, he began to go down-hill, bleeding occurring again from he nose, and glands enlarging on the other side of the neck. He radually became worse, and ultimately died on Dec. 14th, 1894, two nd three-quarter years after the first operation, having had time to put is affairs in good order and to provide for his family.

Quite recently I have had another somewhat similar case, hich I may introduce here.

CASE 2. *Lympho-sarcoma growing from the base of the skull and projecting into the naso-pharyngeal cavity.*—A female aged twenty-four ears was admitted to King's College Hospital on Dec. 2nd, 1895. The atient had noticed stuffiness in her right nostril as long ago as last ugust, but thought it was a cold and paid no attention to it. It, owever, gradually became worse in a few days when she consulted Dr. V. H. Dobie of Chester, who diagnosed the condition of matters and ent her up to me. The patient is a young woman in good health, who as not been wasting, and only complains of this feeling of stuffiness in he nostril. Nothing is seen by inspection of the mouth, but with the nger a hard mass is felt through the soft palate, especially on the ight side. On examination with the rhinoscope a rounded swelling is een growing from the roof of the naso-pharynx and filling up most of he space, no ulceration over it, and it is not pedunculated. With the nger passed up behind the soft palate a firm tumour is felt which pparently does not extend into the nasal cavity and is nearly centrally situated; no enlarged glands in the neck. On Dec. 22nd, 1895, the atient was anæsthetised with chloroform and the soft palate was split n the middle line, the incision being carried through the mucous embrane and periosteum of the hard palate nearly to the front. The periosteum of the hard palate was then peeled off the posterior art, and by means of a chisel and hammer a curved portion of the ack part of the bone of the hard palate, as well as the posterior part of he vomer, was chipped away. The soft parts being held aside by a tring passed through each flap, a very fair view of the tumour was btained, the head hanging down. An incision was then made through he mucous membrane and periosteum over the base of the skull all ound the growth and as far from it as possible, and then the eriosteum and the tumour over it were detached. After detaching he periosteum and after bleeding had been arrested by pressure, the hole raw surface was thoroughly painted over repeatedly with nitric cid, and after the acid had acted for some time a solution of carbonate f soda was applied to the part. The soft and hard palate were then nited with stitches, no dressing of any kind being applied to the round. The recovery was uninterrupted. The palate united per-ectly, and when the patient was sent home on Jan. 10th the raw urface was granulating nicely and seemed perfectly healthy. From he second day after the operation the patient was kept in a itting position. In this case it will be seen that a totally ifferent method of procedure was adopted from that which was mployed in the former case. In the former case, however, he tumour was unilateral, and as far as one could judge xtended well into the side of the neck, and it did not seem at all ossible to get satisfactory access to it from below; in the latter case it as centrally situated, and it seemed to me that the method employed ould be sufficient. I must say, however, that of the two plans I believe the former—namely, the excision of the upper jaw, or, at any rate, a temporary resection of it, and removal of the pterygoid process—is much the more satisfactory. In the first case I could see exactly what I was doing, and had no difficulty in obtaining complete access to the whole affected area; in the latter case it was difficult to be quite certain whether I had got well beyond the growth at the anterior part, and though this last plan may be useful in cases where the tumour is quite small and centrally placed I should be inclined in most cases to employ the former method. The remarkable absence of any septic phenomena in both these cases is very striking, and I attribute it mainly to the free escape of the discharge from the surface of the wound as the result of the position of the patient, and also to scrupulous care in cleansing the mouth and in avoiding the introduction of any septic infection from without. Both cases show that tracheotomy is quite unnecessary in these operations.

The following case may also be added to this group, although the disease extended further forwards.

CASE 3. *Spindle-celled sarcoma growing from the roof of the nasal cavity, involving the sphenoidal, ethmoidal, and frontal sinuses and destroying the upper part of the nasal septum.*—The patient was a female about forty years of age sent to me by Dr. Edward Law and seen on Feb. 14th, 1894. There was a history that the patient had suffered from nasal polypi for ten years, these polypi being, however, not the ordinary mucous polypi, but evidently of a more or less malignant character. She had been operated on many times and in many ways. Recently she had been under the care of Professor Volkmann, who had attempted to destroy the growth with the thermo-cautery and as a result the orifice of the nostril had been much burned and had become so contracted that it was impossible to see into it. The right nostril was completely filled up with growth which distended the nose and destroyed the nasal bones, and at the bridge of the nose a soft tumour was felt and seen projecting forwards; the frontal eminence was much more marked on the right side than on the left. The eye was pushed towards the right side and also projected forward. There was no swelling of the superior axilla, but electric illumination of the mouth showed a greater area of opacity on the right side than on the left. By posterior rhinoscopy a globular mass with a smooth surface and of a mucous appearance was seen projecting into the naso-pharynx and pressing on the right Eustachian tube. The nasal septum was pushed towards the left and almost blocked the left nostril. The patient was a public singer, and, curiously enough, her singing voice was unaffected. On March 7th, 1894, I performed the following operation. An incision was made along the right side of the nose, from the frontal bone downwards to the back part of the orifice of the nostril, and the ala and right side of the nose were detached and turned over to the left side, the skin being carefully separated from the tumour in front. The tumour was partly cystic and was gradually separated from its attachments along with as much healthy tissue as possible. It filled and distended the right frontal sinus and projected somewhat into the left, but it came completely away along with the mucous membrane. It opened and projected into the right orbital cavity, and it grew from the whole of the roof of the nasal cavity, especially on the right side, and had destroyed the vomer at the upper part. Great care was taken to remove all the periosteum and the walls of the various cells as far as was consistent with safety. The surface of the bones was then cauterised and sponged with undiluted carbolic acid; the skin was replaced in position and stitched, and a plug was introduced into the right nostril so as to keep it open during the healing process. The right antrum was also full of pus, and it was opened in the usual manner through the alveolus and a drainage-tube inserted into it. Here, again, the subsequent progress of the case was absolutely free from any fever or other cause of anxiety. The temperature did not rise above 100° F., and she left the home within three weeks apparently well. She remained well up till a year ago, since which time I have not seen or heard of her. At that time she was hoping to get an engagement in an opera abroad and probably was successful. The tumour was a spindle-celled sarcoma.

I have put these three cases together on account of their great interest, but I have not made any attempt at collecting the cases of operation for malignant tumours in the naso-pharynx, and therefore I shall not dwell on them. I have already mentioned the two modes in which access was gained to the tumours in the first two instances and the remarkable freedom from sepsis in the after progress of all the cases. How far the operation in these cases is worth while is a matter which is difficult to determine. I believe that in a carcinomatous affection of these parts it would certainly—unless the disease were very extensive—be well worth while, but lympho-sarcoma is, of course, notably a very disheartening disease to operate on. Nevertheless, in the first case to which I have referred the result, although not a cure, was such as to place the patient in a very much better position than if the operation had not been done; and he himself was more than satisfied that the operation he had gone through was well worth the result obtained.

In the following cases we have to do with tumours lower down, in the pharynx proper or in the neighbouring parts; firstly, a case affecting both larynx and pharynx, then three successful cases, then three fatal ones, and, lastly, one where local recurrence took place.

CASE 4. (*No. 127, Table III*). *Epithelioma of the right side of the pharynx, the epiglottis, right aryteno-epiglottidean fold, the pharyngeal mass being also adherent to the thyroid cartilage.*—The patient was a male aged forty-two years under the care of Dr. Roxburgh of Weston-super-Mare. About the end of June, 1892, the patient had a feeling of stiffness about the right side of the throat when he yawned, but he did not pay any particular attention to it, and otherwise he had no trouble or pain. He saw Dr. Roxburgh about it for the first time on July 24th, and he diagnosed a malignant ulcer of the pharynx. The patient came

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up to town next day and saw a laryngologist, who confirmed the diagnosis and thought that the disease might be removed by operation. Two or three days later (on July 28th) he saw Dr. Greville Macdonald, who came to the same conclusion, and who arranged for me to go down and see the case, and if I approved to operate. I saw the patient on Aug. 1st, 1892, and operated the same day. On examination I found him in good general health and his various organs were healthy. Nothing was visible on inspection of the throat from the mouth, but with the laryngoscope a ragged ulcer somewhat larger than a shilling was seen on the right side of the pharynx, spreading on to the right aryteno-epiglottidean fold and possibly as far as the right side of the epiglottis. The vocal cords were normal. As far as any of us who had seen the case could judge the disease was quite limited. Until we came to the actual operation we had no idea that it had spread superficially in the mucous membrane to the extent which we found had taken place. The following were the steps of the operation: Preliminary tracheotomy performed and a Hahn's tube inserted. A long incision was then made parallel with the vessels and a transverse one along the border of the great cornu of the hyoid bone. The vessels were pulled outwards and the sub-maxillary gland was raised. It was found impossible to save the superior laryngeal nerve on that side. The pharynx was opened from the side and the disease exposed. It was found to be much more extensive than had been supposed because it spread superficially, and had not led to any marked thickening of the mucous membrane at the edge of the growth. It reached to the middle line behind, on to the tongue in front, and was adherent to the wing of the thyroid cartilage, but it was very difficult to define its extent on account of its superficial spread. The whole mass was removed—viz., the affected portion of the pharynx, the right aryteno-epiglottidean fold, a small part of the tongue, the greater part of the epiglottis, and a piece of the wing of the thyroid cartilage. The Hahn's tube was left in and a feeding-tube was introduced into the wound. The patient stood the operation well, the Hahn's tube was changed the next day for another, and as a section of the epiglottis made in the meantime showed that the epithelioma was spreading superficially quite to the edge of the cut the small remaining piece was clipped out. For the next two days the patient went on very well, but on Aug. 4th signs of septic pneumonia appeared and he went very rapidly downhill and died on the following day.

CASE 5 (*No. 22, Table III.*). *Round-celled sarcoma of the right tonsil, side of pharynx, soft palate, and lower part of the naso-pharynx.*—The patient was a male aged forty-five years sent by Dr. Felix Semon and seen by me on June 13th, 1894. Six months previously an enlarged gland was removed by another surgeon from the right anterior triangle of the neck, and on microscopical examination was said to be of a simple character. At that time nothing was noticed in the throat. About four months before I saw him he began to suffer from uneasiness and pain in his throat, but he did not consult anyone till June 13th, when he saw Dr. Semon, who, thinking that it was a case which might be operated on, sent him on to me. On examination, the right tonsil was seen to be much enlarged, ulcerated, hard, and fixed. The disease extended to the wall of the pharynx and on to the right side of the soft palate, and appeared to be adherent to the external pterygoid process. From the history of its rapid growth for the history, as I understood it at the time, was but of a few weeks' duration) and its general characteristics, it seemed to me to be infiltrating the tissues around to a great extent, and I thought that there was no reasonable prospect of taking away all the disease, and, therefore, advised him not to have an operation done, and this advice agreed with that of the surgeon who had previously operated on him and who came to me with him. I did not see the patient again till Aug. 29th. I then found that the tumour had increased greatly in size and was now filling up the pharynx to a considerable extent, reaching well beyond the middle line. It interfered greatly with swallowing and to some extent with breathing. The tumour was still very hard and ulcerated, but it did not give me the same impression of wide infiltration which it did formerly. I therefore reconsidered the question of operation, and came to the conclusion that it might, after all, be possible to remove the tumour, and seeing that he had not many weeks to live I put the question of operation to the patient (who, by the way, was a medical man), and he decided in favour of it. There were one or two enlarged glands in the anterior triangle of the neck at the seat of the former operation. On Sept. 11th, 1894, I operated as follows. In the first instance an incision was made along the line of the vessels, the glands removed, and the external carotid artery tied; the cheek was then split from the angle of the mouth to the masseter muscle. An incision was now made through the mucous membrane in front of the growth, the lower part of the pterygoid process was removed with bone forceps, and the affected portion of the soft palate was clipped away with scissors. At this stage it was found that owing to the throat being filled up with the growth the patient could not breathe properly during the necessary manipulations, and therefore tracheotomy was performed and a Hahn's tube inserted. By means of a blunt instrument the tissues in front of the tumour were separated till the internal pterygoid muscle was exposed, and a layer of that muscle was removed with the tumour in front of it. It was then easy to define the upper, posterior, and lower borders of the growth, and the healthy tissue was clipped through well beyond it on all sides. The growth had become adherent to the Eustachian tube, and a small portion of that tube was therefore removed. Hardly any blood was lost. The wound in the cheek and the external wound, which I think did not communicate with the mouth though I am not quite sure, were stitched up, a drainage-tube being inserted in the latter. The patient had practically no shock after the operation, and during the course of the case there was an entire absence of all septic complications, the temperature not once going above 100° F. On the next day, however, the patient had intense pain in his liver, which alarmed me very much, but on inquiry I found that this was a condition to which he was subject, which he termed "Suakim liver," and from which he had suffered periodically since the Egyptian campaign. His treatment for this condition was absolute starvation, and for nearly a week he would not take anything by the mouth and subsisted on rectal enemata and nutrient suppositories. When this liver trouble had passed off he was able to swallow fairly well, and there has been no trouble in swallowing since. The tracheotomy tube was left out on the day after the operation. The patient left the home between three and four weeks after the operation, and is still alive and well and is present here to-night. The local result has so far been absolutely satisfactory; there has been no local recurrence whatever, and the functional result is perfect. There is no difficulty in speaking or swallowing. Although there has been no local recurrence I found in March of last year that several glands had become enlarged in the lower part of the anterior triangle and under the sterno-mastoid, and I therefore performed a somewhat elaborate operation with the view of clearing them out. Last summer, also, he came to me and pointed out a small gland in the posterior triangle which he thought was enlarging, and I therefore cleared out all the glandular tissue from the posterior triangle and root of the neck, but found none which showed evidence of disease.

CASE 6 (*No. 26, Table III.*). *Epithelioma of the left tonsil and soft palate, with a large mass of glands in the anterior triangle of the neck adherent to the vessels, extending under the sterno-mastoid muscle and up to the base of the skull.*—The patient, a male aged fifty-five years, was sent by Dr. Felix Semon and seen by me on Oct. 13th, 1894. The history was that the patient first began to feel uneasiness about the throat during the previous June, and at that time he was treated for gout. In July he first noticed a swelling on the left side of the neck, and since that time the throat trouble has steadily increased and the glands have gone on enlarging. In September he saw a well-known surgeon, who said that the disease was malignant, but that no operation was possible. Dr. Semon, whom he then consulted, having the experience of the preceding case before him, thought that something might be done and therefore asked me to see him. The patient's condition at that time was as follows. Towards the upper part of the left tonsil there was a patch of ulceration with a very hard base and edge and a warty surface, which spread on to the pillars of the fauces and involved a considerable portion of the soft palate. There was also a very large mass of glands in the left anterior triangle, extending from the mastoid process downwards to the level of the thyroid cartilage and passing under the sterno mastoid muscle. The mass was firmly adherent to the vessels. We came to the conclusion that an operation was feasible, and accordingly explained to the patient its nature and risks. He at once decided to have it done. The operation was performed on Oct. 15th, 1894, and I was assisted by Dr. Semon and Mr. Venning. In the first place a long incision was made along the anterior border of the sterno-mastoid from the mastoid process to about the middle of the thyroid cartilage, and, the deep fascia being divided at the lower part, the jugular vein was exposed. It was found that the glands were firmly adherent to the sheath of the vessels, and therefore the jugular vein was tied in two parts below the mass and divided between the ligatures. The vein and glands were then raised in one piece, the deep fascia being divided well to each side, and it was found that the spinal accessory nerve passed through the middle of the mass. It was not, however, actually involved in the disease, and by separating the glands the nerve was retained intact. The jugular vein was tied at its point of exit from the skull, and the mass of glands, with the vein and all the fat and glands under the sterno-mastoid and well into the posterior triangle on the one hand, and on the other right up to and behind the angle of the jaw was removed. The external carotid artery was next tied, and the posterior belly of the digastric and the stylo-hyoid muscles were divided so as to allow the jaw to come well forward: and then, the head being thrown back over the table, and the mouth held open with a gag, the soft palate was clipped through well beyond the disease, and the mucous membrane was incised all round the area of the growth at a certain distance from it. By means of the finger in the external wound the limits of the growth were defined and the whole diseased mass was clipped out. A large drainage-tube was inserted from the external wound and the skin incision closed at the upper part by sutures. The patient was a good deal collapsed after the operation, but recovered the same evening and went on remarkably well. As in the previous case there was no rise of temperature or septic complication. For three days he was fed by means of rectal enemata and suppositories, but on the fourth day he began to swallow a little, and succeeded fairly well by following a suggestion made by Dr Semon, which was that he should lie flat in bed with his head turned to the right or sound side and hanging over the side of the bed. The food taken into the mouth in this way ran down the healthy side of the pharynx, and he was able to swallow a good deal. His power of swallowing very soon increased, more especially as the communication between the wound in the mouth and the exterior became shut off very rapidly. He got out of bed for the first time on the sixth day, and the drainage-tube was left out on the eleventh day. I had, however, to put the tube back again a couple of days later on account of accumulation in the wound, and this external sinus remained open for a few weeks, but closed before the end of the year without anything further being done for it. When I saw the patient last, in the middle of January of this year—that is to say, fifteen months after the operation—there was no evidence of recurrence and he was in the enjoyment of perfect health.

CASE 7 (*No. 112, Table III.*). *Epithelioma of the base of the tongue and the epiglottis; a few small glands in the neck.*—A man aged sixty years was brought to me by Dr. C. A. Parker on Nov. 20th, 1894. The history of the case was that for about six months the patient had noticed pain in swallowing, and lately had had neuralgic pains extending up to the ear. When we saw him together a small mass of enlarged glands was felt at the angle of the jaw on the left side and at the cornu of the hyoid bone, but on looking into the mouth nothing could be made out there without the aid of a mirror. On using the mirror, however, a superficially ulcerated surface was seen at the base of the tongue, especially on the left side, and extending into the hollow between the tongue and the epiglottis, partially filling it up. The epiglottis was also thickened and ulcerated on its anterior surface, but the larynx was free. On Nov. 28th, 1894, I performed the following operation:—I began by a preliminary tracheotomy and inserting a Hahn's tube. A long incision was then made along the line of the vessels and another nearly at right angles to it along the upper border of the hyoid bone. The glands were then removed, the external carotid artery tied, and the pharynx opened at the level of the cornu of the hyoid bone. In order to get a good view of and free access to the base of the tongue and the epiglottis it was necessary to clip away the cornu of the hyoid bone; but when this was done excellent access was obtained to the parts. The superior laryngeal nerve was not divided. The epiglottis was then detached from its attachment in the angle of the thyroid cartilage, but was left attached to the tongue. A transverse incision was then made completely across the tongue, well away from the disease, and the posterior part, together with the epiglottis, was taken away. Some bleeding vessels having been tied on the opposite side of the tongue the external wound was

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stitched up, a drainage-tube being inserted at the lower angle. The only point of note in connexion with the after progress of the case was that the patient had an attack of bronchitis, to which he was very subject, and which began the day after the operation. For two or three days this gave rise to considerable anxiety, but it soon passed off, and otherwise his recovery was uninterrupted. He was fed for four days by rectal enemata and nutrient suppositories, and then he began to try to swallow some milk in addition. This he did not manage at all well, even with his head on one side, for about a fortnight, and then he gradually improved and was able in another week to take the necessary quantity of food entirely by the mouth. As regards the mouth and anterior triangle of the neck the patient still remains well, there has been no recurrence in either situation, the functional result is excellent, he is able to swallow without difficulty, and only extremely rarely does he have a fit of coughing while doing so, and he is in excellent health at the present time, fifteen months after the operation. In July of last year, however, I noticed an enlarged gland under the middle of the sterno-mastoid muscle on the left side, which increased in size somewhat rapidly. I cut down behind the sterno-mastoid and exposed the growth, and removed it along with a portion of the jugular vein, to which it was somewhat adherent, and with all the fat and glands that I could find in the neighbourhood and in the posterior triangle. While removing it it gave way at one part, and some fluid containing flakes of epithelium escaped into the wound. I washed the wound out with sublimate, and then sponged the whole surface of the wound thoroughly with undiluted carbolic acid. The wound healed by first intention except where the drainage-tube was, which I had put in on account of the application of carbolic acid; but this also healed in a very few days, the application of the acid not apparently interfering with the healing at all. For two days, however, he showed considerable signs of carbolic acid poisoning, curiously enough the first occasion on which I have seen evidence of carbolic acid poisoning after the application of undiluted carbolic acid to a raw surface. At the end of December of last year he showed me a small gland on the right side of the neck opposite the right cornu of the hyoid bone, which had increased somewhat in s ze of late. I, therefore, removed this gland along with the material in the neighbourhood, and found on microscopical examination that it also was epitheliomatous. The wound healed by first intention, and the patient remains without any further appearance of disease, now about fifteen months since the first operation. You may naturally inquire why I applied undiluted carbolic acid to the wound in the neck in the second operation. My action was founded on my experience in the following case. Some years ago I had removed the whole tongue for an extensive epithelioma along with glands in the upper part of one anterior triangle. The mouth remained well, but the patient returned with rapid enlargement of the glands beneath the sterno-mastoid on both sides of the neck, and, as we all know, the very rapid enlargement of epitheliomatous glands means a cystic condition from degeneration of the rapidly growing cancer cells. In this instance I thought it worth while giving the patient another chance, and I did a most extensive operation on both sides of the neck, removing most of the structures of the neck. Unfortunately on one side, while the mass was being taken away the cyst burst and the fluid, containing flakes of epithelium, poured into the wound. I washed and sponged it out as thoroughly as I could, but, although the other side healed perfectly, that on which this accident happened became brawny and thick all over; in fact, there was a diffuse epitheliomatous infiltration of the whole wound, and there can be no doubt that the groups of epithelial cells which escaped from the ruptured gland grew in the parts of the wound in which they were deposited. In this case, therefore, I thought it well to destroy any epithelial cells which might have remained in the wound by the strong carbolic acid.

CASE 8 (*No. 38, Table III.*). *Epithelioma of the right tonsil spreading on to the tongue, floor of mouth, soft palate, and side of pharynx; a mass of glands at the angle of the jaw.*—A man aged forty-four years was admitted to King's College Hospital on June 7th, 1895. For the last few weeks the patient had noticed some hoarseness, and about a fortnight before admission he had found a swelling at the angle of the jaw. This swelling increased rapidly. On examination a large, ulcerated, warty growth was seen on the right tonsil extending on to the soft palate, pharynx, floor of mouth, and base of tongue. Within the last few days it had interfered with swallowing and to some extent with breathing. There was also pain of an intermittent character running up to the ear. The larynx and epiglottis were free. There was a mass of glands at the angle of the jaw. On June 12th, 1895, the following operation was performed:—In the first place the trachea was opened and a Hahn's tube inserted. A long incision was then made on the right side of the neck along the anterior border of the sterno-mastoid muscle, and the mass of glands with the material beneath the sterno-mastoid and the jugular vein were taken away. A second cut was then made parallel to the hyoid bone, and the sub-maxillary gland with the adherent lymphatic glands were removed. The external carotid artery was then tied. The mouth having been opened the cheek was split from the angle to the masseter muscle. Free access was then obtained to the disease in the mouth. With scissors the healthy tissue around the growth was divided, the finger in the outside wound pushing aside the carotid artery and vagus nerve and indicating the limits of the disease. The posterior half of the tongue on the right side was taken away, along with the floor of the mouth at that part, tonsil, pillars of the fauces, part of soft palate, and portion of the pharynx, the whole being removed in one mass. The wound was stuffed with cyanide gauze sprinkled with iodoform. A stomach tube having been inserted, the external wounds were stitched up, a large drainage-tube, however, being fastened into the lower angle of the cervical incision, and passing into the mouth; a fresh Hahn's tube was then put in. There was a good deal of shock after the operation, but the patient had recovered from that by the next morning, and he went on well, the temperature only twice reaching 100°. For four days the stomach tube was left in untouched, and then it was subsequently passed whenever necessary. He began to try to swallow on June 21st, but without very much success. However, this rapidly improved, and at the time of his death he was able to swallow practically all that was required in the way of nourishment. A fresh Hahn's tube was put in on the day after the operation, and on the second day an ordinary tracheotomy tube was substituted for it and kept in for two days. The drainage-tube in the neck was left out on the tenth day. The patient was doing remarkably well, and it was a question whether he should not go home, when on July 7th, twenty-five days after the operation, while he was washing out his mouth previously to taking some food, it was noticed that the material was stained with red blood. This rapidly increased in amount, and in three minutes, before assistance could reach him he was dead, the blood having apparently passed straight down his larynx and choked him. On post-mortem examination it was found that the wound was looking remarkably well, contraction had been going on rapidly, and a good deal of it had become lined with epithelium. At the lower angle there was quite a small sinus which ran down to the ligatured external carotid artery, and this ligature had become partially separated. There was no clot whatever in the artery; the lungs, trachea, &c., were full of blood. There was no sign of any recurrence, the disease apparently having been completely removed.

CASE 9 (*No. 39, Table III.*). *Epithelioma of the tonsil, soft palate, side of pharynx, and right side of the tongue; a large mass of glands in the right side of the neck.*—A man aged fifty-six years was seen in consultation with Dr. Semon and Mr. Horsley on June 28th, 1895. The history of the case was that the patient was not aware that anything serious was the matter with his throat till three weeks previously, when suddenly a quantity of blood came into his mouth along with some very foul-smelling discharge. For some time previously his throat had been uneasy, but he had not paid any attention to it. A few days before we saw him he had consulted a surgeon, who had refused operation. On examination a considerable mass of glands was felt on the right side of the neck at the upper part of the anterior triangle, evidently adherent to the vessels and extending under the sterno-mastoid muscle. On opening the mouth a projecting warty mass was seen on the right side of the throat and extending on to the tongue; it had apparently begun in the tonsil, which was deeply excavated, and thence had spread on to the neighbouring parts. Only the back part of the tongue was affected, but there the disease went pretty deeply; above it it had spread on to the palate, and behind to the side of the pharanx; the epiglottis and the larynx were free. The lower and posterior limits of the disease could be felt. The patient did not complain of any acute pain, but the ulcer was constantly bleeding and there was much foul discharge from it. The patient appeared to be a robust man, but was not so in reality; his urine contained one-eighth of albumin, and his pulse was quick and readily compressible, frequently numbering 120. From my experience of the preceding cases, especially the last, which was at that time going on extremely well, it was evident that the disease could be removed with a reasonable prospect of success, while it was clear that the patient had only a very short time to live, probably only a week or two, if nothing were done. The whole matter was therefore put before the patient, special stress being laid on the risks of the operation and chiefly, as it happened, on the danger of septic pneumonia and septic disease generally, but he expressed himself as most anxious to have the chance. On July 1st the following operation was performed, in which I had the advantage of the assistance of Mr. Horsley and Dr. Semon. In the first instance preliminary tracheotomy was done and a Hahn's tube inserted. An incision was then made along the anterior border of the sterno-mastoid muscle, and the mass of glands, which extended up to the mastoid process and under the muscle, was removed along with the jugular vein, the external carotid artery, and the digastric and stylo-hyoid muscles which were involved. The cheek was then split from the angle as far as the masseter, and the mass in the mouth was removed in one piece in the same manner as in the last case. It was then found that the internal carotid artery was involved in the growth, and was, in fact, lying almost bare on the surface of the ulcer of the tonsil, so that bleeding would almost certainly have occurred from it in a few days. As the patient was by this time suffering a good deal from shock, more so than any of the other cases, and as his pulse was very small, I feared that the removal of the diseased portion of the artery would produce so much anæmia of the brain as to preclude the chance of his recovery from the shock, and therefore I thought it wiser to peel off the tumour as far as I could from the artery and then remove it later, when he had somewhat recovered. The wound was then stitched up, the pharynx being packed with iodoform gauze, and a drainage-tube was inserted at the lowest angle. A stomach tube was also introduced. Strychnine was given before and during the operation. The Hahn's tube was removed after the operation and a Parker's tube substituted for it for twenty-four hours, when it was left out. For some hours the patient lay in a very collapsed condition, but gradually improved towards evening, and the next morning, after I took out the packing and the tracheotomy tube, he began to mend rapidly. During that day we began to feed him with the stomach tube, and he was able to sit up and wash out his mouth with sanitas at frequent intervals. He went on steadily improving, his temperature having only once been up to 100° F., till the morning of the fourth day, when he seemed quite himself again. I therefore thought that the time had come when the piece of diseased artery might be taken away with safety, and accordingly I gave him a little chloroform, and, dividing the stitches, I passed a ligature above and below the diseased area, tied the vessel, and removed the intervening portion. This was done quite easily, with almost no disturbance of the wound and no bleeding. The part exposed was then touched with undiluted carbolic acid with the view of sealing the tissues against septic infection and the stitches were reinserted. The patient passed an excellent day, but towards night he began to cough and had much difficulty in bringing up a quantity of tenacious mucus, his temperature began rapidly to go up, and signs of septic pneumonia set in, of which he died on the morning of the sixth day after the operation. It was noticed also on the fifth day that there was paresis of the leg and arm on the left side, and it is possible that this condition, which was no doubt the result of the ligature of the internal carotid artery, may have considerably contributed to the fatal result. The occurrence of septic pneumonia after all operations in the throat is, of course, very common, quite apart from the severity of the operation, and it so happened that it was a danger to which I specially called attention before the patient decided on the operation, and the only question which exercises me is whether the interference on the fourth day led to it or whether it would have occurred in any case; and also how far the paralysis which followed the ligature of the artery had to do with the fatal result. I do not think that it would have been wise to have left the diseased portion of artery in the wound for a longer time, and the disturbance caused by its removal was extremely slight and I can hardly think that the infection occurred at that time. At the same time it is a perfectly open question whether it would not have been wiser to have risked taking the artery away at the time of the operation.

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CASE 10 (*No. 40, Table III.*). *Epithelioma of the right tonsil, floor of the mouth, base of tongue, pillars of the fauces, soft palate, and side of pharynx; glands in the neck.*—A man aged fifty-five years was sent to me by Dr. Harvey and admitted to King's College Hospital on July 22nd, 1895. The first thing that the patient noticed was the swelling of the glands in the neck about two months before admission, and about that time he also had shooting pain about the base of the tongue. About a month before admission he first observed a growth on his tongue. The patient was old for his age and was not a very strong man, but had no organic disease of any kind. His only complaint was of intermittent shooting pain, inability to move his tongue properly, and frequent presence of blood in his mouth. On examination the glands in the anterior triangle were found to be considerably enlarged, more especially towards the angle of the jaw, but also extending as low as the thyroid cartilage. On examining the mouth a large cauliflower growth was seen at the back of the right side of the tongue, which extended on to the floor of the mouth, the right tonsil, and the adjacent part of the soft palate. Its further extent could not be made out on account of difficulty in opening his mouth till he was under an anæsthetic, when it was found to extend some distance on to the side of the pharynx. The entrance to the larynx and the epiglottis were apparently free. On July 24th, 1895, the glands and the neighbouring tissues were dissected out from the anterior triangle, but it was not found necessary to remove the internal jugular vein; the posterior belly of the digastric, however, was found attached to the growth and was taken away. A ligature was put round the external carotid artery, but was not tied, and the wound was stitched up. Owing to his condition I thought it advisable to defer the completion of the operation for a week. The wound healed by first intention except where the ligature was, and on July 31st, 1895, the second part of the operation was proceeded with. In the first instance the trachea was opened and a Hahn's tube inserted, the greater part of the former incision was re-opened, and the ligature which was lying around the external carotid artery was tied. The incision was then extended forwards under the angle of the jaw, and the sub-maxillary gland, which had not been removed in the previous operation, was taken away. The cheek was then split and half of the tongue freed right down to the hyoid bone, and removed along with the rest of the growth in one piece. A large drainage-tube was inserted, the wound was packed with cyanide gauze sprinkled with iodoform, and a tube passed into the stomach. The rest of the incision was then stitched up. The patient did not have any very marked collapse and passed a very good night afterwards. The next morning, however, it was evident that his mind was deranged and he was most difficult to manage both as to feeding and in other ways; and I may here say that from this time till the end of the case he never recovered his reason. As he had pulled out the œsophageal tube during the first night it was passed whenever it was necessary to feed him, but he struggled very much against it and it had to be done by force. Apart from his mental condition he went on very well for some days, but there was more septic decomposition about the wound than had occurred after any of the other operations. Still, his temperature remained normal till the eighth day, when it became somewhat irregular, going up to about 101°F. in the evening and falling in the morning. The tracheotomy tube was left out on the day after the operation. On the twelfth day (August 11th) he coughed up a little blood, and a little was seen to be oozing from the wound. Pressure was applied to the carotid and the bleeding ceased, the amount of blood lost being estimated to have been about half an ounce. I was sent for, but, being out of town, one of my colleagues arrived two hours after the bleeding ceased and he at once tied the common carotid artery low down in the neck, thinking that probably the blood had come from the external carotid artery. Next day it was noticed that there was paresis of the left arm and leg, and this had developed by the following day into complete hemiplegia. On August 14th, there was a repetition of the bleeding which had occurred on August 11th, and when I opened up the wound I found that it simply came from the granulations, and it did not again recur. His condition from this time onwards was a very bad one. He was completely deranged and very difficult to deal with, would not open his mouth, and could not understand what he was told to do. His left side was completely paralysed, including the left side of his pharynx, while we had removed the right side; consequently he could not swallow, and the saliva, mucus, and discharges accumulated in the wound in spite of all that we could do to prevent it, and no doubt passed down into his lungs. His temperature continued to go up and he had a good deal of cough. He continued very much in this condition, gradually going downhill till Aug. 31st, when he died, a month after the operation. On post-mortem examination gangrene of the upper lobe of the right lung was found, with a considerable quantity of pus lying in it. There was white softening of the anterior part of the right cerebral hemisphere as far back as the fissure of Rolando. There was no clot in the carotid artery. My own experience of post-operation mania, of which I have seen five or six cases, is very bad, and I think that, as a rule, the patients die, and I believe this is the experience of other surgeons. At the same time the case furnishes a very instructive warning, especially when taken in connexion with Case 9 and several cases which will be found in Table III. Ligature of the internal or common carotid artery after operation on the throat has been followed by hemiplegia, showing us that such a procedure is accompanied by the very greatest risk, and should only be done in the absence of any other possible method of meeting the circumstances of the case. Against this statement may be instanced the fact that in the next case (Case 12) I ligatured the internal carotid artery for hæmorrhage without any such result, but in that instance the artery had been compressed in the midst of cicatricial tissue for some months and was very much diminished in calibre, and by that time no doubt the cerebral circulation had sufficiently adapted itself to the small amount of blood brought by it, and its ligature did not produce any serious effect.

CASE 11 (*No. 84, Table III.*). *Epithelioma of the left tonsil, pillars of the fauces, and soft palate, spreading on to and involving the lower jaw at the posterior part; a mass of glands in the anterior triangle of the neck.*—A man aged fifty-five years was sent to me by Dr. Harvey and admitted to King's College Hospital on July 15th, 1895. The patient first noticed tenderness in his throat and gums about six weeks before admission, and very shortly afterwards a swelling appeared in the neck. Thinking that the trouble was due to a bad tooth one was extracted, but without any good result. There was a mass of considerable size at the posterior part of the left anterior triangle and extending under the sterno-mastoid; this mass was very fixed. On looking into the mouth, an ulcer with hard edges and warty surface was seen on the left tonsil, reaching and firmly adherent to the alveolar border of the lower jaw, spreading into the soft palate, and to a slight extent to the gum of the upper jaw; it also reached the floor of the mouth, but had not yet affected the tongue. The patient was said to be addicted to drink, but the various organs were healthy. As the disease was extensive and the patient somewhat weak, and as I also had to leave town for a few days, I thought it would be better to divide the operation into two stages, removing the glandular mass in the first instance and then subsequently the disease in the mouth. Accordingly, on July 16th, 1895, I made a vertical incision over the glands and removed them along with the structures which they involved—namely, the internal jugular vein, the external carotid artery and its upper branches, the hypoglossal nerve, the digastric and stylo-hyoid muscles, and all the fat and glands under the sterno-mastoid muscle. As the wound was an aseptic one I had no anxiety about the matter and the patient had no bad symptom. On July 24th I proceeded to the second part of the operation—viz., the removal of the mass in the throat. After performing tracheotomy the upper part of the first incision, which had healed, was opened up and a fresh cut was carried forward from it in a curved manner over the sub-maxillary region, and the sub-maxillary gland, with some enlarged lymphatic glands adherent to it, was removed. This flap of skin, together with the masseter muscle, was then turned upwards and the jaw sawn through in front of and behind the affected part. The interior of the throat could now be well seen, and an incision was made around the growth and it was removed, the pterygoid process being clipped off and taken along with the mass. As a week had elapsed since the ligature of the external carotid artery I was very much afraid that anastomotic circulation would have been re-established in the part and that there would be great trouble from oozing. To my surprise, with the exception of the skin incision, which bled pretty freely, there was no more bleeding from the deeper parts than if the external carotid artery had just been tied. The wound was packed with cyanide gauze powdered with iodoform, and the greater part of the skin incision was stitched up, room being left at the lower part for the subsequent insertion of a drainage-tube. The patient went on very well without any febrile symptoms, and he was fed for about a fortnight with the stomach tube, passed when necessary. At the end of that time he began to swallow and was soon able to take sufficient fluid nourishment. He was discharged towards the end of August in very good health. In the beginning of October, however, it was found that there was an excavated ulcer in the middle of the scar opposite the part where the angle of the jaw had previously been. Examination of scrapings from the interior of the ulcer showed numerous epithelial cells, and its margins were hard. It was, therefore, evidently a recurrence. The patient was accordingly readmitted to the hospital on Oct. 7th.

CASE 12 (*No. 62, Table III.*). *Second operation.*—His condition on admission was that he had this hard nodule in the mouth, and the greater part of it was ulcerated. On Oct. 9th, 1895, the following operation was performed. A curved incision was made from just in front of the ear forwards for about four inches, following the anterior border of the lower jaw. A considerable portion of skin above this incision, which was somewhat adherent, was removed. The cheek was split from the angle of the mouth to meet the former incision, and the whole of the upper part was dissected up, the edges of the wound being well separated, when the recurrence was seen to be much more extensive than was supposed. It involved the masseter and internal pterygoid muscles, and also the ascending ramus of the lower jaw. This portion of the jaw was disarticulated and removed, and the whole of the masseter and internal pterygoid muscles, part of the pterygoid plates, and as much of the scar-tissue as possible was taken away. As I was not quite certain with regard to the scar tissue whether I had quite got all the disease I applied nitric acid to the raw surface; the wound was stuffed, a large gap being left; no attempt at a plastic operation was at that time made. No tracheotomy was performed. The patient was a good deal collapsed after the operation, but recovered and went on very well till the ninth day, when bleeding occurred from the wound, and on investigation it was seen to come from the internal carotid artery, which was lying free on the surface of the wound. The artery was tied above and below and divided. No symptoms of paralysis followed the ligature of the artery and the patient went on very well. He was fed with a stomach-tube, it being impossible for him to swallow on account of the large opening in his cheek. The greater part of the wound having healed, the hole in the cheek was filled up by a plastic operation on Nov. 20th, 1895, the edges being pared and a large flap of skin being brought over from the back of the neck. In three or four days he was able to swallow very well, and he was discharged on Dec. 11th.

MATRONS' COUNCIL.—The second of a series of demonstrations on nursing will be held in the Medical Society's rooms, Chandos-street, Cavendish-square, on Thursday, Feb. 27th, at 8.30 P.M.

BRISTOL MEDICO-CHIRURGICAL SOCIETY.—The fifth meeting of the session was held on Feb. 12th in the Medical Library of University College, Dr. A. J. Harrison in the chair.—Dr. Shingleton Smith showed a patient with Chronic Chorea of twenty years' duration, with great Muscular Hypertrophy.—Dr. Waldo and Dr. Michell Clarke spoke on the case.—Dr. Shingleton Smith also showed a case of well-marked Diffuse Scleriasis.—Dr. Rogers and Dr. Waldo spoke on the subject.—Dr. Michell Clarke showed a case of Locomotor Ataxy in a young man; and also a patient with Cirrhosis of the Lung with Bronchiectases, treated by intra-tracheal injections.—Dr. W. C. Swayne read a paper on a case of Absence of Uterus, and on a case of Uterus Bicornis. Dr. Harrison, Dr. J. G. Swayne, and Dr. Aust Lawrence spoke on the cases.—Dr. A. J. Harrison read a paper on a case of Malignant Disease of the Transverse Colon, with Secondary Deposits in the Liver

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Clinical Remarks

ON

DIVISION OF THE VAS DEFERENS IN CASES OF OBSTRUCTIVE PROSTATIC HYPERTROPHY.

Delivered at St. Peter's Hospital on Jan. 3rd, 1896,

BY REGINALD HARRISON, F.R.C.S. ENG.,
SURGEON TO THE HOSPITAL.

GENTLEMEN,—I shall confine my remarks to division of the vas deferens as a remedy for enlarged prostate. In 1893 Dr. W. White of Philadelphia suggested that castration might be tried as a remedy for troubles connected with certain forms of prostatic hypertrophy, with the result that this practice has now been adopted in numerous instances with some amount of success. It is interesting to notice, now that attention has been called to the possibility of its practical application, how often the fact has been stated in surgical literature that interference with portions of the genito-urinary tract is followed by atrophy of the prostate. Only the other day, in reading an excellent treatise on this organ by Dr. Decimus Hodgson (published by Messrs. Churchill in 1856), I notice that it is observed: "In persons who have been castrated the prostate dwindles down almost to a rudimentary condition."

At an early period in this investigation it seemed to me that without resorting to such extremes as the removal of both or even one of the testes good results might probably be obtained at far less risk by the simple expedient of division of the vasa. Apart from a casual case of this kind, which came under my care some years ago and has since been reported,[1] and in which I practised this expedient, there is collateral testimony in favour of it. If we turn to records of injuries to the vas deferens it will be found that Birkett. Hilton, and others have shown[2] that atrophy of the testis is a sequence in the human male of rupture or section of this duct. If this is so, why should we not take advantage of it and in this way induce prostatic atrophy without resorting to castration? It is probable that in a certain number of prostatic cases the amount of shrinkage of the gland necessary to make all the difference between a life of misery and one of comfort is comparatively slight. This is a conclusion which may fairly be drawn from the observation that, although prostatic enlargement is common, only a small number of males thus affected can be said to suffer from it. I am disposed to think, from what I have already seen, that division of one vas or both vasa is capable of providing in many instances the relief that is thus desired. Then there is the further consideration that, if the minor proceeding fails, castration may still be resorted to without prejudice. There can be no doubt that in elderly men the latter operation often proves to be a very serious matter.

I will now proceed to mention certain effects noted as having followed division of one vas or both vasa in the human species. In the first place, some change in the size or consistence of the testis in the way of shrinking or softening has generally been evident in the course of a few days. Following upon this, analogous alterations have been discovered by rectal examination as taking place in the prostate, corresponding, of course, to whether one vas or both vasa were divided. In others the latter changes have been inferred more by the easier introduction of the catheter which followed, or, as some patients remarked, by the lesser distance the instrument had to traverse the urethra before urine flowed, than by recognisable structural alterations. I have also noted that the intervals between urinations become rapidly more prolonged; in some instances periods of two and three hours have been doubled. Further, the easier passage of instruments into the bladder which has generally followed has reduced liability both to hæmorrhages and cystitis. Hence urine which previously was discoloured, cystitic, and offensive became gradually normal both in appearance and composition. Prostatic spasm has also been noted as ceasing. Some of these effects are probably directly due to a diminished blood current through the prostate following upon the operation. I cannot say that I have yet met with an instance where a patient who has long been habituated from prostatic enlargement to the use of the catheter has been able entirely to discard it, though, as already stated, the application of the instrument may subsequently have ceased to be a cause of distress. I believe, also, that where the bladder has been pouched, as is so frequently the case in instances of enlarged prostate, removal of the urine with the catheter has been more completely accomplished. For the same reason irrigation of the bladder, when necessary, has been more effectually practised. I think that these results have followed the division of the vasa, not by the inducement of a complete atrophy of the prostate, but of a degree and kind sufficient for the purpose.

In explaining the somewhat varied effects following this and kindred operations on the genito-urinary tract it must be remembered that the enlarged prostates of elderly men vary considerably in their structure and consistence. Putting aside instances of carcinomatous, tuberculous, and such-like glands where these operations are inappropriate, it will be found that where muscular tissue predominates greater good may be expected and usually follows than where these proportions are reversed and the part is reduced to a condition allied with a fibroma. However, as it is not always easy to accurately determine these structural differences beforehand, the greater is the reason why a tentative measure should, in case of doubt, be first undertaken. Pedunculated fibromatous prostates causing obstruction and cystitis will probably still be best treated by supra-pubic prostatectomy. The effects that follow division of the vasa relatively to the genital function may be stated as being in general correspondence with those which are observed after castration. A unilateral operation leaves this function much in the same state as previously existed, whilst the severance of both tubes may be said to be likely to abolish it. The most perfect example of unilateral testicular atrophy I ever saw followed rapidly upon the accidental division of the corresponding vas deferens in an operation for varicocele. As the subject of this accident is now the father of several healthy children it does not appear that the procreative process in this instance suffered very materially.

I will now pass on to describe the method I employ in the division of the vas deferens and to illustrate clinically its application. After trying several plans for dividing the vas after passing through the external abdominal ring subcutaneous and otherwise, the following appears to be the best. The scrotum having been shaved and prepared antiseptically, the tube is carefully sought for as it enters the scrotum. It being held subcutaneously in position between the finger and the thumb, a vertical incision through the skin is made over it to the extent of an inch or so. The spermatic cord having been recognised, the vas is separated from the other constituents by the finger and forceps by merely carefully teasing away the connective tissue about it. In doing this care should be taken not to drag on the testicle too much, but to support it whilst a loop of vas is detached, so that the connexions of the former may not be loosened. The vas should be well cleared of all other textures, and then a loop of it is gently drawn out through the wound with a blunt hook. The loop is then encircled below the hook with a silk ligature, not too thick, which is tightly knotted. The ligature is cut off short, the extraneous portion of vas removed by scissors, and the pedicle dropped into its place. The wound is closed with a catgut suture or two, and fitted with a small drainage-tube. There is no bleeding worth mentioning if the operation is done in this way, and the wound usually heals in the course of a few days. I have reasons for believing that in a short time the vas, thus treated, becomes converted into a fibrous cord, which eventually, with the corresponding testicle, undergoes atrophy. If the vas, before the ligature is applied, is carefully cleared of other tissues pain is not usually complained of, as is often the case when the whole thickness of the spermatic cord is included in a ligature, as is sometimes done in cases of castration. Both vasa may be so treated simultaneously, but I prefer doing one at a time, and then, if the object is not sufficiently attained, proceeding subsequently with the other. It will be found that, so far as the technique of the operation is concerned relative to the general condition of an enfeebled patient, it compares favourably with either single or double castration. If anticipations are realised, as seems likely to be the case, unilateral or even bilateral division of the vasa will be

[1] Brit. Med. Jour., Sept. 23rd, 1893.
[2] Holmes's System of Surgery, first edition, vol. ii.

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resorted to at an earlier period of the disorder than would be the case if ablation of the testicles was the only alternative. The possibility of dilatation and atrophy of the kidneys arising out of frequent and obstructed micturition, as indicated by changes in the urine, would be sufficient to require this should other measures fail in relieving such symptoms as hypertrophy of the prostate not infrequently occasions.

I will now briefly refer to two cases illustrative of some of these remarks. The first is that of a man aged seventy-three whom I saw in October, 1894, who had a very large prostate and an irritable bladder, and was almost entirely dependent on the use of the catheter. The frequency in passing urine increased, and the latter became very foul and ammoniacal. In the course of a few weeks phosphatic concretion took place, and I removed some stone with the lithotrite. Relief followed this, and the sound showed that the bladder was apparently clear. In the course of weeks the old prostatic symptoms returned with greater severity, and the catheter was again resorted to about every hour both day and night. In October, 1895, it was again necessary to clear the bladder by the lithotrite of encasing phosphates, and at the same time, after explaining matters to him, I took the opportunity of dividing the left vas in the manner described. He was in a surgical institution whilst this was done, and able to return home on the seventh day. I have seen him since, and the constrast between his condition now as compared with what it was prior to the latter proceeding is most marked. The testis and prostate are both undergoing atrophy, his catheter enters without provoking spasm and quite easily, and, as he remarks, "I reach urine sooner by an inch than I did previously." He is able to hold his urine comfortably for five or six hours and can spontaneously expel more than he previously did. Further, his urine is perfectly clear, with a normally acid reaction, a condition which had never been previously arrived at since I have known him.

The second case is one you saw me operate upon a month ago, and as, so far as I can judge, no stone or other complicating condition exists, you can form a fair opinion as to the more immediate effects of this operation so far as the prostate alone is concerned. I took the patient into hospital for the reason that the frequency of his micturition was about every two hours both day and night, or even oftener, according to his statement, under which irritation his general health not unnaturally was giving way. He had a large prostate with the left lobe predominating, but he was not dependent on the catheter. Having explained the matter to him, Mr. W. Braine administered ether, and I divided the left vas in the manner described. I should mention that this patient is seventy-two years of age. He has already derived advantage in respect of the symptoms complained of, and the case is one which may be watched with advantage. Whatever explanation may be offered, within a week after the operation the patient was able to retain his urine for the whole night. He left the hospital on the tenth day and has since reported himself as well.

In the opinion I have formed as to the utility and propriety of dividing the vas in cases coming under this category I do not stand alone, and unless I am mistaken I anticipate that further evidence in support of it will soon be forthcoming. The literature, however, will already be found to confirm some of the conclusions I have thus ventured to formulate. Too much importance must not be attached to some experiments on animals which have been made in connexion with this subject. The moral influence of certain conditions and the material changes they give rise to, so far as they relate to the genital function in the human male, find no counterpart in the animal species so far as I have been able to ascertain. In offering these remarks on this aspect of a most important subject I do so in the belief that the case as I have endeavoured to put it, though not fully proven, has been sufficiently made out by direct and indirect investigation as to warrant a fair trial being made of it before we adopt castration as a remedy for prostatic hypertrophy and certain of the troubles arising out of it.

In a paper I have read since these remarks were made Professor Guyon of Paris [3] has added important testimony in favour of this proceeding. He publishes the particulars of two cases of bilateral division of the vasa in men seventy years of age or thereabout where the benefits obtained were prompt and conspicuous, and in correspondence with effects I have already noted. The paper contains a brief history and other experiences of the operation, and is deserving of careful study.

[3] Congrès de Chirurgie, Paris, 1885.

VITALITY.

By LIONEL S. BEALE, M.B., F.R.C.P. LOND., F.R.S.,
PHYSICIAN TO KING'S COLLEGE HOSPITAL; JOINT PROFESSOR OF MEDICINE IN KING'S COLLEGE; AND GOVERNMENT MEDICAL REFEREE FOR ENGLAND.

ALL who have considered the question of the probable nature of vitality, and the essential points by which the living has ever been distinguished from the non-living, must have been struck by the fact of the comparatively small proportion of the matter of the world capable of assuming the living state. The matter of our globe that never has lived and that never can live—never can form part of any form of living organism of which we have knowledge or experience—is enormous in amount; and when we think of the very small dimensions of our globe as compared with those of the non-living matter of the universe we can scarcely wonder at the exalted views which have been entertained by some scientific men concerning the enormous importance of matter, or at the conclusion that from matter and its properties life itself has been evolved.

Of the very small amount of matter which forms the bodies of all existing living organisms, how large a proportion has already entered into the composition of the countless living organisms by which the surface of the globe has been successively peopled in past ages. Indeed, the very same matter has lived and died over and over again, as generation has succeeded generation since the first beginning of life, and these same material atoms will be taken up, will live and die and be appropriated again and again by the living things which are to succeed. The circumstances under which a few eternal indestructible atoms are selected, and form the bodies of living organisms and become grouped and arranged so as to form chemical compounds, with special properties and tissues possessing wonderful endowments, have been studied with the greatest care by hundreds of skilled investigators, in the hope that the cause of particular chemical combinations and the precise mode of production of special structures would be revealed. Many theories to account for the facts have been advanced, not a few of which have met with warm approval and have for a time been generally accepted as true, but, nevertheless, have soon been proved to be inadequate and have been replaced by speculations equally unsatisfactory. The doctrine which has been pressed with greatest confidence of late years, and which, therefore, has been most popular, assumes that every one of the multitudes of different living forms, past and present, is to be attributed to the properties of the material atoms of which its body is composed and the influence of certain external conditions—varying in different cases, and perhaps determining certain variations in the form, structure, and composition of the organisms to follow. But all the physical doctrines of life yet advanced repose on promises or prophecies or what has been called the tendency of thought. Though not now resting upon facts the truth, it is said, will be proved some day; but so far from any real advance having been made in this direction there is no probability of the fulfilment of any prophecy regarding any mechanical view of life. Such doctrines have been before the public in their revived form for forty years or more, but they still rest on authority only, while facts and reason are opposed to their acceptance.

With the permission of the Editors of THE LANCET I propose to bring under the notice of the profession in a few short papers some facts and arguments concerning the general phenomena common to all life, which, as it seems to me, ought to be fully considered before any hypothesis is accepted as an explanation of the phenomena of living things on the ground that they are one with the non-living. Such views have, indeed, exerted a wide influence for many years past, but though they have received very influential support they are still enveloped by the mists of conjectural science. In every part of the world are persons much interested in this question who are by no means satisfied with the views generally entertained and taught, and among them are some who have grown old in universal physico-chemical belief, but are just now beginning to discern and

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acknowledge some mystery in the changes characteristic of life. It is to be hoped that the acknowledgment of mystery will not lead to increasing obscurity.

I am particularly desirous of directing attention to the question of vitality just now because during the past year there have been indications of a change of opinion, and the prospect of obtaining a patient hearing is better than it has been for thirty or forty years. The spread of bacteriological investigation is familiarising an increasing number of observers with the use of high magnifying powers and methods of preparation of great importance in the higher branches of histological research; and there are many members of the profession and advanced students who are eminently qualified to judge of the facts and arguments advanced concerning the important question of the nature of vitality and to form a correct estimate of the bearing of observed facts of nature in health and disease upon the question.

I shall have to consider the probable nature of those wonderful changes which take place when lifeless nutrient matter or some of its constituent particles come into contact with matter that already lives, the nature of the new powers communicated to it, and the manner in which these new powers are transferred. Although our knowledge concerning these matters is at present imperfect I hope to show that we are able to penetrate more deeply into the mystery than anyone studying our most advanced works on biology would be led to suppose was at this time possible. Unfortunately many authorities whose doctrines have long influenced general opinion continue to repeat in most confident language statements made long ago in favour of mechanical hypotheses without adducing fresh facts or advancing new arguments.

The question of the nature of the power or endowment which establishes a sharp line of distinction between every form of living matter and every kind of matter in any other state or condition known to us, as well as all energies, forces, powers, or agencies whatever, is of absorbing interest. No physiological action, and no pathological change in nature, occurs which is not closely connected with, or directly or indirectly consequent upon, vital action of living matter. From the first movement of the matter of the living germ to the last moment of living existence—from the first slight departure of living matter from its normal condition to the establishment of morbid changes which must be fatal, the influence of vital change is paramount and is distinct from every accompanying physical and chemical action yet discovered. So fundamental are the differences between vital and physical processes that it may be safely said there is no analogy between them. The difference is not one of degree or relation, but it is essential and absolute.

To attempt to determine the nature of mind, thought, or will without in the first place determining the nature of vitality seems useless. For in all cases vitality exists long before there is evidence of any process that can be properly called mental, and certainly vitality exists in a multitude of cases in which mind is absent at every period of life, and all living beings may live for a time and die without the manifestation of mental action. Mental operations may cease although vital actions continued to be performed, but of mental action without living matter we have no knowledge. In the absence of vitality mind cannot be.

The rate at which vital actions are performed is not uniform, but varies greatly in different cases and under different conditions. The influence of all our remedial measures adopted in departures from the healthy state is due to changes brought about in processes dependent upon vital actions. We are able to facilitate or retard vital actions in some cases and to modify, check, or stop them—to reduce them when too active and to increase them when proceeding too slowly. Some of our most certain and valuable remedies act upon certain forms of living matter in the organism, while on other forms they exert no influence, and it is remarkable that of certain substances which have a very decided action upon certain forms of living matter in the human subject an overdose becomes a poison, stops vital action altogether; and yet may have no action upon the corresponding living matter of some of the lower animals, and may even be taken with impunity or perhaps constitute a harmless food. In some cases by encouraging increased action in one or more kinds of living matter in certain tissues or organs we may reduce to its normal degree exaggerated action tending to derange, damage, or destroy some more important tissue or organ near to or distant from the seat of our treatment. The recognition of this principle enables us to be of service in the treatment of many forms of inflammation and fever, and even in certain forms of morbid growths.

(To be continued.)

FATAL PULMONARY APOPLEXY (PROBABLY EMBOLIC) IN AN APPARENTLY HEALTHY GIRL AGED FOURTEEN YEARS.

BY W. PASTEUR, M.D., F.R.C.P. LOND.,
ASSISTANT PHYSICIAN TO THE MIDDLESEX HOSPITAL.

THE following case, which came under my care in June, 1895, in consultation with Dr. Marriott of Sevenoaks, presents several features of interest.

I happened to be well acquainted with the previous history of the patient, having known her from early childhood. With the exception of the usual childish ailments and of one severe illness at eleven years of age she had always enjoyed good health. Her powers of physical endurance, however, were perhaps somewhat less than her sturdy build would have led one to expect. She was healthy looking and had unusually bright colouring, a feature common to several members of her father's family. When eleven years old she had whooping-cough in the wake of influenza, which was complicated by extensive broncho-pneumonia of both lungs; the attack gradually subsided after a very critical week, during which the degree of cyanosis of the face was very unusual. She made an apparently complete recovery and resumed all her usual occupations, including violin playing, to which she devoted two or more hours a day. At this date her heart showed no indications of disease. Her last illness began quite suddenly on June 16th, as she was returning home from a two-mile walk, just after the termination of a perfectly normal "period." She was seized with breathlessness and had to be helped home. She was at once put to bed, but had to be propped with pillows into the sitting posture to enable her to breathe. In this position she was fairly comfortable and felt better next day, when first seen by Dr. Marriott, who promptly recognised the gravity of the case. When I saw her on the evening of the 18th her condition was as follows. She had orthopnœa, an anxious face, and rather quick, panting respiration, chiefly upper costal. A deep-red flush was on each cheek and a dusky pallor elsewhere. The eyes looked very large and bright. She made short, whispered replies to questions. There was an increased area of heart impulse, which was diffuse and undulating. The sounds were confused, but a sharp accentuated second sound was well heard at the base. No murmurs were made out. The pulse was running and uncountable. She had very troublesome sickness after all food or drink. She was ordered one-eighth of a grain of morphine under the skin, also hypodermic injections of strychnine and ether. On the 19th her condition remained unchanged. Morphine was ordered to be repeated if the restlessness increased and nutrient enemas. On the 20th her condition remained about the same. On the day preceding and on this day numerous moist crepitations were heard in the right axilla without obvious dulness. The breath sounds were loud at the apices. The back was not examined owing to the patient's condition. The cardiac dulness had decidedly increased and reached fully one inch beyond the right edge of the sternum. The pulse was a shade better in quality than the day previous. The heart was still churning. On one or two occasions, including this day, I could distinguish temporary murmurs, both systolic and presystolic in time, but they were never present during many successive beats. The general condition varied. The patient had bouts of agonising dyspnœa followed by periods of exhaustion and comparative quiet with disturbed sleep. On the 21st she had a very bad night, with extreme restlessness and cyanosis; the cough was very frequent and distressing, and she expectorated about three ounces of dark blood and blood-stained mucus. She rallied towards morning and was then in much the same state as at my previous visit. The physical signs were less in front of the right axilla and the breath sounds were clearer, but signs of engorgement and œdema were now present all over the posterior portions of the lungs.

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She had been taking two-minim doses of tincture of digitalis in iced water with a few drops of brandy every half hour since the previous day. On the 22nd she had another bad night with decided increase of delirium and awful dyspnœa and some wandering during the day. The face, if possible, was more dusky. When seen at 9 P.M. she appeared to be moribund. The breathing consisted of a succession of short jerky sighs, the hands were icy cold, and the legs cold up to the knees. The radial pulse was fluttering and barely perceptible and there was whispering delirium. She was ordered one-tenth of a grain of morphine and stimulants with local application of warmth. She slept well after this and on the 23rd had rallied surprisingly in all directions. The improvement was maintained throughout the day, but towards evening the unfavourable symptoms returned. At midnight the patient awoke from a restless sleep and asked the nurse for some water, but before this could be given her she had fallen back dead.

It is matter for regret that an account of the post-mortem appearances is not available. The grouping of symptoms, however, and the character and development of the physical signs leave little doubt as to the nature of the case—blocking in the first instance of one of the branches of the pulmonary artery in the right lung with subsequent extension of the thrombus to other branches, pulmonary apoplexy, and death from cardiac failure. The chief interest of the case lies in the occurrence of this well-known series of events in a young girl who was apparently in perfect health. A diligent inquiry into the cause of the accident has been entirely negative in its results, and we have had to fall back on the hypothesis that the seeds of the mischief had been sown during the severe illness above referred to, possibly in the form of adherent thrombi in the right cavities of the heart, one of which became detached on June 16th.

Chandos-street, W.

NOTE ON THE PICRIC ACID TEST FOR SUGAR.

BY MARK McDONALD, M.B. DUB.

WHILE carrying out some work on the urine some time since I came across certain reactions with the picric acid reduction test with which it is not generally credited. The importance which this test has acquired in the estimation, both qualitatively and quantitatively, of sugar in urine is sufficient excuse for bringing forward any points bearing on the subject.

When to a drachm of urine there are added a drachm of a saturated solution of picric acid, half a drachm of liquor potassæ, and one and a half drachms of water (as recommended by Sir George Johnson in the quantitative estimation of sugar), an orange-red colour is produced in the cold, due to the kreatinin present in the urine reducing the yellow potassium picrate to red picramate. On heating, this colour becomes more intense. Should the urine contain sugar in any quantity the effect of its presence will not be observed until the temperature reaches nearly 100° C., at which point the colouration is evidently much intensified. If, however, before heating the mixture it be largely diluted—the addition of two ounces of water produces the effect most typically as a rule—the liquid is seen to gradually darken as it is heated, until it boils. Should the urine be normal it will be observed after a few seconds' boiling that the colouration has disappeared, and prolonged boiling does not bring it back; but if the liquid be cooled the colour gradually reappears, and this reaction may be repeated with the same solution any number of times. Should the urine contain sugar in any quantity the solution as before gradually darkens as heat is applied until it boils, when the colour (due to kreatinin) disappears, but if the boiling be prolonged in this case the solution again becomes coloured. This paradoxical reaction depends on the weakness of the solution in potassium picrate. Solutions of the latter when very weak are only with great difficulty partially reduced. The picramate produced by the action of kreatinin in the cold is on boiling reoxidised to picrate; sugar, on the other hand, reduces the weak picrate solutions only on prolonged boiling. A solution of pure urinary kreatinin (prepared by Mr. S. Johnson's method) acts in a manner similar to a normal urine, more liquor potassæ being, of course, required, as Sir George Johnson pointed out. A dextrose solution on similar treatment caused reduction of the picrate only on very prolonged boiling.

It appears, then, that under certain conditions potassium picramate, when boiled in the presence of the substances by whose oxidation it has been produced from picrate, undergoes reoxidation at the expense of these oxidised bodies. The conditions necessary are weakness of the picrate solution and capability of the oxidised bodies to easily undergo reduction. The latter condition is met with in the case of kreatinin. Other substances, as for example the alkaline sulphides, though they reduce in the cold, nevertheless do not reoxidise the picramate on boiling, as the products of their oxidation are very stable bodies. Dilution of the kreatinin solution also assists the reaction. Corresponding results are obtained if, instead of diluting the solutions before boiling, they are first boiled at the usual strength and then diluted with two ounces of water. In the case of normal urines and kreatinin solutions boiling removes the colour, while with sugar and alkaline sulphides no diminution takes place however prolonged the boiling may be. It is noteworthy in all these cases that when heat is applied after dilution the liquid assumes a distinctly darker colour before the boiling point is reached, showing that in the process of dilution and cooling some reoxidation of the picramate had taken place.

If the behaviour of normal urines and kreatinin solutions, on the one hand, and saccharine urines and dextrose solutions, on the other hand, be compared, their reducing power being equal, it is found that after prolonged boiling of the diluted solutions those which contain dextrose have a distinctly darker colour. The intensity of this final colour is proportional, too, to the quantity of dextrose present. It is possible by means of the different actions of kreatinin and sugar to determine whether the reducing effect of a urine is in part due to sugar. This can usually be effected by heating the diluted solution to nearly the boiling point in a long test-tube of small diameter, and then boiling the upper half of the liquid. The colour due to kreatinin disappears, and on boiling for a minute or two the upper part of the solution again darkens if sugar is present. It is important to remember that if the diluted liquid contains less than 1 part of dextrose in 10,000 no sugar reaction takes place, since, as Sir George Johnson noticed, its effect on alkaline picrate vanishes with higher degrees of dilution. This disturbance may be obviated by adding less water, or a dilute solution of potassium picrate may be prepared by mixing a drachm of saturated picric acid solution with half a drachm of liquor potassæ and adding eight and a half drachms of water. To one drachm of this solution one drachm of a twice or four times diluted and neutralised urine is added and the mixture treated as usual. In some cases it is necessary to compare the final colouration with that given by a kreatinin solution of equal reducing power.

Though I have occasionally during the last few months found this reaction of picric acid useful in deciding a diagnosis of glycosuria, I bring it forward less as a practical test than as a warning against a possible disturbance of the usual test for sugar.

Waterloo, Liverpool.

THE DISCOVERY OF A BULLET LOST IN THE WRIST BY MEANS OF THE ROENTGEN RAYS.

BY ROBERT JONES, F.R.C.S. EDIN.,
HONORARY SURGEON TO THE ROYAL SOUTHERN HOSPITAL, LIVERPOOL;
AND
OLIVER LODGE, F.R.S.,
PROFESSOR OF PHYSICS, UNIVERSITY COLLEGE, LIVERPOOL.

A BOY aged about twelve years was brought to me by Dr. Simpson of Waterloo, Liverpool, having shot himself in the left hand just above the deep palmar arch. The wound was enlarged, but the bullet could not be found, and it was thought injudicious to prolong the search in view of the important structures in the vicinity unless one possessed a clue to its position. Professor Lodge kindly consented to take a photograph and the position of the bullet was very clearly outlined. It lies against the base of the third metacarpal bone over its articulation with the os magnum. This

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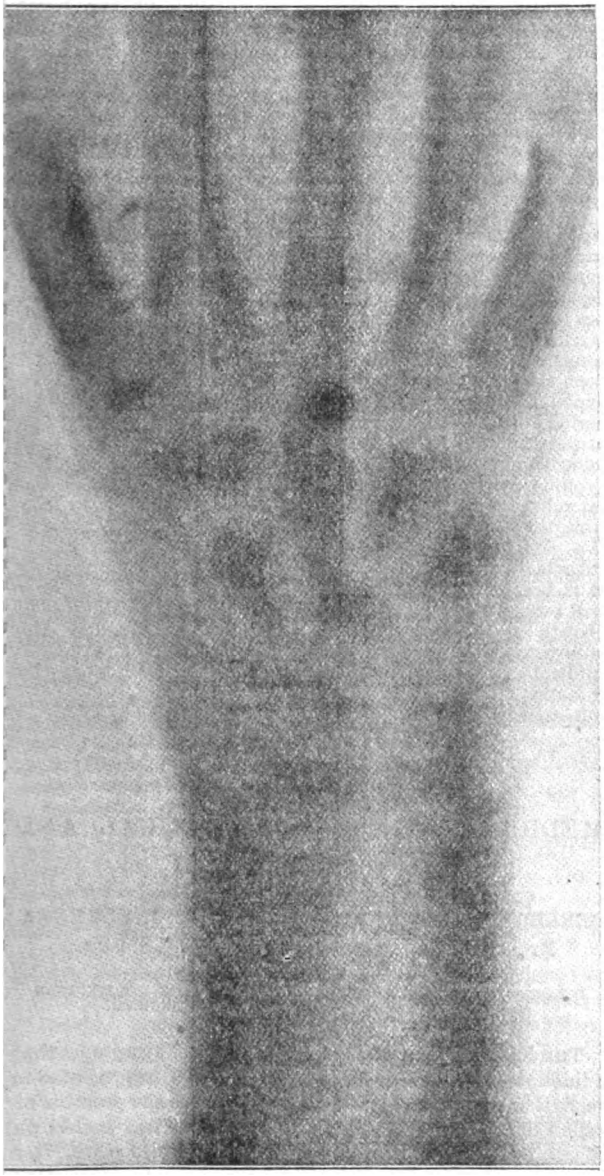
is, I think, the first photograph taken of a bullet embedded in a wrist—in this case considerably thickened as a result of inflammation. It will now be quite easy to extract it but it is thought better to await subsidence of inflammatory action. The photograph was taken in the presence of Mr. Houlgrave, who succeeded Dr. Simpson in the treatment of the case. Arrangements are being competed for fitting up a department for the employment of Roentgen's rays at the Royal Southern Hospital.

Note by Professor OLIVER LODGE.—The patient was brought to my laboratory by Mr. Robert Jones, with a pellet of lead lost in his left hand or forearm. Two



Roentgen radiograph of the left wrist of a lad aged twelve years, showing a small bullet which had been lost in it. The bullet is located between the base of the middle metacarpal bone and the os magnum. Taken by Professor Oliver Lodge, F.R.S., after two hours' exposure to a well exhausted home-made vacuum tube excited by a small ordinary coil. The sensitive plate was an Edwards's isochromatic, nine inches distant from the vacuum tube, screened from light by sheet aluminium.

preliminary short exposures to Roentgen rays indicated that the metal was not in a fleshy part readily penetrable by those rays, but was probably embedded among the bones of the wrist. The difficulty consisted in the opacity of those bones. I therefore took a tube with large electrodes made and exhausted by my assistant, Mr. E. E. Robinson, containing potash, so that its vacuum could be adjusted to the best value, and arranged a magnet to concentrate the inside cathode-rays on a definite part of the glass, which phosphoresces and acts as the source of the rays, the rays spreading from each point of the glass in all directions. The boy was comfortably seated at a table with his palm down on an aluminium-protected Edwards' isochromatic half-plate, nine inches vertically below the vacuum tube, and rather more than two hours' exposure was given. The coil used was an ordinary Ruhmkorff, giving about two inches spark at most, and it was excited by five storage cells. The vacuum was such that a one-inch spark in air was usually preferred to the tube. The result was to bring out the wrist-bones clearly and to show the position of the pellet.

Liverpool.

LATENCY IN SYPHILIS.

By ARTHUR H. WARD, F.R.C.S. ENG.,

SURGEON TO OUT-PATIENTS, LONDON LOCK HOSPITAL, AND SURGICAL REGISTRAR TO ST. GEORGE'S HOSPITAL.

IN the admirable paper read by Mr. Ernest Lane before the Royal Medical and Chirurgical Society on Dec. 10th, 1895, many cases were brought forward in proof of the fact of latency in syphilis; but neither in the paper nor in the discussion which followed was much said as to the causation of that latency which all admitted. I believe that some reasons may be brought forward to account for both the apparent and real latency of syphilis. By apparent latency I mean a period during which there are no visible lesions although the microbes are "doing their work," as Mr. Hutchinson put it, more or less actively. Real latency, however, I take to mean a period during which the microbes are absolutely inactive. In a former paper[1] I ventured to state a working hypothesis to account for the causation of syphilis and now state it thus: (1) Syphilis is associated with the growth of a microbe in the organism; (2) this microbe produces a toxine, which is the active cause of the phenomena of syphilis; and (3) this toxine when entering the human body in small and slowly increasing quantities establishes immunity. It would seem to be hardly necessary at the present time to adduce arguments in favour of the existence of such a microbe and consequent active toxine, since the microbe is generally admitted, while the activity of so many other microbes has been shown to be due to the formation of toxines. However, a somewhat striking evidence of its presence is furnished by the experiments of Straus and Tessier, who found that strong reactions occurred in cases of secondary syphilis when tuberculin injections were made; and that in a case of rupia an inflammatory areola formed round the lesions "identical with that occurring in cases of lupus" when injected.[2] It will be admitted that reaction following tuberculin injection certainly indicates the presence of the tubercle bacillus and its toxine, consequently a similar reaction in a case of syphilis indicates the presence of an analogous microbe and toxine in that disease.

The incubation period of syphilis is one of apparent latency. I think it is due to the circumstance that the microbe is a slow-growing one, as the course of the disease indicates, and also to the fact that only a few microbes can possibly be implanted at the moment of infection. Consequently these take time to grow into a colony large enough to produce an appreciable amount of toxine. Induration, the result of the chemiotaxic action of the toxine, can, therefore, not occur at once; but when a growth of three weeks or so has taken place toxine enough to attract round cells into the colony can well be formed. These cells when they have accumulated sufficiently distend the inter-cellular spaces and cause the indurated papule, which grows steadily with the peripheral growth of the colony and generally breaks down in the centre forming the indurated sore. It is to be noted that primary tuberculous inoculations also produce indurated lesions. The next period of apparent latency in the course of syphilis is the so-called second incubation period between the formation of the primary sore and the outbreak of secondaries. This period, I think, must have been in Mr. Hutchinson's mind when he spoke of microbic activity being

[1] THE LANCET, Sept. 10th, 1892. [2] Medical Week, 1893, p. 399.

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indicated by the thermometer and the presence of other symptoms while no lesions were apparent. It is impossible to believe that the primary colony can alone form toxine enough to cause the rise of temperature, anæmia, leukæmia, and bone pains seen during this period. On the contrary, I think that during the whole of this period secondary foci are continually being started by the implantation of microbes shed off from the primary focus, this being shown by the fact that when secondaries do appear the rash is polymorphous, showing lesions of varying size and acuteness. It is probable that each secondary focus starts from a single microbe which has been carried in the blood-stream and stranded in a capillary vessel. If all foci start practically equal it follows that the larger the focus and corresponding lesion the older it is, and that consequently these foci are in process of formation throughout this period of latency. If this be so, why do not the older foci develop lesions first? Why do large and small stand revealed at the same time as a polymorphous eruption? I suggest that the explanation is this. The toxine formed in these foci is the irritant which causes the lesions to appear. As long as it can diffuse freely into the blood-stream no irritation is apparent. When, however, the toxine in circulation reaches a certain degree of concentration further diffusion of toxine from the foci will be impeded, consequently the irritant will be kept hanging about the foci, causing degrees of irritation proportionate to the size of each focus, large and small alike, and the consequent lesions will be equally large or small.

The period which corresponds to the above in congenital syphilis, when the child inherits from the father, extends from the time of conception to two or three weeks after birth. In such a case the child is infected from the first, but develops well, and is born apparently healthy, the reason being that during intra-uterine life the toxine can diffuse freely into the mother's circulation (incidentally rendering her immune and so explaining Colles' law). After birth, however, the toxine will begin to accumulate and will soon, as in the adult, render further diffusion difficult, and consequently will establish an outbreak of lesions, together with general toxæmic symptoms. There is, of course, no primary incubation in such a child, as the microbes implanted on the uterine mucosa will grow into the ovum when it is quite small, and the infection be generalised from the first. The fact of the immunity conferred on the mother can be accounted for on the same lines as that produced in the horse in the preparation of diphtheria antitoxin. It seems quite fair to infer the formation of antitoxin in the one case as in the other, and a similar development of antitoxin will, I suggest, be at the bottom of the subsequent periods of latency seen in secondary syphilis. I suggest that what may well happen is something like this: the toxine tide has risen in the patient to the point of establishing secondaries; at the same time an antitoxin tide will also develop, and the phagocytes will consequently become tolerant and fall upon the microbes in the foci. These will be encapsuled, and either arrested or reduced to the spore state or destroyed. Consequently the production of toxine will largely cease, that circulating will be eliminated, the lesions will fade away, and another period of apparent latency set in. The antitoxin tide will also gradually fall, and its protecting power gradually cease, as in the immunisation of the horse. If the microbes have all been destroyed the disease will be at an end; but except in the most resistant individuals that consummation does not take place. Sooner or later the arrested microbes start growing again, the toxine tide again rises, and a further development of lesions follows; these die down in time and another period of quiescence supervenes. At each succeeding outbreak the lesions tend to become more localised till, perhaps, the palms of the hands alone are the seat of manifestations. In less favourable cases, when the individual is susceptible by nature or in any way debilitated, things are different. The periods of latency are much shorter and may be altogether suppressed. The phagocytes do not attain the power of arresting the microbic growth, outbreak follows outbreak, profound anæmia sets in, and the patient finds an early grave. An intermediate course may be imagined, however, in which a certain degree of toleration is acquired which enables the cells to seize on the microbes and reduce them to spores, and to keep them in that condition. This is the only way in which I can account for the suspension of activity for a period of, for instance, forty years. I doubt if an actual living microbe could be suspended so long and yet preserve its vitality, but no doubt its spores, which would rest in the cells like inert particles of pigment might do so. Such a condition I take to be one of real latency. As long as a living microbe exists I imagine that toxine must be formed, but of course spores would be inactive in that respect. Since gummata very frequently depend on some traumatism for their establishment the spores must be scattered throughout the organism, just waiting for a local depression of vitality to burst into growth. Once having done so toxine will again be formed, chemiotaxis again will occur, hosts of round cells will be attracted into the focus, and a gumma will result; or, in a parenchymatous organ, an infiltration will follow the distribution of the fixed fibrous tissue cells. In consequence of the immense overcrowding the gumma will probably disintegrate, while the infiltration with better blood-supply will organise. Thus I think the varying latencies of this mysterious disease may be explained. The microbes may be destroyed and the disease ended, they may cause repeated outbreaks with intervals of apparent latency, they may be reduced to spores and the disease rendered really latent, or they may be allowed to flourish and kill the patient.

Dr. Parkes Weber in an interesting paper[3] associates lardaceous disease in syphilis with chronic toxine poisoning, and describes a zone of lardaceous change surrounding gummata. He also speaks of tabes and such profound nervous degenerations as being due to the same cause and not to gummatous infiltration. I have no doubt but that he is correct. I have already touched on the early latency of congenital syphilis. The further latency between the first year and the onset of tertiary symptoms I believe to be explainable on similar lines to the corresponding adult period. It is to be remembered that the child at birth has already had the disease for nine months. The occurrence of keratitis and internal ear disease almost special to congenital syphilis can, perhaps, be thus accounted for. Since the microbes invade the ovum from the earliest stage they may well permeate the embryonic tissues more thoroughly than in the adult. Those tissues, ultimately to become extravascular and to undergo little developmental change, may thus become the resting place of spores, which here only will escape the chances of destruction which the processes of growth and development may bring; consequently the cornea, or the labyrinth alone, may suffer from syphilitic infiltration, the rest of the organism being free from the infection.

Hertford-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CEREBRAL MENINGITIS FOLLOWING INFLUENZA

BY DAVID LIVINGSTONE DAVIES, M.R.C.S. ENG., L.R.C.P. LOND.,

SURGEON TO THE FESTINIOG QUARRIES; LATE ASSISTANT MEDICAL OFFICER TO THE BOROUGH ASYLUM, NOTTINGHAM.

THE following case presented such unusual symptoms that I think it worthy of recording; and I should be glad also to learn if anything similar has been observed in the practice of others during the last influenza epidemic. I was called on March 12th, 1895, to see a young girl aged fourteen years. Her friends informed me that she had been ailing for some days with influenza. She had been taken ill whilst at school with rigors, pain in the head, and general pains in the back and limbs. When seen by me she still complained of these pains; her temperature was 103·4° F., the pulse was 114, the tongue was furred, the bowels were constipated, she had lost her appetite, and had been vomiting that day. After taking a mixture containing bicarbonate of potassium and liquor ammoniæ acetatis she improved, and by the next day the pains were much better, the temperature fell to 101°, and the pulse to 99. During the succeeding days she was apparently recovering, her tongue became clean, her appetite returned, and she said she felt hungry. The temperature,

[3] American Journal of Medical Science, November, 1895.

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however, remained stationary at 101°, in spite of the antipyretics, &c., as detailed below. She remained in this condition until the 21st, when she began to show symptoms of some nervous disturbance. She became dull and apathetic and had a gloomy, melancholy expression; the pupils were widely dilated, she did not seem to comprehend what was said to her, and it was difficult to elicit any answer to questions put to her. At times she sighed and moaned loudly, and she took her food in a ravenous manner. She recognised her relatives and conversed with them at intervals. I examined the eyes with the ophthalmoscope, but there were no signs of optic neuritis. She had no intolerance of light. She remained in this condition until April 25th, when Dr. E. Roberts of Penygroes was called in consultation. He agreed with me that there were evidently symptoms of cerebral mischief the nature and prognosis of which were doubtful. During the evening of the same day she began to toss her limbs about, the movements being quite typically choreic. One symptom in particular appeared to me very interesting and curious—e.g., that if a lighted candle was brought into the room she would immediately attempt to get possession of it, and she had to be held in bed to prevent her doing so. Unfortunately a sudden change for the worse set in about two o'clock on the morning of the 26th, when she was seized with tonic spasms which affected most of the muscles of the body, but more so on the left side, the sterno-mastoid muscles in particular standing out prominently. She then became comatose, and the spasms occurred more and more frequently until her death, which occurred at two o'clock in the afternoon, or just twelve hours from the onset of the tonic spasms.

Remarks.—The usual symptoms of meningitis were conspicuous by their absence and the symptoms during the greater part of her illness were very indefinite. There was no vomiting after March 12th, when I first saw her, she did not complain of any particular pain, she had no strabismus or paresis, and her temperature never rose above 102° after March 12th. I cannot offer any opinion as to how the meningitis was caused, as she had no hyperpyrexia, neither was there any evidence of ear mischief which might cause it. About three hours before death she discharged about an ounce of sanious pus from both nostrils, the source of which I was unable to ascertain as no necropsy was allowed. I have no doubt in my mind that when I first saw her she was suffering from influenza, and several children at the same school were laid up with it at the same time. Treatment, briefly, consisted in giving liquid nourishment and stimulants at regular intervals of an hour. Bicarbonate of potassium, bromide of potassium, liquor ammoniæ acetatis, salicylate of soda, quinine, aconite, and antipyrin, with cold sponging and counter-irritation to the spine during the last stage, were all tried, but with no effect.

Criccieth.

MENINGITIS AS A SEQUEL TO "SWALLOWING" A NEEDLE.

BY CHARLES J. COOKE, M.D., M.CH., R.U.I.,
MEDICAL OFFICER TO THE PLYMOUTH WORKHOUSE.

ON Feb. 3rd last I was called to see a girl aged eight years who was said to have swallowed a needle four days previously. She was in great distress, crying out when moved and holding her head strongly flexed towards the left side. Her temperature was 102°F.; the tongue was furred, and the skin was hot and dry. Failing to detect any foreign body I sent her to the local hospital, where she was examined, but without result. She was sent home, and on the following day I again examined her carefully, but failed to find anything, and from that time until her death, on Feb. 9th, the case was treated as one of meningitis, which it undoubtedly was. At the necropsy a careful search was made for the needle, as I felt sure that the illness was not merely a coincidence, and on passing my finger along the pharynx I felt a hard substance behind it, which proved to be an ordinary sewing needle one inch and a half in length. It was somewhat firmly fixed, the "eye" end was embedded in or slightly projecting through the posterior wall of the pharynx at the level of the floor of the nasal cavity, and the point was directed upwards and somewhat backwards behind the pharynx. Unfortunately it became dislodged during the dissection, so that I was unable accurately to discover its situation, but it must have been in very close proximity to the base of the skull and may have penetrated the sheath of one of the nerves. The child vomited several times after the accident, and this may account for the extraordinary situation in which the needle was found.

Plymouth.

CASE OF CALCULUS FORMING ROUND SILK SUTURE USED TO CLOSE WOUND IN THE BLADDER AFTER SUPRAPUBIC LITHOTOMY.

BY W. H. BROWN, F.R.C.S.IREL.,
SURGEON TO THE LEEDS GENERAL INFIRMARY.

A MAN aged twenty-two was admitted under my care into the Leeds General Infirmary suffering from retention of urine. Ten months previously I operated upon him for vesical calculus, removing the stone by the suprapubic operation and afterwards closing the bladder by a continuous silk suture. The case did well, union took place by first intention, and he left the infirmary quite relieved from all symptoms. On examining for the cause of retention I found a calculus impacted in the prostatic portion of the urethra, and it was necessary to perform perineal section for its removal. The stone was about an inch and a half in length and somewhat cylindrical. On making a transverse section of the calculus a piece of silk suture, apparently part of the continuous suture used ten months before, was found forming the centre and nucleus of the calculus, the silk evidently having passed entirely through the mucous membrane of the bladder into its cavity.

I think it right to publish this result as evidence of a possible disadvantage of using silk as a means of closing the bladder in such cases.

Leeds.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

LONDON HOSPITAL.

FIVE CASES OF RADICAL CURE OF FEMORAL HERNIA; REMARKS.

(Under the care of Mr. C. W. MANSELL MOULLIN.)

THIS series of cases of operation for the radical cure of femoral hernia will again draw attention to a method of operating which, in the hands of Mr. Moullin and others, has given very satisfactory results. Mr. Moullin refers in his remarks to other methods which have been employed for this purpose. We would remind our readers also that some surgeons find simple ligature of the neck with excision of the sac sufficient in the less severe cases, whilst others use some form of suture such as that suggested by the late Mr. John Ward, with the object of diminishing the size of the canal. We endorse fully what is said in the remarks on the case as to the advisability of operating for irreducible hernia in this situation. A patient with such a hernia, although it may be small, is always in great danger, which is not lessened by the application of a hollow pad truss. It is much better that radical cure should be performed when it can be done quietly and under the best conditions, rather than when the patient is very ill and possibly exhausted as the result of vomiting and want of food.

CASE 1.—A woman twenty-eight years of age was admitted into the hospital in September, 1893, suffering from double femoral hernia. The one on the right side had existed for ten years and had been irreducible for eight years. That on the left had only been noticed for a twelvemonth. For some years the patient had worn a truss (of late a double one) with relief; but in spite of this the right hernia continued to increase in size, little by little, and there was such a feeling of weakness when she tried to lift anything that she was advised to come to the hospital. The patient was

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prepared in the usual way and a radical operation, as follows, performed upon the two sides. The sac was exposed through the ordinary incision, detached from its surroundings above as well as below the crural ring, and laid open. The omentum it contained was partly reduced and partly ligatured and cut away, the stump being returned. The sac was then drawn down as far as possible and a silk ligature tied around the neck. One end of this was cut off; the other was threaded through the sac from side to side after Macewen's plan and passed up by means of a needle along the crural canal and through the anterior abdominal wall, so that when pulled upon from above it drew the sac into a pad and then carried the pad up through the crural ring into the subperitoneal space immediately over the ring. The pectineus muscle and part of the adductor longus were then exposed, and a triangular flap, with its apex downwards, reflected upwards from the two. This is done most easily by separating with the finger the fibres on the inner side of the thigh in the direction of their length, carrying the finger outwards beneath the muscle so as to lift it up and then dividing it near its attachment to the femur. The size of the flap must be guided by that of the crural opening. A double ligature was then passed through the flap at a little distance from the apex, and the flap partly pulled from above (in the same manner as the sac) and partly pushed from below into the crural canal until the ring was firmly plugged. Two silk sutures were passed from before backwards through the periosteum covering the pectineal surface of the pubes behind and Poupart's ligament in front and traversing the flap so as to hold it in its place, and the operation was completed in the usual way. Both wounds healed by the first intention; the temperature never rose above 100° F., and the patient was allowed to get up as soon as the contraction of the scars showed that the lymph was sufficiently organised. Two years later the cicatrices were sunken well below the level of the surrounding skin, the canal was occupied by a hard mass, and there was no sign of any protrusion.

CASE 2.—The patient, a woman thirty-six years of age, had noticed a femoral hernia (left) for four months. An operation similar to that in Case 1 was performed on June 21st, 1893. The highest temperature was 99° F., and the wound healed by first intention. In January, 1896, there was no sign of any protrusion and the patient was strong and well.

CASE 3.—The patient, a woman fifty-two years of age, had noticed a right femoral hernia for three years and a half. The patient had never worn a truss; the rupture had recently increased greatly in size. Operation was performed on Oct. 2nd, 1893. The highest temperature was 99° F. There was no suppuration. In January, 1896, there was no sign of any yielding.

CASE 4.—The patient was a woman thirty-two years of age. A right femoral hernia made its appearance eighteen months before admission, during pregnancy; it had been gradually getting larger. Operation was performed on Oct. 31st, 1893, when a large mass of omentum was removed. There was slight suppuration on the fourth day; the highest temperature was 101° F. The wound was sound and there was no sign of any protrusion six months later. The patient cannot be traced.

CASE 5.—The patient, a woman forty-three years of age, had noticed a reducible right femoral hernia for six months. Operation was performed on Aug. 15th, 1894. The wound healed at the end of a week. In January, 1896, there was no yielding of any kind.

Remarks by MR. MANSELL MOULLIN.—Since the above I have operated upon eight other patients, with, I believe, an equal degree of success, although in one or two the wounds have become septic and sinuses have been left for a time; but as less than eighteen months have elapsed I do not consider them of any value as regards the question of a radical cure. The radical cure of femoral hernia has not received so much attention as that of inguinal; yet the number of patients, particularly of women in the prime of life, who suffer from it is, beyond all doubt, very large. Many of them, it is true, are provided with trusses, and by dint of great care and no small expense manage to secure a certain degree of safety for themselves. But many others either wear no truss at all or, what is worse still, wear one that does not fit; and in these, sooner or later, the hernia is certain to become irreducible and a source of perpetual danger. Whenever there is an irreducible epiplocele there is constant risk of a fresh portion or of a knuckle of intestine being guided into the opening by the band of omentum that reaches from it to the stomach; and if this occurs there is the greatest risk of strangulation. In a very large proportion of the cases of strangulated femoral hernia that are operated upon there is an irreducible epiplocele of many months' or years' duration in front and a recently descended knuckle of intestine behind. The operation I have described is a combination of several others and does not pretend to be original. The treatment of the sac is borrowed from Macewen.[1] Salzer[2] described the method of plugging the canal with the fascia covering the pectineus muscle, which, however, is very rarely sufficient. Watson Cheyne[3] advocated the use of the pectineus muscle in the same way, a method that had been adopted four years before by Stonham.[4] The sutures, which by themselves are entirely useless in such cases, date from much longer back. The result of the combination so far has been entirely satisfactory. The only difficulty—and it is a real one owing to the position of the wound—is to keep the part aseptic. The muscular flap undoubtedly atrophies and becomes converted into fibrous tissue, but as the change is in all probability complete before many months have passed, and as none of the cases that were operated upon have shown any sign of yielding, I think there is a fair prospect of the cure being what its name implies, radical. There is no other method, so far as I know, for femoral hernia of which the same can be said.

BRISTOL GENERAL HOSPITAL.

REMOVAL OF PAPILLOMA OF THE BLADDER BY SUPRAPUBIC CYSTOTOMY; SEVERE SECONDARY HÆMORRHAGE ON THE THIRD DAY; RECOVERY.

(Under the care of MR. CHARLES A. MORTON.)

THE following account of operation for pedunculated papilloma of the bladder is very instructive. The growth was found in the most common situation, near the orifice of the right ureter, and presented no difficulty in removal. The cut pedicle does not appear to have bled much at the time, but secondary hæmorrhage to the extent met with is hardly known. It is probable that the use of the scissors to separate the growth rather than the employment of an instrument more likely to crush the parts during separation is chiefly responsible for this serious complication. We refer our readers to the remarks by Mr. Morton.

A man aged thirty-nine years was admitted to the Bristol General Hospital on Nov. 27th, 1895, with the following history. Eleven years previously, after an unusual amount of exercise, he had an attack of hæmaturia lasting one day, the blood being intimately mixed with the urine during the whole time the act of micturition lasted. During the next seven and a half years there had been only two attacks of hæmaturia, each lasting a day. Three and a half years before admission, for a month the urine had been blood-stained every time it was passed, and since then the hæmaturia had recurred every few weeks or months, the longest interval of freedom from hæmaturia being eight months, and this preceded the last attack, which began two months before admission. Sometimes the urine was mixed with blood from the beginning of micturition, but lately at times it had been normal at first, the stream had then suddenly stopped, with severe pain in the perineum, at the end of the penis, and over the sacrum, and then when it started again the urine was mixed with blood. On several occasions clots had been passed, and what had been considered by medical men to be pieces of tissue. Pain came on during micturition at times without involuntary stoppage, and then was sometimes so severe that he had to cease micturating in order to obtain relief. Rest in bed for a few days gave him great relief. When moving about he had to pass urine every quarter of an hour. For some time before admission he had been unable to walk at his ordinary pace, as the exertion caused pain in the perineum. He had been sounded for stone by three medical men. He brought a bottle of his urine with him; it was free from blood and acid, with a considerable deposit of pus; the specific gravity was 1020. The urine passed after admission was dark red with blood. On the 29th he was sounded, no stone being detected. The urine after sounding was only very slightly blood-stained. All the urine passed was strained through cloth, but no fragments of

[1] Brit. Med. Jour., Dec. 10th, 1887.
[2] Centralblatt für Chirurgie, Aug. 20th, 1892.
[3] THE LANCET, Nov. 5th, 1892.
[4] THE LANCET, Nov. 19th, 1892.

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growth were discovered. There was no induration of the base of the bladder as felt from the rectum, and no tenderness over the pubes or in the loins was present. On Dec. 2nd suprapubic cystotomy was performed in the usual way. The rectal bag was employed. The muscular coat of the bladder was found to be considerably hypertrophied. A raspberry-like growth was at once discovered attached by a firm pedicle either to the orifice of the right ureter or close to it at that end of the inter-ureteral ridge. The attachment of the pedicle to the bladder was divided with curved scissors, and all bleeding at once stopped by somewhat prolonged pressure of a sponge in a long handle. The growth was a typical soft papilloma the size of the last joint of the thumb, with a rather firm and long pedicle, which would allow of its passage into the neck of the bladder. The incision in the bladder was closed with catgut sutures around a drainage-tube, to the upper end of which a glass tube bent at a right angle was fixed, and from the other end of the glass tube a long indiarubber tube conveyed the urine into a vessel by the bedside. The recti were sutured with catgut and the skin with fishing-gut around the tube. When the patient left the operating-table the urine was only very faintly blood-stained. Cyanide gauze was packed around the tube over the sutured incision. On the 3rd the patient was very comfortable, and nearly all the urine came through the tube and hardly any leaked from the wound. The urine was quite free from blood. His temperature rose in the evening to 101° F. On the morning of the 4th he was comfortable, and urine free from blood drained away through the tube; but at 1 P.M. he felt a desire to micturate; nothing came but a few drops of pure blood, and it was noticed that urine had ceased to flow through the tube, and could not be removed from it by suction. A firm swelling had formed in the hypogastrium, extending upwards half-way to the umbilicus. It was evident that hæmorrhage had suddenly occurred and the bladder was full of clot. Nothing came through a No. 10 catheter, until an aspirator was attached, and then with much difficulty a few ounces of pure blood and some small clots were removed. This relieved him and seemed to reduce the size of the hypogastric swelling. Hoping that the hæmorrhage had ceased, an attempt was then made to break up and remove the clot by moving about a No. 15 Bigelow's catheter in the bladder, and then attaching the evacuator so as to suck out the broken-up clot, but it was unsuccessful. As the urine before the hæmorrhage had been draining away satisfactorily through the tube, clear of the patient, it seemed unwise to open up the bladder unless other measures failed, especially as it necessitated the re-administration of an anæsthetic. The bladder was then washed out with very hot boracic lotion with Bigelow's catheter and evacuator and this quite stopped the hæmorrhage, as shown by the lotion flowing from the suprapubic tube only very slightly bloodstained. But the hypogastric swelling continued, and he began to complain of pain spreading from the hypogastrium up the right iliac region towards the loin. The hæmorrhage, however, recurred, a little blood began to flow from the penis, and the urgent desire to micturate was again felt. The injection of very hot boracic lotion by the same method again stopped it, but not for long, and at last, as he was looking pale and seemed weak, it became necessary to open up the bladder and deal with the bleeding point. Up to this time the blood passed amounted to only the three or four ounces removed by the aspirator, a few small clots, and the colouring of the boracic lotion. On dividing the sutures several ounces (by measure) of black clot rapidly protruded, evidently under great tension. They had been lying between the bladder and the pubes and abdominal wall around the drainage tube, and had formed the hypogastric swelling. The bladder contained blood-stained fluid, but very few clots. Nearly all the stitches in the bladder had given way. On passing the finger into the bladder the hæmorrhage recurred, but ceased with the use of very hot boracic lotion. The bleeding point, where the pedicle of the growth had been cut through, was drawn towards the opening in the bladder with long catch forceps, but it was impossible to get a ligature around it, and some strong solution of perchloride of iron had to be applied on a sponge in a holder, pressure being made at the same time. The bladder was well-washed out with boracic lotion, the wound left open and well dusted with iodoform, and the urine caught in a carbolised sponge, frequently changed. This sponge was retained in position by a broad piece of thin gauze used as a binder, which allowed any hæmorrhage into the sponge to be visible at once to the nurse in charge. Later in the evening it was found necessary to pass a drainage-tube into the bladder as the recti came so nearly together, when the wound was examined after the patient had recovered from the anæsthetic. There was no further bleeding. On the 12th Mr. Cathcart's admirable suction apparatus[1] was started in action, and by its means all the urine was withdrawn from the bladder through the supra-pubic tube (which only loosely lay in the wound and did not reach into the bladder) and the patient kept dry. On the 22nd a few drachms of urine were passed by the urethra for the first time, and by Jan. 1st, 1896, all the urine came by the urethra, the tube having been removed from the supra-pubic sinus on Dec. 31st. The urine contained only a very light flocculent cloud on standing. The patient was discharged when the wound healed, and free from pain and cystitis, on Jan. 20th. There had been no blood in the urine after the time of the secondary hæmorrhage. The temperature was only raised to 101° on Dec. 3rd and 4th, after which it was normal.

Remarks by Mr. MORTON.—The diagnosis of papilloma of the bladder was easily made from the history, though it was thought desirable to exclude stone by sounding. The number of years over which the history of intermittent hæmaturia extended, at first at very long intervals, then becoming more frequent and lasting, and occurring at times only during the end of the act of micturition, pointed almost conclusively to an innocent growth—almost certainly innocent, because of the great length of time which elapsed between the first hæmorrhage and the later development of the symptoms. An interesting feature in the case was the sudden stoppage, with intense pain, and then return of the flow of urine. This resembled the condition often present in cases of stone, especially in children, when the calculus slips into the neck of the bladder, and doubtless the explanation was the same—the pedunculated growth slipped into the neck of the bladder at times, was tightly gripped and intense pain occurred, and the outflow of urine stopped. Unfortunately, when I first saw the patient there was a considerable deposit of pus in the urine—the case had reached what Mr. Hurry Fenwick calls the third stage, cystitis had set in, and this is unfavourable as a rule for operation. Had it not been so I should certainly have sutured the bladder and drained it by tying in a catheter. As it was I thought it better to drain from the suprapubic wound to relieve the cystitis and the result was very good—the cystitis completely disappeared. In a case of suprapubic lithotomy for an unusually large stone, and in which marked cystitis was present, I sutured the bladder and obtained primary union, no urine escaping above the pubes at all. But I thoroughly drained the space between the sutured bladder and the wound in the abdominal wall with a tube and iodoform gauze packing after partial closure of the incision through the abdominal wall, and I believe the surgeon may always safely suture the bladder, even if cystitis is present, so long as he carefully arranges for such drainage, for then if the sutures give way he is no worse off than if he left the wound in the bladder open from the first, and as I know from the case I have just referred to he may get satisfactory primary union even with the marked cystitis. But the cystitis persisted after the lithotomy in that case, and I am not sure if it would not have been better to have drained the bladder from above the pubes as I did in the case above recorded. The large collection of clots outside the bladder in this case was interesting. There was nothing to indicate that they occupied this position before removal of the stitches, and I thought the hypogastric swelling was the bladder greatly distended with clots. It might be thought that the position of the clots indicated hæmorrhage from a vessel on the exterior of the bladder, but no vessel bled in this position on turning them out, and very slight manipulation of the interior of the bladder started the hæmorrhage from the cut pedicle. No doubt the contraction of the bladder from time to time broke down the sutures and forced the soft clots through the incision into the space in which they were found; and some clots remaining in the bladder were broken up and washed out in the manner described before the bladder was opened. The presence of the clots around the drainage-tube blocked it and thus stopped the flow of fluid from the bladder, even though the bladder itself was almost free from clot. The

[1] Brit. Med. Jour., Oct. 19th, 1895.

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question naturally arises, Could the extra-vesical position of the clots be diagnosed? and it is an important one, for the danger of leaving such a collection of clots would be very great. Urine or injected lotion might flow from the bladder, as it did in this case, after a certain area in the bladder had been cleared of clots and yet much clot might remain. This was the condition I thought present. But it is evident from this case that with the persistence of the hypogastric swelling and the possibility of injecting and withdrawing fluid from the bladder such a collection of extra-vesical clots may be strongly suspected. I have used Mr. Cathcart's constant suction apparatus with great advantage in another case—one of suprapubic cystotomy for tuberculous ulceration of the bladder.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Non-suppurative Ankylosis of Joints.

AN ordinary meeting of the Pathological Society was held on Feb. 18th, Mr. BUTLIN, President, being in the chair.

A discussion took place on the Pathology of Non-suppurative Ankylosis of Joints. It was opened by Mr. WILLIAM ANDERSON, who said that the pathology of non-suppurative ankylosis was still incomplete and cases were often met with which our present theories of causation were insufficient to explain. Mr. Howard Marsh, in his address read before the British Medical Association in July last, led the way towards a better knowledge by recording a number of examples of the rarer forms of the condition, and it was with the object of reawakening discussion and educing further contributions from both physicians and surgeons that the present paper was read. Ankylosis was defined as a complete or nearly complete annihilation of the movements of a joint due to changes involving either the opposed surfaces of an articulation or the ligamentous and capsular structures investing. No separation was made between fibrous and bony ankylosis because the same injury might induce either condition, and a fibrous union might in time become osseous. As a tentative classification of the non-suppurative form it was proposed to divide the cases into two groups, according to origin: inflammatory and degenerative. *a.* The *inflammatory* form might arise from (1) mechanical injury, either of an accidental nature, such as simple contusion, fracture extending into a joint, &c., or intentional, as in resections and arthrectomies (cases of ankylosis by contusion were quoted); (2) toxic elements conveyed by the blood, as in septicæmia (puerperal, typhoid, scarlatinal, &c.), gonorrhœal rheumatism, gout, "quiet" tuberculosis, and possibly in syphilis; and (3) affections of the nervous system—surgical injury as in case of division of nerves; disease, such as Charcot's, rheumatoid arthritis, peripheral neuritis, and obscure neurosis. *b.* The *degenerative* form was exemplified by cases of (1) ossification of ligaments in rheumatoid arthritis and perhaps in other conditions; (2) forcible and long-continued pressure of one articular surface against another, as in the case of porters who carried heavy weights upon the head, and in extreme cases of lateral curvature; and (3) adaptive changes in ligaments around a joint that had undergone long immobilisation. *c.* A third section must be reserved for obscure cases that could not as yet be classified with certainty. The following case was then read. The patient, a neurotic man aged thirty, had suffered since the age of ten from a series of articular lesions terminating in fibrous or osseous ankylosis. Each attack set in without apparent cause and without constitutional disturbance, and was characterised by moderate pain and swelling of a single joint, followed after a few months by more or less complete fixation of the articulation. In this way the right wrist, the right knee, the right ankle and tarsus, the left elbow, the right elbow, and the right shoulder were successively invaded between the ages of ten and nineteen (inclusive), the ankylosis being osseous in the right knee, the right tarsus, the right shoulder, and apparently in both wrists, and fibrous in the other joints. Since the age of nineteen the attacks had been less frequent and severe, but the first phalangeal joints of both ring fingers and the left little finger had suffered, and within the last fortnight the left shoulder had become tender and painful. No osteophytic formations were apparent in any of the affected joints. In addition to the joint manifestations the patient was the subject of extreme hallux valgus (apparently independent of boot compression), a partial loss of power with stunting of growth of the right middle finger, and a vaso-motor paralysis of the skin of the right leg and foot. The patient was a very neurotic subject, but free from other disease and with a good family history. He had undergone a cuneiform resection of the right knee and a resection of the head of the right metatarsal bone. Various cases were related and preparations shown in illustration of the different headings of classification.

Mr. HOWARD MARSH stated that he had met from time to time with cases in which bony ankylosis had occurred without suppuration, slowly and quietly, and with no signs of active inflammation. These cases included:—1. Tuberculosis. He showed—(*a*) an elbow-joint in which there was complete synostosis between the humerus and the olecranon. The parts were removed by excision of the joint from a girl aged fourteen. There had been no signs of active disease, but the joint had gradually stiffened. Excision was performed by Mr. Walter Roughton of New Barnet, to improve the attitude of the limb. (*b*) The os calcis and astragulus from a case in which Syme's amputation had been performed for tuberculous synovitis of the ankle-joint. No suppuration had occurred, but the two bones were absolutely synostosed. (*c*) The second and third cervical vertebræ firmly ankylosed by bone. No history of the case was known, but Mr. Marsh attributed the ankylosis to tuberculous disease. The bones were perfect in their outlines and were not eroded. He mentioned other cases in which bony ankylosis appeared to have occurred in cases of tuberculous disease where there had been no suppuration. 2. Gonorrhœal rheumatism. He had recently excised a knee-joint, distorted as the result of gonorrhœal rheumatism, and in which he found the femur and tibia firmly synostosed. He believed that bony ankylosis was met with in other septic affections unattended with suppuration, as sometimes after parturition and after acute infective periostitis or osteomyelitis. 3. After mechanical injury. He instanced a case in which firm ankylosis, which appeared to be bony, had occurred after a severe fall upon the symphysis of the jaw. 4. In scoliosis. He showed three specimens, one from the Royal College of Surgeons of England and two from St. Thomas's Hospital. 5. Charcot's disease. Charcot had himself recorded a case of a tabetic foot in which there had been no suppuration. He had found the first and second metatarsal bones ankylosed to the internal and middle cuneiform bones. Mr. Marsh had not himself met with ankylosis in tabes apart from suppuration, but Charcot's case seemed a clear illustration of this result. 6. After nerve injuries. Mr. Bowlby had placed in the museum of St. Bartholomew's Hospital a hand in which, after division of the median nerve, bony ankylosis took place in some of the inter-phalangeal joints. 7. In gout. Of this he showed a clear example. 8. Multiple ankyloses of very obscure origin. He brought forward a case in which a young man aged twenty-two—whose original illness, which had occurred four years previously, was said to have been acute rheumatic fever—had complete bony ankylosis of both hips, both knees, and both ankle-joints. 9. In osteo-arthritis (so-called) of the spine. Here the different vertebræ were absolutely fixed together by bone as the result of ossification of the anterior common and other ligaments passing over the bodies and the ligaments of the neural arches. Mr. Marsh had found on microscopic examination that in all these cases alike ankylosis was effected by the development of true bone. In some of the cases he remarked a distinct irritant was in action—the tubercle bacillus, infective micro-organisms, the materies morbi of gout, or mechanical injury. In some ankylosis followed an abnormal condition of the nervous system, while in a third group—that which included cases of multiple ankylosis—the cause at present seemed to be completely obscure. It was perhaps doubtful whether the cases which he had placed under the title of osteo-arthritis of the spine would on further investigation prove examples of that form of disease which was termed osteo-arthritis in the appendicular skeleton.

Mr. DAVIES-COLLEY referred to a patient who was lately under his care, a boy aged ten with stiffness of the lower jaw. A year previously he had received a kick from a horse,

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ıich had caused great pain. On examination it was found at movement of the jaw laterally and from before backards had been lost, and this indicated that there was kylosis of the part of the joint above the inter-articular ro-cartilage. With regard to the ankylosis which resulted om gonorrhœal rheumatism he had described an acute rm, affecting especially the ligaments of the joint and companied by redness and œdema over the joint and with traordinary stiffness; both sexes were equally liable to e trouble. He called attention to a specimen which he d brought from the museum of Guy's Hospital, and which ıs more directly illustrative of the subject before them. was exhibited before the society by Dr. Fagge, and blished in the twenty-eighth volume of the Transactions. was one of synostosis of the posterior portions of the rsal vertebræ and of the heads of the ribs, accompanied ankylosis of one hip-joint. The patient was a man aged irty-four and he died from bronchitis. Dr. Fagge inted out the absence of any signs of osteo-arthritis, t could give no opinion upon the actual pathology of e case. Judging from two cases which had fallen der his own observation and from the reports of certain ses exhibited at the Clinical Society of so-called spondyis deformans, Mr. Davies-Colley was disposed to attribute is ankylosis to gonorrhœal rheumatism, although no ntion was made in the medical report as to the patient ving had gonorrhœa or not. He believed that in those tients with ankylosis of the posterior portion of the rtebræ the disease had begun with an acute inflammation the ligaments which had subsequently become converted o bone. Two such cases had come under his own obsertion. The first was a man aged thirty-two, whose case he ought before the society eleven years ago. The second was nan of about the same age, who was sent to him as a case caries of the spine about eighteen months ago. He had a peculiar round, immovable back which characterised is condition, and, like his previous case, he had been for a nsiderable time exposed to damp and sudden changes of nperature; but at the same time he had suffered from peated attacks of gonorrhœa. From the tenderness of the ck, the small movement of the ribs, and the pain which emed to him to be referable to pressure upon the nerves as ey passed through the inter-vertebral foramina, he came to e conclusion that the ankylosis was in the posterior parts the vertebræ and not in the bodies. These cases were so e, and the records of post-mortem examination so scanty, at it was difficult to form any certain deductions from em. His own impression, however, was that they were marily cases of acute gonorrhœal inflammation attacking e ligaments about the spines, articular, and transverse ocesses of the vertebræ. He believed also that the young n thus affected would be found to have a gouty or eumatic family history, and to have been unusually exposed cold and damp. Another peculiarity of the disease was at having once started it appeared to go on, although the ndition which had caused it was no longer in existence.

Dr. J. GRIFFITHS (Cambridge) said that in the spinal umn injury was frequently followed by ankylosis extending er two or three vertebræ. He showed a specimen of frace dislocation in which both the intervertebral discs and e ligamenta subflava were converted into bone. He showed other specimen of ankylosis of the occipital bone to the as in which he believed that the ankylosis resulted from ury damaging the arch of the atlas. Another specimen ich he believed also to be due to injury showed partial ation of the atlas with ankylosis to the occipital bone and the axis by the articular processes. Ankylosis as a result contusion or injury rarely occurred in the appendicular eleton. Bony ankylosis of the spine frequently occurred in l age and then the bodies of the vertebræ were found glued gether in front and at the sides, but ossification of the terior common ligament did not as a rule take place. He owed further specimens in which the fifth lumbar and first ral vertebræ were ankylosed by cancellous bone and ere was ossification of the ligamenta subflava, of the icular processes, and of the sacro-iliac synchondrosis. He ubted whether the cause of this was osteo-arthritis, for ne of the other changes characteristic of that disease were sent. A specimen of ankylosis of four vertebræ in lateral rvature showed a general fusion of the bones, including e discs but excluding the spinous processes. When structive disease, such as tuberculosis, was present in the nal column it was common to find that the laminæ and icular processes had become firmly united together. Cases of multiple ankylosis affecting the appendicular skeleton only and running a definite sub-acute course were interesting. He quoted the case of a girl aged twenty-eight, whose illness began with swelling and stiffness of the joints, without redness, going on for weeks, reaching a chronic stage and subsiding, leaving the joints stiff. He showed the bones of three feet in which there were no osteo-arthritic changes, but ossification of the periphery of the joints had occurred; the process was accompanied by a peculiar pitting of the articular surface of the joints. He regarded spondylitis deformans as merely the same disease beginning in the spinal column.

Dr. PASTEUR showed a girl aged sixteen years who was suffering from pseudo-ankylosis of the joints of all four limbs from the elbows and knees downwards. The hip and shoulder-joints were not appreciably affected, but the temporo-maxillary articulations were distinctly involved. There also appeared to be considerable limitation of rotation in the dorsal and lumbar spine, though the movements of the head remained free. Little pain was complained of during rest, but attempts at passive movement had always caused more or less pain. The patient first came under his observation in 1888, three years after the first onset of symptoms. The family and personal histories did not throw any light on the present affection. He did not believe that the process had been of an inflammatory type at any period of the disease. He had on no occasion been able to detect any effusion into the affected joints, or thickening of the articular ends of the bones, or any grating or cracking on passive movement. During the first two years the patient complained of recurring attacks of painful swelling of the hands and feet without general constitutional disturbance, but no attack of this kind had been observed since she came under observation. Stiffening of the joints was first conplained of eighteen months after the onset. All the joints in the affected limbs appeared to have been attacked simultaneously and the wrists and ankles had suffered more severely than any of the others. The fixation of the various joints had been steadily progressive from the outset and had kept pace with the remarkable atrophy and condensation of the soft parts of the affected limbs which had taken place. He had satisfied himself that the fixation of the joints was due to the changes in the muscles and structures around the joints and not to primary changes in the joints themselves. From the first arrest of movement in the affected joints was caused by the stretching of the tendons passing over them. It was probable that the ligaments and connective tissue around the joints had become adapted to the altered conditions, and it was likely that they had, in common with other parts, been subjected to the trophic changes observed throughout the limbs. That the resistance to passive movement in the earlier stages of the condition was independent of the will was proved by the persistence of the ankylosis under chloroform anæsthesia. From first to last he had entirely failed to obtain any evidence of alteration of sensibility in the affected limbs. The superficial and tendon reflexes were normal, and, apart from the remarkable clawing of the hands (which was suggestive of interosseal paralysis), there had been nothing to point to a peripheral or spinal lesion of motor nerves or ganglia. The electrical reactions of the affected muscles had always been those of health. Referring to the affection of the temporo-maxillary articulations it was noteworthy that there also the joint affection was associated with some loss of facial expression, due most probably to loss of elasticity in the skin and condensation of subcutaneous tissues analogous to the condition obtaining in the limbs, the arms more particularly. The case was anomalous in so many respects that he felt some diffidence in venturing to give it a name. When the patient was shown before the Clinical Society in 1889 its affinities to symmetrical diffuse scleroderma were noticed by several members, and he confessed that he was still, as he had been then, inclined to place it, temporarily at least, in that category.

Sir GEORGE HUMPHRY said that in his remarks he would confine himself to those forms of non-suppurative ankylosis in which there was ossification of the parts on the exterior of the joint—external ankylosis. In these cases there was an ossification of the ligamentous tissues due to an abnormal excitation of the sub-periosteal bone-corpuscles in them. These normally underwent stimulation in the course of development, and thus produced the processes and ridges seen on the bones, as, for instance, the anterior intertrochanteric line on the femur or the ridge for the insertion

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of the masseter on the lower jaw, or the ridges on the ventral aspect of the scapula. Sometimes these corpuscles might be stimulated abnormally, and thus lead to the production of bony processes between, among, or into the ligamentous tissues connecting bones or in relation with tendons. This ossification of ligament had its normal development in the case of the sacrum and in the normal ankylosis which occurred between the pre-sphenoid, the post-sphenoid, and the spheno-occipital vertebræ. This normal ossification was regulated by developmental laws and rarely went beyond them, but the extension of this condition was liable to affect the whole vertebral column. In lateral and antero-posterior curves the arches and the articular processes would unite, ossification spreading from the bone corpuscles at the edges of the arches through the ligamenta subflava and thus uniting them one with the other. It usually occurred where the fibrous structure was subject to some amount of stretching, thus stimulating the bone corpuscles. He would call the process *ossificatio fibrosa*, and under it he would class all the similar changes occurring in fibrous tissues attached to bone. The process spread along the margin on the articular surface, fusing the bones together; then the articular cartilages, having no function, disappeared and left the layer of cartilage bone which subtended that structure. The cartilage bone then gradually underwent absorption at points, and through these points shot up little bone processes from the subjacent cancellous tissue; these from opposite sides met and coalesced and thus the cartilage bone was removed and its place taken by cancellous tissue. What the cause was that excited the bone corpuscles he was not prepared to say, but he thought that it was more nearly related to a rheumatic affection than to any other. It bore no resemblance to Charcot's disease or to nerve affection; and speaking on that point he ventured to say that the neural tendency was a little too strong upon the pathologist at present, who would scarcely admit to various other tissues their fair share in originating disease.

CLINICAL SOCIETY OF LONDON.

Chronic Cancer.—Splenectomy for Rupture.—Pneumothorax during Typhoid Fever, due to Straining at Stool.

AN ordinary meeting of this society was held on Feb. 14th, Dr. BUZZARD, President, being in the chair.

Mr. T. W. NUNN read the notes of a case of Chronic Cancer of the Breast of more than thirty years' duration. The paper was in continuation of two former papers read before the society in 1872 and 1878 respectively, and recorded in the sixth and eleventh volumes of the Transactions. The patient, a female, was first an out-patient at the Middlesex Hospital in June, 1862, being then thirty-seven years of age and the mother of one child. Menstruation had ceased at the age of thirty years. There were a scirrhous tumour of the right breast and a chain of enlarged glands in the axilla. The breast was removed by Mr. Nunn in the September following. Four years later (1866) pain in the muscles of the arms and in the fingers was complained of, but the pain after a short while passed off. When the patient was examined in 1868 there was no alteration for the worse. In 1878 she was examined in the presence of the clinical class, there being a very limited return of the disease at the upper border of the cicatrix. In 1893, or more than thirty years from the commencement of the tumour, Mr. Nunn saw the patient again, having in the meantime lost sight of her. There was an increase in the cancer deposits, which were in the form of flat vein-marked plaques, and the arm was swollen. Mr. Andrew Clark took charge of the case in the out-patient cancer department of the Middlesex Hospital. The swelling of the arm having subsided, the patient ceased her visits to the hospital. In October, 1895, Mr. Nunn found the patient still living and energetic and doing work as a charwoman. In December it was found that the tissues of the axilla were puckered and shrunken, and the arm somewhat swollen below the elbow, the patient having, however, continued her occupation. Appended to this case was the sequel of Case 2, recorded in 1878, above alluded to. The patient died a year after the date of Mr. Nunn's paper. The necropsy revealed secondary deposits in the lungs and liver. Drawings of the microscopical sections of the breast and secondary deposits made by the late Dr. Lyell were now submitted to the society. As a further illustration of chronic cancer Mr. Nunn referred to a case of which microscopical sections of the recurrent tumour removed by him were exhibited at the Pathological Society of London in 1880, the original tumour having been removed seven years previously by the late Mr. Curling—Dr. Goodhart, the late Mr. Marcus Beck, and Mr. Rickman Godlee all having determined that the case was one of cancer. Mr. Lawson operated on a second recurrence in 1882, and the patient was, or was until lately, still living.—Mr. HOWARD MARSH mentioned the case of a woman now aged seventy-one years on whom he had recently performed a tenth operation for cancer of the breast, and the disease had existed for eighteen years although in its structure there was nothing to indicate that it was likely to pursue this chronic course. It was important to record these cases, which acted as checks to the doctrine that patients suffering from cancer might be regarded as cured if they remained free from the disease for three years. The instances recorded showed that though three years had elapsed since operation, yet the patients might not be finally free from the disease.

Mr. PITTS and Mr. BALLANCE read papers on Splenectomy for Rupture, with three successful cases. Case 1: A boy aged ten years was admitted into St. Thomas's Hospital under the care of Mr. Ballance on Sept. 11th, 1895. He had been ill since the early morning with severe pain in the abdomen, and had been sent to the hospital by Mr. White of Camberwell, who said he had internal hæmorrhage. Five days previously, whilst batting at cricket, the boy had been struck by a "full pitched ball" on the left side. After the injury he had been in much pain, but this had passed off until a few hours before admission, when it recurred. On admission he was collapsed and suffering from severe shock; the surface was blanched, the lips pale, the skin cold and clammy, the pulse small and rapid, and the respiration rapid and diaphragmatic. The abdomen was rigid, tender, and prominent; there was slight bulging of the flanks; the percussion note was dull in both flanks. On change of position the dulness could be made to disappear entirely from the right but not entirely from the left side. The patient rallied slightly and operation was proceeded with. A small incision was made below the umbilicus, and on opening the peritoneum a large quantity of fluid blood gushed out. A rupture of the spleen being suspected, a four-inch incision was immediately made in the upper part of the left linea semilunaris, which exposed a large quantity of clot, some of it dark in colour and some in part decolourised. This was removed and the spleen brought into view, when it was seen that the latter was severely ruptured on its phrenic and renal surfaces, the injuries extending into the hilum and involving the vessels. The pedicle was ligatured and the spleen cut away. All blood and clot were then carefully removed by sponging and the wounds dressed and closed in the usual way. Convalescence was rapid and satisfactory. At the operation it was noticed that a spleniculus was left behind. The blood was carefully examined while the patient was in hospital and it was found that the red corpuscles were diminished in number while the white were considerably in excess. The physiological mean was reached in about six weeks. At the present time the boy was in robust health and had gained weight, but the cervical, axillary, and inguinal lymphatic glands were all obviously enlarged. Case 2: A woman aged forty-five years was admitted to St. Thomas's Hospital, under the care of Mr. Ballance, at 11 P.M. on Sept. 15th, 1895, having been run over by a hansom cab. She was pulseless and blanched, her skin being cold and covered with a clammy sweat. There was some dulness in the left flank, and a little blood was drawn off from the bladder, the urine having been previously voided involuntarily. The temperature was 96° F. and the patient did not rally sufficiently to justify an operation until the following day. In the interval preceding the operation it had been observed that an increasing quantity of fluid was collecting in the abdomen, that there was dulness on both flanks, and that the dulness of the right flank could be made to disappear by change of position, whilst the dulness of the left flank remained constant. An operation precisely similar to that in Case 1 was carried out. The spleen was found to be badly ruptured across the gastric surface, the vessels of the hilum being also torn. The peritoneum over the kidney was uninjured and no urine had

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been extravasated into the abdominal cavity. An enormous quantity of blood and clot was removed from the abdomen. The patient left the theatre in a desperate condition, but gradually improved, so that at the end of ten days she was apparently convalescent. Then she began to go downhill and by the eighteenth day her condition was highly critical. She was extremely emaciated and very weak; the complexion was sallow, the face sunken, and the pulse rapid. There was a daily rise of temperature, together with great thirst, drowsiness, severe griping pains in the abdomen, pains in the limbs, and tenderness of the long bones. The red blood corpuscles numbered 3,500,000 and the white cells 10,000 per cubic millimetre. In this emergency the following treatment—which had proved successful in a case of removal of wandering spleen by Mr. Ballance where similar symptoms had occurred—was adopted. The patient was ordered the extract of one sheep's spleen and some raw bone marrow daily. She gradually convalesced from this time, and the treatment was not stopped until she had taken the extract of fifty sheep's spleens and twelve ounces of raw bone marrow. The patient had now regained her normal weight and was in every respect quite well, and though the lymphatic glands could be felt on the left side of the neck and in the right axilla there was no general and obvious enlargement of them such as was to be observed in Cases 1 and 3. Case 3: A man aged thirty-six years was admitted to St. Thomas's Hospital, under the care of Mr. Pitts, at 7.30 A.M. on Oct. 12th, 1895. He had fallen from a height of seven feet on to an iron girder, striking his left side. He complained of pain over that side and was slightly blanched, but otherwise apparently well. At 11 A.M. his condition became suddenly worse; he was deathly pale and almost pulseless, the extremities were cold, and the respiration quick. Both flanks were dull, but the dulness on the left side could not be wholly got rid of by change of position, and the man complained of great pain in the abdomen and said he thought he was dying. Restoratives were employed, and by 3 P.M. he had rallied sufficiently to make operation a reasonable thing to attempt. In the meantime it had been observed that the quantity of fluid in the abdomen had greatly increased. The same operation was carried out as had been done in Cases 1 and 2. On making the median incision an enormous quantity of blood gushed out, the peritoneal cavity being literally distended to its utmost capacity. When the spleen was brought into view it was found to be ruptured completely across, the vessels in the hilum being also torn. The cleansing of the peritoneum from blood and clot took some time, and the wounds were closed in the usual way. The patient gradually rallied and at the end of a fortnight he appeared in every way as if completely convalescent. He then commenced to lose ground without manifest cause and soon presented the appearance of extreme anæmia. His aspect was withered and sallow; he lost 3 st. in weight and became extremely feeble. There was a daily rise of temperature and the pulse was rapid. He also had fainting attacks, headache, great thirst, severe pains in the abdomen, and passed an excessive quantity of urine. The red blood discs numbered 2,500,000 and the white corpuscles 17,000 per cubic millimetre. It was determined to treat this patient on general principles. He was given cod-liver oil and bone marrow, but it was not until arsenic was administered that any real improvement was observed. In about two months the number of red and white corpuscles in the blood became normal. He gradually regained weight and at the present time was in robust health and following his occupation as a labourer, but all the external lymphatic glands could be felt to be definitely enlarged. Mr. Pitts and Mr. Ballance discussed in detail the diagnosis of ruptured spleen, laying stress especially on the following points: (1) the locality of the injury; (2) the evidence of internal hæmorrhage; (3) the great increase of the fixed splenic dulness; and (4) the fact that while both flanks were dull on percussion the right flank alone became entirely resonant on change of position. They then discussed the choice of the time for the performance of the operation, the details of the operation, and the treatment of the injured organ. With reference to the last point, they urged that in certain cases the hæmorrhage might possibly be arrested by some means other than the removal of the organ. The only other similar successful case (Reigner's) on record was then narrated, and the special symptoms produced by the removal of the normal spleen in man and brutes briefly described. The paper closed with the suggestion that the cases might throw some light on the physiology of the spleen, and it was pointed out that the serious symptoms that arose in consequence of the loss of the spleen in Cases 2 and 3 were apparently equally well combated in the one case by splenic extract and in the other by arsenic.—Mr. SILCOCK asked whether there was any bleeding from the rupture at the time of the operation. In one case the rupture was very small, and removal of the whole organ seemed to be a heroic procedure. Had the actual cautery been tried as a hæmostatic? It was not rare to find post mortem deep cicatrices indicating previous rupture.—Sir DYCE DUCKWORTH said that the results in splenic leukæmia and Hodgkin's disease were by no means encouraging, but those described in the paper were ruptured but otherwise healthy organs. He hoped for a physiological appendix to the paper later giving the after-history of the cases.—Mr. F. C. WALLIS asked why it was considered necessary to extirpate the spleen in each of these cases. He confirmed the statement that cases of recovery from extensive and deep rupture of the spleen were not rare.—Dr. MOFT said that the fact that the spleen underwent rhythmical contractions was in favour of extirpation for rupture, as the contractions would favour the recurrence of bleeding.—Mr. BALLANCE, in reply, said that in the case of the boy the spleen was bleeding at the time of the operation and he operated for secondary hæmorrhage. The vessels at the hilum were torn and hence suture was not possible.—Mr. PITTS, in reply, said the cases seen post mortem of recovery from ruptured spleen were very rare compared with those which proved fatal from hæmorrhage. He deprecated the use of the actual cautery, but would much prefer suture in cases where the rent was of a character which allowed of it. He promised that the after-history of the cases should be recorded.

Dr. HALE WHITE related the histories of two cases of Pneumothorax in the course of Typhoid Fever, and both due to straining at stool. The first patient, a young man aged nineteen years, had an ordinary attack of typhoid fever followed by a very severe relapse. He was convalescing from this when on the forty-first day, while the bowels were being opened after an enema, he suddenly became collapsed, livid, bathed in perspiration, and almost pulseless. For some time previously to this he had all the physical signs of a little fluid at the left base, and as immediately after the attack of collapse it was found that he had all the signs of left pneumothorax it was concluded that whilst straining the pleura, weakened by inflammation, had ruptured. The chest was aspirated. Seven ounces of non-purulent fluid with flakes of lymph floating about in it were withdrawn. The patient improved somewhat, but died three days later. The second case was that of a boy aged twelve years who, during the fifth week of his illness after a severe attack of typhoid fever, developed the general and local signs of a localised empyema at the right base. An exploring needle failed to withdraw pus, but the next day he coughed some up. As the temperature did not fall arrangements were made for the empyema to be opened externally, but two hours before the time fixed for this, while his bowels were being opened, the boy suddenly became extremely collapsed and livid and developed all the signs of right pneumothorax. He appeared almost dead and was quite insensible, but oxygen inhalations seemed to keep him just going. The right chest was opened where from the physical signs it appeared probable that fluid was present and twelve ounces of foul pus escaped. The operation was done without an anæsthetic, and the boy was so far gone that he never flinched. After the operation he gradually regained consciousness and was ultimately discharged from the hospital quite well. Here probably the localised empyema which had burst into the lung ruptured into the general pleural cavity during straining, and hence the pneumothorax.—Dr. GOODHART read notes of the case of a man aged twenty-four years who was sent to him by Mr. Qualtrough of Holloway on May 7th, 1891. The patient had had a slight attack of pleurisy in 1891 and returned to work after a stay at the seaside. He said he had had flying pains about his chest for some time, and for a week previously had felt puffy in his breathing on running upstairs. When Mr. Goodhart saw him he was pallid and short of breath, with well-marked pneumothorax on the right side, the heart being displaced to the left. He went into the country for a couple of months, and on his return had gained 16 lb. in weight, being in all respects quite well. On July 5th, 1892, he came again with a pneumothorax on the left side, which had come on suddenly. He said he had

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had as before flying pains about his shoulders and chest. The heart's beat was displaced to the epigastrium and reached to the right of the sternum. As on the former occasion there was no real distress and he considered himself quite well. He remained well during the autumn and winter, and when Dr. Goodhart saw him again there was no difference between the two sides of the chest. The interest of this case lay in the pneumothorax occurring first on one side and then on the other in both instances apparently without adequate cause, also that the air was rapidly absorbed on both sides without giving rise to any evidence of pleuritic disturbance. The rupture of an emphysematous bleb was, he thought, the most plausible explanation of the occurrence.—Dr. HABERSHON thought that in Dr. Hale White's cases the cause was probably the rupture of an emphysematous bleb while the patients were straining. Amongst the cases of pneumothorax at Brompton 90 per cent. were due to tuberculous disease, but a majority of the remaining 10 per cent. were due to rupture of an emphysematous bleb.—Sir DYCE DUCKWORTH said that after protracted typhoid fever pyæmic symptoms might supervene, associated with scattered pulmonary abscesses. The pus of these abscesses might contain not only Eberth's organism but also pyococci. It was quite the exception to find emphysema in young people, and though it was common in older people, yet rupture in them was rare.—Dr. HALE WHITE, in reply, said that personally he was inclined to agree that pleurisy was common in the course of typhoid fever in spite of the text-book statement to the contrary. He had seen the rupture of emphysematous blebs give rise to pneumothorax, but in his first case there had been an acute pleural inflammation and the thickness of the lymph deposit would presumably tend to strengthen the pleura and check any tendency to rupture. The mode of causation mentioned by Sir Dyce Duckworth was probable in the second case. A fellow student of his, while suffering from pleuro-pneumonia, suddenly developed pneumothorax. In that case it was said to be due to a weakening of the pleura by inflammation.

HUNTERIAN SOCIETY.

Annual General Meeting.

THE annual general meeting of this society was held on Feb. 12th in the London Institution, Mr. C. J. SYMONDS, President, being in the chair.

A cordial vote of thanks to the retiring President was passed by acclamation, and, after the usual compliments to the officers of the past year, the following were unanimously elected for the coming year. President: Dr. G. E. Herman. Vice-Presidents: Dr. R. Hingston Fox, Dr. A. T. Davies, Mr. T. Mark Hovell, Mr. T. H. Openshaw. Treasurer: Dr. F. C. Turner. Trustees: Dr. H. J. Fotherby and Mr. F. M. Corner. Librarian: Dr. A. T. Davies. Orator, 1897: Dr. R. Hingston Fox. Secretaries: Dr. Fred. J. Smith and Mr. A. H. Tubby. Council: Dr. T. H. A. Chaplin, Dr. W. J. M. Ettles, Dr. B. Dawson, Dr. T. G. Lyon, Dr. J. W. Oliver, Dr. W. Rawes, Mr. Henry J. Sequeira, Dr. St. Clair B. Shadwell, Dr. J. F. Woods, Mr. Hope Grant, Mr. C. J. Symonds, and Mr. J. H. Targett. Auditors: Dr. T. G. Lyon, Mr. F. G. Brown, Mr. Hope Grant, and Mr. F. R. Humphreys.

The Fellows then adjourned to the theatre of the London Institution to listen to the annual Oration by Dr. G. Newton Pitt on Hunter and His Contemporaries with special reference to Hunter. After a warm vote of thanks to the Orator, proposed by Dr. Davies, and seconded by Dr. J. H. Sequeira, the meeting dissolved.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Cystic Degeneration of Kidneys following Abortion.—Sarcoma presenting in the Nasal Fossa.—The Classification of Infiltrations and Degeneration.

A MEETING of this society was held on Feb. 12th, Dr. H. R. HUTTON, President, being in the chair.

Dr. ARNOLD W. W. LEA showed specimens and microscopic sections from a case of Cystic Kidney, in which acute nephritis had developed as a result of septic absorption following a miscarriage at three months. The patient was admitted to Queen Charlotte's Lying-in Hospital under the care of Dr. Grigg. On admission the temperature was 104° F., and she was evidently suffering from septic absorption. The uterus was emptied, its contents being very offensive, and the temperature rapidly fell to 99°, never rising again above 100°. The urine, however, was very scanty, containing blood and numerous epithelial casts; urea was much diminished in amount and the urine almost totally suppressed. Distinct tumours were felt in each lumbar region and considered to be enlarged kidneys. The patient died in ten days from uræmia. At the necropsy both kidneys were enlarged (the left was 13 oz. and the right 10 oz.). On the surface of the right kidney a few small cysts and on the left kidney a large number of cysts were seen, most of them being about the size of a large pea and containing yellowish fluid. On section the cortex was much increased in thickness, the pyramids being atrophic; the capsules were adherent. Microscopically the kidneys showed chronic interstitial change, the renal tissue being compressed by cysts; Malpighian corpuscles were scant in number. An acute parenchymatous and interstitial nephritis had supervened on this. In some sections the kidneys were distinctly portal in type; fibrous septa passed in from the capsule and numerous embryonic and imperfectly formed glomeruli were seen between the cysts. An abscess, probably recent, was seen in the left ovary, and a fresh adhesion of a coil of intestine to the fundus uteri; there was no peritonitis. The case was evidently one of chronic cystic degeneration of the kidneys of adults, congenital in its origin. The change had, however, not advanced to an extreme degree as in some recorded cases when the kidneys have been of enormous size. It is remarkable that the patient should have gone safely through so many pregnancies. There was no history of any renal symptoms preceding this attack, and she might probably have lived many years had not acute nephritis developed. This was no doubt septic in its origin.

Dr. HARING related the following case of Sarcoma presenting in the Nasal Fossa. The patient was a female, aged twenty-six years, suffering from complete obstruction of the right nasal fossa with swelling of the right side of the nose, epiphora, and unilateral right-sided paresis of the soft palate. The mass which blocked the fossa was seen to extend close to the anterior nares and by posterior rhinoscopy to occupy completely the posterior nasal aperture; it was of a dirty, pinkish grey colour, and bled freely on being touched by the probe, to which it gave the sensation of doughy resistance. It was found impossible to pass a snare-loop around the mass and a small portion was snared off, which on microscopic examination was found to consist of round-celled fibro-sarcoma. A fine probe-pointed bistoury was used to separate the attachment of the mass, which was on its outer and upper surface. The attachment severed, the mass was easily withdrawn (May, 1895). There was very considerable hæmorrhage. A fortnight later the middle turbinal, infiltrated by sarcomatous growth, was removed by the curette. Curettage of any presenting growth was done regularly every three or four weeks, and the patient kept in good health until the end of December, 1895, more than five months after the main removal. At this time epiphora and slight swelling between the eye and nose recurred. With a view to more radical operation the nasal fossæ were exposed by throwing down the nasal bones and the nasal process of the right superior maxilla in one flap. It was then found that the growth was limited to the body of the ethmoid, the cribriform plate being intact. The remains of the body of the ethmoid were removed, together with all the adjacent suspicious mucous membrane. One of the particular points of interest in the case was the fact that the first appearance of disease in the nasal fossa was a polypus, which, when removed by Mr. Cottam of Prestwich, presented all the appearances (macroscopically) of an ordinary benign nasal polypus. There was a speedy recurrence of a similar polypus, which was again removed by Mr. Cottam and again recurred. At the second recurrence the growth appeared more extensive, and, a portion having been removed and shown to be of a sarcomatous nature, Mr. Cottam sent the case to the Hospital for Consumption and Diseases of the Throat, where she came under the care of Dr. Haring. From the first appearance of the polypus to the second recurrence (undoubtedly sarcomatous) there was a period of from four or five months. Thus the first polypus, benign in appearance, either (1) became malignant, (2) was really malignant at the time, or (3) was caused by the irritation of the malignant growth on the surrounding tissues. With regard to 1 the period of time—from four to five months—and

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only two removals are hardly sufficient to warrant this theory; with either 2 or 3 (and Dr. Haring inclined to 3) it is worthy of attention that the prognosis in a case of apparently simple nasal polypus is not invariably so good as one is disposed to think in the general routine of practice.

Dr. DELÉPINE read a paper on the Classification of Infiltrations and Degenerations. After pointing out that degenerations are lesions of fundamental importance, indicating as they do certain reactions of tissues to morbid agents, he went on to say that much confusion still existed in text-books regarding the classification of these lesions. This was specially true when their relations to infiltrations were considered. In degeneration we must see a scale of downward changes, indicating the effects of influences more or less deleterious to the organisms. These changes always imply a loss of active protoplasm, either through excessive differentiation or active breaking down, ending more or less rapidly in the death of the cells. Between degenerations and necrobiosis, or necrosis, there is no very sharp margin. Infiltrations are the result of the accumulation in or between the cells of a tissue of some product normally present in the body or not. A true infiltration is not the result of a disintegration or of the differentiation of the cellular elements affected by it, but several of the lesions known as infiltration are closely allied to degeneration. Certain lesions may be considered either as degenerations or as infiltrations, according as they are taken in connexion with the body as a whole or a definite organ or tissue. Thus lardaceous or waxy disease is manifested by infiltration of most of the vascular tissues of the body, but is probably the result of degeneration taking place in certain cells. Mucoid or colloid degeneration of epithelial cells is followed by parallel infiltration of the connective tissue spaces which were occupied by or in the neighbourhood of those degenerated cells. For descriptive purposes it is necessary to put aside the complications produced by this concurrence, and in special morbid anatomy an arrangement based on the anatomical changes observable at a given time must be adopted.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Treatment of Burns.—Rheumatic Fever.—Exhibition of Cases.

A MEETING of this society was held on Feb. 7th, Mr. MAYO ROBSON being in the chair.

Mr. W. H. BROWN read a paper on the Treatment of Burns, which he considered was at the present day unsatisfactory. The death-rate from burns of all degrees in the Leeds General Infirmary was identical with that of twenty years ago. The causes of death are, first, shock, and, second, septicæmia. He recommended that a dose of morphia be given first of all to allay shock and allow the parts to be carefully cleansed and dressed. To keep the patient warm and protect the burns from air he advocated the continuous use of a warm bath rendered antiseptic with boric acid. Carbolic acid and mercury he discarded as being too easily absorbed. To lessen or prevent septicæmia he suggested that in future, where possible, the surgeon should after administering ether cut or scrape away the tissues that appear to be destroyed beyond a chance of recovery and then apply an ordinary surgical dressing. At present Mr. Brown uses eucalyptic oil, which is non-toxic and non-irritating.—Mr. J. W. TEALE (Scarborough) had used chloroform to apply and re-apply dressings, and thought that this decidedly lessened shock.—Mr. PRIDGIN TEALE observed that carbolic acid entered into combination with the sloughs, forming a kind of protecting leather which would be comparatively harmless.—Dr. CHADWICK and Dr. J. B. HALL spoke strongly in favour of the method employed in Vienna of using continuous warm baths throughout the treatment.—Mr. LITTLEWOOD observed that some time ago atropine was always given to allay shock. He thought that the warm bath treatment was the best, but believed that carbolic acid was not safe for the dressing of large burns owing to its ready absorption.

Dr. CHURTON gave an analysis of 135 cases of Rheumatic Fever, with remarks upon the Differential or Determining Factors of Arthritis and Chorea. These cases were under his care in the Leeds General Infirmary in the last five years. Six of them were children of, or under, ten years of age. In five of these the cause assigned was a "wetting"; and in one it was influenza. There seemed to be an almost general agreement or belief (1) that rheumatism had for its origin a microbe which was probably either intestinal or gastro-duodenal, and was swallowed with food or drink or with saliva; (2) that chorea was a rheumatic disorder; and (3) that chills and "wettings" aided the micro-organisms, but could not alone cause rheumatism. Even if uric acid or glycocine in the blood were the direct excitants of arthritis (and chorea) their presence was probably due to the action of a microbial toxine upon liver-cells and leucocytes. The details tabulated concerning the 135 cases were (1) state of health before the attack; (2) the assigned cause of the attack; (3) the joints first affected; and (4) a few observations in some recent cases upon acetone, indican, &c., in the urine. 1. The previous health was defective in 98 cases; in only 9 could it be said to be fairly good; and in none was it perfect. The better the health the slower is the onset, and the more potent must be the auxiliary causes—repeated "wettings" and strain; a series of colds; hard and wet work; wet through all day; wet clothes worn for several hours, &c. Of the 98 patients, 23 were ill-developed and had never been strong; 16 had been exhausted by overwork, want of food, anxiety, &c.; 12 had had several previous attacks; 31 had some chronic disorder, migraine, ozæna, otorrhœa, leucorrhœa, amenorrhœa, affections due to living in insanitary houses, &c. In 26 cases the reports furnished no evidence. 2. The causes assigned by patients were as follows: wetting, 62; chill, 15; damp clothes, 13; injury, 2 (a blow and a sprain); unhealthy houses, 2; other causes (influenza, fatigue, constipation, &c.), 9; no cause apparent, 5; and not stated, 25. Constipation (that is to say, retention of toxines and culture media) was prominent in many of the cases; diarrhœa in only 1; and indican, only recently looked for, was found in 9 (in these cases aperients, large enemata, and salol were more effective than salicylates. 3. The joints first affected are clearly indicated in only 33 of the cases. Chills or injuries, when they occur, seem to determine the time and site of the inflammation; in not one of the 33 is there an exception to the rule that the limbs which are most or alone chilled or injured are the first to show symptoms—arthritis or pain. This fact attracted attention to the following case. A boy aged nine years, formerly rheumatic, was startled by a man leaping out of an ashpit in the dark and seizing his arm. Chorea began immediately and arthritis three days later. In this case the injured part was the brain; the impressions on the sensorium would cause violent impulses and excitations; the motor area would receive the equivalent of a real blow; and just as rheumatic inflammation appeared first in the limbs injured by a blow or a sprain, so in this case the rheumatic disorder began in the injured brain.—Dr. MANTLE (Halifax) said that he brought the bacterial causation of rheumatism before the profession at the Brighton meeting of the British Medical Association ten years ago. Acute rheumatism was no more caused by chill than was pneumonia. Chill might be an exciting cause, but there was a something more which he believed to be a microbe.—Dr. GRIFFITH spoke in favour of the connexion between rheumatism and chorea. In 100 cases of chorea he had found distinct acute or sub-acute articular affection in fifteen and in some thirty others there was a more indefinite yet probably rheumatic affection.—Dr. BARR'S experience did not lead him to adopt the view that rheumatism and chorea stood in any causal relationship to one another.—Dr. JOHNSTONE CAMPBELL said that in his opinion the association of rheumatism and chorea was common, and that the former was often overlooked while chorea was often diagnosed when not present.

The PRESIDENT showed a patient whom he had trephined some years ago for Coma, the result of meningitis, in whom marked relief had resulted at the time from tapping the ventricles. The patient was now an active, healthy looking girl, and had had no return of her inflammatory symptoms, her only drawback being occasional epileptic seizures, the cause of which could not be traced. He also showed a man aged thirty-five years on whom he had performed Nerve-grafting six years ago, one year after a scythe accident which had severed the median and ulnar nerves above the elbow. The right arm was wasted and flail-like and both motor and sensory functions of the two nerves were in abeyance. The ends of the ulnar nerves were re-freshed and united by means of a rabbit's sciatic nerves, and, these having been used, the spinal cord was employed for the re-freshed ends of the median nerve. Union was by first

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intention and recovery gradually ensued. Now the patient has a good grasp and full power over the extensors and flexors of the forearm, wrist, and hand. Sensation returned more speedily than motion and was quite satisfactory.

LIVERPOOL MEDICAL INSTITUTION.

Roentgen's Rays.—Gallstones treated by Operation.—Physical Effects of Thoracic Effusions.

A MEETING of this society was held on Feb. 13th, Dr. RICHARD CATON, President, being in the chair.

Mr. ROBERT JONES showed a Photograph taken by Professor Lodge in the case of a boy Shot in the Hand. An account of the case will be found at p. 476 of our present issue, together with a reproduction of the photograph, which very accurately demonstrates the position of the bullet as being at the articulation of the os magnum with the metacarpal bone.

Mr. PAUL read a short paper on the Surgical Treatment of Gallstones. Nine cases were recorded, all of which recovered. They all occurred in women. The average duration of the symptoms before operation was nine years. In four the gall-bladder was fairly healthy; in two it was distended to form a large tumour; in one it was distended and inflamed; and in one it was absent, the stones being in the common duct. In one the ducts were dilated up into the liver, where the stone receded, it being necessary to perform cholecystenterostomy, a Murphy's button being used. Mr. Paul considered cholecystotomy the best operation that had been introduced during recent times.

Dr. MACALISTER read a paper on the Physical Effects of Thoracic Effusions. He related the results of clinical and experimental observations of his own regarding the explanation of some of the physical signs and of the visceral displacements. He considered that in acute cases the dyspnœa, the immobility of the side, and the diminished breath sounds were mainly the result of interference with the action of the diaphragm by the pressure of the fluid upon it. Cardiac displacements were shown to be due to the pressure of the fluid. The lowering of the heart was probably due to the manner in which the pleura becomes distended. He drew attention to the fact that when full of fluid a portion of the pleura crosses over the middle line of the chest. The anatomy of the displaced organ was referred to, and its relation to the lung on the healthy side considered. The infrequency of any appreciable depression of the spleen in cases of left-sided effusion was explained by the occurrence of a recess, which remains in the under surface of the diaphragm near its attachment to the ribs even when the diaphragm is forced down by fluid. In this depression the head of the spleen lies uninfluenced by pressure.—Mr. THELWALL THOMAS related an instance of displacement of the spleen into the iliac fossa by a large empyema in the left chest.—Dr. BUCHANAN thought that the methods which had been adopted in Dr. Macalister's experiments were not beyond criticism. He thought that the reader of the paper had drawn attention to an important point when he showed that the dull area in pleuritic effusion extended across the middle line of the chest, above the level of the second rib. He could not agree that the loss of the breath sounds is principally due to diminished action of the diaphragm irrespectively of the amount of fluid, for if the normal thorax be surrounded by a cushion of water all the sounds are greatly diminished.—Dr. HILL ABRAM said that he dissented from Dr. Macalister's conclusions. He agreed with Traube, Vierordt, Douglas Powell, and others who held that there was a certain amount of traction by the lungs upon the mediastinum, due to the fact that the lungs are kept in a state of slight distension by the pull of the chest wall; this was an indubitable fact. It followed, he thought, that the first result of an effusion into the pleura was to neutralise the traction of the corresponding lung upon the mediastinum and to allow that exerted by the lung of the opposite side to pull the heart over to the sound side. Later, actual pressure of the effusion pushed the heart over and depressed the diaphragm. He considered diminution of Traube's space indicated a considerable effusion.—Dr. GLYNN, Dr. BARR, Dr. CARTER, and Mr. DAMER HARRISSON also took part in the discussion.—Dr. MACALISTER replied.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Medical Aid Societies.—Hypertrophic Rhinitis.

A MEETING of this society was held on Feb. 8th, Dr. MUTCH, President, being in the chair.

The report of the committee, elected at a former meeting of the society, for the purpose of considering the best means of dealing with the subject of Medical Aid Societies was read. It was to the effect: (1) That all the receipts except what is necessary for expenses should go to the medical men; (2) that canvassing and public advertisements should not be allowed; (3) that some evidence should be obtained of the financial position of the persons wishing to join before they are admitted; (4) that each person should be medically examined before admission; (5) that medical aid societies promoted by and for the pecuniary aid of men outside the medical profession should not be countenanced; (6) that medical aid societies associated with life assurances should not be countenanced; (7) that no objection should be held to private medical aid societies of medical men provided that they conform to the above principles; and (8) that no person, adult or child, should be admitted as a member of a medical aid society at a less charge than one penny per week.—A discussion on the subject followed, in which Mr. MACMILLAN, Dr. WATSON, Dr. RANSOM, Mr. SNELL, Dr. TRESIDDER, Dr. ROBERTS, Mr. COX, the PRESIDENT, Dr. HEELIS, Dr. FFENNELL, and Mr. MACKIE took part, and it was decided that the report should be accepted and agreed upon by the society. It was further decided that the committee should reconsider the matter and devise the best practical means of dealing with the anomalies of medical aid societies and report to the next meeting of the society.

Mr. GRAY read a paper on Hypertrophic Rhinitis. After describing the anatomy, both macroscopical and microscopical, of the nasal cavity he further described the functions of the mucous membrane of the parts in health and the pathological bearing when the mucous membrane was diseased. He thought that most cases of post-nasal catarrh, chronic pharyngitis, pharyngitis sicca, and mucous catarrh of the middle ear were dependant upon and consecutive to the disease under consideration.—Dr. MUTCH, Mr. MACKIE, Dr. RANSOM, and Mr. COX spoke, and Mr. GRAY replied.

EDINBURGH OBSTETRICAL SOCIETY.

Exhibition of Specimens.—Osteomalacia.—Ulcus Serpiginosum of the Vulva.—Braune's Os Internum and the Retraction Ring.

A MEETING of this society was held on Feb. 12th, Dr. A. BALLANTYNE, President, being in the chair.

Dr. HAULTAIN showed a specimen of Missed Abortion where the ovum had been retained for three or four months after death of the fœtus. It was expelled spontaneously, but there was severe hæmorrhage from the placenta, which was partially adherent. Instead of being atrophied, as these cases are usually described, it was vascularised, evidently due to the adhesion.

Dr. MILNE MURRAY showed two specimens of Malacosteal Pelvis; both specimens were from males. One showed certain vertebræ more affected than others; the other had the disease present only in one side of the pelvis.

Dr. JAMES RITCHIE read a paper on Osteomalacia, with a discussion of the Etiology and Treatment. After referring to four cases met in practice he gave the history in detail where oöphorectomy had been performed and where rapid improvement at once occurred. There has grown up during the past ten years an extensive literature, especially in Germany and Italy, on this subject. The onset of the disease is usually obscure, and it affects chiefly the osseous and nervous systems. Cases are often mistaken for rheumatism or disease of the spinal cord, having paresis of the lower limbs, increase of knee-jerk, contracture of adductors, and general weakness of the muscles. The earliest symptom is usually pain in the sacrum, pelvis, or spinal column, followed by difficulty in walking, producing a rolling or waddling gait. The disease may be recovered from at any stage; it may progress slowly or rapidly, evenly or with exacerbations. The bones bend owing to the removal of earthy salts and the pelvis assumes its characteristic

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form. Owing to this distortion the origins and insertions of the muscles of the thighs are approximated, and their ability to act is therefore diminished. Sometimes rhythmical movements like those characteristic of cerebro-spinal sclerosis are present, also tetanic seizures. The generative system, apart from difficulty in parturition, seems to be healthy. Metrorrhagia may be present. There seems to be a considerable difference in age in different localities. In Bavaria the largest number of deaths is returned as at between twenty and thirty years of age. The disease has been observed in men. Lactation seems to favour the production of the disease, yet it has not been noticed in Japan, where the women nurse for two or three years. The morbid anatomy consists in the early stages of dilatation and congestion of the medullary vessels, and the bones become more cancellous. The bone salts are removed from small areas, but immediately beyond the decalcified area the bone seems to be normal. Osteoclasts are seen in the parts affected. There is no inflammatory exudation, but a process of new formation can be seen going on with the absorption. No constant changes have been found in the blood, and the tissues as well as the blood have been subjected to very careful bacteriological examination, but no constant result has been obtained. A condition similar to this disease has been noted in animals. About twenty years ago the condition was considered almost hopeless. Cases in which the disease advanced during pregnancy have been known to recover after confinement, and the climacteric has also had a beneficial effect. The disease has, however, been known to occur after the menopause. Different writers have had good results from internal treatment, the most beneficial being phosphorus. Baths of sodium chloride have given good results. Chloroform narcosis has been suggested, but very little benefit has followed its use. Oöphorectomy has now become an acknowledged method in the treatment. The result is not definite and certain, but a large majority are completely cured, others are improved, and only a small proportion show persistent relapse or no change in the course of the disease. The uterus has been removed after oöphorectomy with improvement. Dr. Ritchie discussed very fully the different opinions held with regard to the etiology of the disease; he considered the essential character of the disease to be trophic. This view is borne out by the microscopic examination of the bone both during the stage of advance and during recovery, as not only the salts but also the organic parts of the bones are removed. Another fact is the early date at which nervous phenomena appear. These are not due to pressure; and the early increase of patellar reflexes, the ankle clonus, and muscular spasms all show that the cord is involved. After operation the rapid amelioration and disappearance of the pains on movement also point to the central origin of the disease. Those symptoms are sometimes considered as reflex and place the source of irritation in the ovaries; but the disease has been known to arise after the uterus and ovaries have been removed. Either some other source of irritation must be found or the disease located primarily in the spinal cord. The precise nature is not known, but it probably involves some of the large caudate cells in the anterior cornua, and it may also affect the adjacent nerve cells, thus leading to the increased reflexes. With these cells in a condition of low vitality and increased irritability the effect of reflex irritation from the ovaries or other organs at the menstrual periods and during pregnancy might be sufficient to excite or aggravate the disease, and prolonged lactation or deficient hygienic conditions by lowering the general nutrition would also affect the nerve centres.—Professor SIMPSON stated he had been much impressed with Dr. Ritchie's reasoning, and considered his paper would be a useful source for reference on osteomalacia.—Dr. BARBOUR thought it was difficult to accept Dr. Ritchie's theory of spinal origin owing to the rapid improvement after operation. He was inclined to believe it was due more to a reflex condition affected by removal of the ovaries.—Dr. UNDERHILL explained the fact that it occurred in males and that the ovaries were therefore not of essential moment in the cause of the disease.—Dr. MILNE MURRAY referred to a case of Porro's operation performed by Dr. Underhill for osteomalacia, when the stump separated on the fifth day. Another performed by Dr. Croom at the same time had separation of the stump during the fourth week. This showed that the osteomalacic process affected the soft tissues of the pelvis as well as the bones.

Dr. A. H. F. BARBOUR read a paper on a case of Ulcus Serpiginosum of the Vulva. This case was reported to the society twelve years ago by Dr. Angus Macdonald as a case of lupus. The patient, now aged sixty, was married at twenty-two, and after five years had a full-time child and healthy. Seven other children were born, five of whom are still alive and well. Her first husband died aged forty-one; some time after she fell over a cask and received a bruise on the genitals, which left a persistent hard lump. At forty-four she married a man who had evidently been some months under treatment for some venereal trouble. A year after marriage she noticed a slight bleeding and discharge, which she thinks came from the lump, but she could not be positive. When forty-six she underwent operation by Dr. Angus Macdonald, who stated that, apart altogether from clinical evidence, there was sufficient microscopical evidence to warrant a diagnosis of lupus. At this time the labia were enlarged, nodular, with their inner surfaces ulcerating; the labia minora had been destroyed by ulceration. The diseased tissue was removed by gouge, scissors, and cautery, and the patient was dismissed cured. A year afterwards the disease began to return and progressed slowly. She was again operated on in 1887 and the condition improved. Four months ago the whole vulvo-anal region appeared as an ulcerated surface covered with faintish red granulations; the skin was overhung by the new formation. After operation with the sharp spoon she was much improved, but the disease has again returned in certain places. Dr. Norman Walker examined the case and gave the microscopic characters. After detailing its characters he stated it was unlike any tissue that he had previously examined. Tuberculosis and carcinoma were easily excluded. He submitted sections to Dr. Unna, as it seemed to correspond with the disease described in his book as ulcus serpiginosum, and Dr. Unna believed it was quite possible that it was so. Dr. Norman Walker regarded the growth as of this nature rather than endotheliomatous. The bacilli found corresponded well with Unna's description.

Dr. A. H. F. BARBOUR also read a paper on Braune's Os Internum and the Retraction Ring. He had not published previously the microscopic evidence which led Dr. Webster and himself to describe the prominence in the muscular wall of the uterus in their frozen section as the retraction ring, and the examination of which allows the os internum to be approximately defined. He showed many microphotographs of the disputed area from this section, and justified the assertions with regard to it that there is a retraction ring and that the os internum lies below it.—Dr. BERRY HART considered Dr. Barbour had conclusively proved the subject of the position of the retraction ring.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF OBSTETRICS.

Elephantiasis (so called).—Eclampsia.—Ovarian Tumour in a Child.—Fibro-myomatous Uterus.

A MEETING of this section was held on Jan. 31st, the President, Dr. LOMBE ATTHILL, being in the chair.

Dr. F. W. KIDD read notes on a case of so-called Elephantiasis occurring in a patient aged thirty-three years who had been sent to him from the country. She had never been abroad nor was there any suspicion of a syphilitic origin. She attributed the growth of the tumour to a fall which happened about thirteen years ago. It commenced in, and involved all, the tissues of the right labium and hung down more than half way to the knees. It did not grow quickly at first, but increased more rapidly for the last eighteen months. She now sought advice for the first time and only because the growth had assumed such proportions that it was impossible for her to sit down with any comfort. There were no disorders of menstruation or micturition. The growth was removed on Dec. 7th, 1895. An elliptical incision having been made, the diseased tissues were dissected out from the anterior surface of the symphysis, where they were very adherent; the bleeding points were ligatured or twisted; the site of the clitoris giving much trouble, a drainage-tube was inserted and the wound was closed with numerous silkworm-gut sutures, but it did not heal by first intention; some suppuration took place, and it was only by the utmost care that septic trouble was avoided. The patient's temperature never went above

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101·2° F. She made a good recovery, though somewhat slow. When removed and in the recent condition the tumour weighed 5½ lb. The following was the report made by Dr. McWeeney: "The tumour is whitish in colour, covered close to the pedicle with rather dark-coloured skin, from which grew a few long hairs, whilst elsewhere it is covered with epithelium which has the character of mucous membrane. It is lobulated and very irregular in shape, with numerous papilla-like excrescences, so as to resemble a gigantic wart; the consistency is rather soft. Between the larger lobes are curious sinuous cavities, some of which are actual passages or canals running right through the mass from near the pedicle at one end to the free convexity on the other. Part of the skin covering the base of the tumour is covered with innumerable small pedunculated protuberances like fungiform papillæ. Microscopically the tumour consists of a somewhat œdematous fibrous tissue of loose texture containing so many lymph clefts that in places one might almost term it a lymphangioma. There are also very numerous newly-formed bloodvessels. Around the lymph clefts are many collections of lymphoid and epitheloid cells. Sections of the papilla-like protuberances show essentially the same appearances. The surface is covered with stratified epithelium, which, from its slightly-developed horny layer and absence of hair follicles, may be said to constitute a mucous membrane. I should be inclined to class this specimen provisionally as molluscum fibrosum." Dr. Kidd exhibited two excellent photographs of the tumour before removal.—The PRESIDENT had only met with one case analogous to this, one of the labia being enormously enlarged, but the growth did not reach one-third of the dimensions seen in the present instance.—Dr. JELLETT had observed a case in many respects similar to Dr. Kidd's, one labium being three times the size of the opposite labium.

Mr. HASTINGS TWEEDY read a paper on Eclampsia, arguing that it, like uræmic convulsions, arose from retention products in the system the normal resultants of tissue waste. There may be either a diseased condition of the kidneys or else an increased formation of toxine This latter factor is always present during pregnancy and is in large part to be attributed to the growth of the fœtus. Convulsions do not owe their causation to the presence of toxines in the blood, but rather to the deposit of the poisonous substance in the nervous centres, and he believed that it was quite possible to quickly remove this substance from the endangered centres by depleting the blood of its water. Purging, sweating, or blood-letting would effect this; but the kidneys alone were to be relied on to directly get rid of the harmful substance. Of course, the administration of fluids in any form would completely counteract any good effects which might follow the above line of treatment. Morphia given hypodermically in large doses (up to 2½ grains in twenty-four hours) presented the greatest number of advantages with the fewest disadvantages in the treatment of eclampsia. All now knew that morphia had but slight if any effect on either the heart or kidneys. On the other hand, it limited the formation of toxines, controlled convulsions, dried up bronchial and salivary secretion, was a diaphoretic, and above all prevented the onset of labour. No greater danger could happen to an eclamptic patient than that labour should set in.—Mr. HORNE said that the presence of these toxines had not been demonstrated.—The PRESIDENT said that the danger of the convulsions is infinitely greater when they occur in the earlier stages than when they occur in the later stages of labour. He had induced premature labour successfully in two or three cases.—Dr. ALFRED SMITH pointed out that some German investigators were inclined to believe that acetones in the blood were the cause of eclampsia. The recognised treatment of eclampsia was by large doses of morphia.

Dr. ALFRED SMITH showed an Unilocular Ovarian Tumour the size of an adult head which he had removed from a child aged thirteen years. The patient made a rapid recovery. She had not menstruated.

Sir W. THORNLEY STOKER exhibited a Uterus with a number of attached Fibro-myomata which he had removed from a patient thirty-five years of age. The pedunculated growths varied from the size of a goose egg to one so large that it weighed 15 lb. The entire weight of the parts removed, when drained of blood, was 19 lb. 10 oz., and must, when full of blood, have been about 24 lb. The condition of the patient from the time of operation to the date of meeting, ten days, was perfectly satisfactory. She had not even suffered inconvenience and was practically out of danger.

Reviews and Notices of Books.

Parasitism, Organic and Social. By JEAN MASSART, Assistant at the Botanical Institute, Brussels, and EMILE VANDERVELDE, Lecturer on Political Economy, Brussels. Translated by WM. MACDONALD. Revised by J. ARTHUR THOMSON. With a Preface by Professor PATRICK GEDDES. London: Swan Sonnenschein and Co., Limited. Pp. 124. Price 2*s.* 6*d.*

THIS little volume is an attempt to trace the analogies that exist between the forms of parasitic existence that are found in the animal kingdom with those that may be observed in human society, and is written with some sense of humour. It is the combined production of a biologist and of a political economist. It is shown that in societies of animals and man alike there are to be found individuals and even classes who live at the expense of others without destroying them and without doing them service. In some instances the association is only one of commensalism, as von Beneden has termed it, where one animal accompanies another and feeds at the expense of the host without harming it, merely picking up as it were the crumbs that fall from its table; whilst there are others which lodge in the intestinal canal, or even inhabit the blood of its host, and do not require to take any kind of thought or trouble to obtain the food which has been obtained by the activity of its host, and which is so abundantly provided for it, surrounding it in a more or less elaborated and assimilated condition. The whole series of transitions from free life to parasitism may be traced in some of the Gasteropoda which live on or in the Echinoderms, the animal in each instance possessing in youth the characteristic shell of the gasteropod, thereby proving that they were all derived from non-parasitic types. Thus "Capulus is a parasite of support which attaches itself to Crinoids and lives upon their digestive waste products. Next to it comes Thyca, which buries part of its body in the outer coating of its asteroid host. Then Stylifer, which has almost completely disappeared into the substance of the sea star which bears it. Then Entocolax, which penetrates into the tissues, and is therefore virtually an endo-parasite; nevertheless, it still remains fixed by its hind extremity to the outer wall of its host. Lastly, comes Entoconcha, which is absolutely endo-parasitic and fixes itself by its head end to that part of the vascular system which runs along the digestive tube of its host." Corresponding with all this, and many other examples derived from the animal kingdom are given, we have a development of parasitism in human societies. In lowly organised communities each man must gain his own livelihood and food for his family by work; but, as is seen in the Bosjesmans, who eat ants, wild fruits, and carrion, no opportunity is lost of changing to the parasitic state and living by plundering the Kaffirs, the Hottentots, and the white settlers. So a *gamin* of our streets may be almost simultaneously a parasite as when he practises larceny, a mutualist when he takes a turn at going errands, and then immediately a sort of social saprophyte when he gives himself to the gathering of cigar ends, or a holophytic individual when, reverting to more primitive habits, he betakes himself to the country to gather what fruit he can lay his hands on. In the history of the Roman people we have a classic example of a community which begins with an agricultural, self-supporting mode of life and ends by being altogether parasitic. In the later days of the Republic and under the Emperors the populace were largely fed on the corn of the provincials, and the rich employed armies of slaves to till vast farms.

Mutualism ends, the authors remark, when absenteeism begins, and in most instances parasitism quickly takes its place. In the United States and in Great Britain the proprietary

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régime is producing exactly the state of things that prevailed in the Roman Empire, where six monopolists owned among them one-half of the whole province of Africa; and it has been alleged, though we doubt the figures, that at this moment half of England and Wales belongs to 4500 persons, half of Ireland to 744 persons, and half of Scotland to only 70. Again, in the factory system the evolution towards parasitism goes forward in open daylight. In proportion as the extension of the market calls for an increase in the scale of production, the more marked becomes the separation of the wage-earners who are engaged in the actual work of production from the capitalist master, who retains to himself the task of direction alone. Then comes the moment when these captains of industry delegate their functions to lieutenants, reducing their personal interference in the business to a minimum. One step further and the parasitic condition is fully achieved: on the one side work and no property, and on the other side property and no work.

Once more it is easy to trace the transformation of personal services into parasitism, and the authors take as typical examples the clientage of Rome and the court officialdom of France under the ancient *régime*. In the Court of France there was an army of 14,000 men, absorbing a tenth of the entire public revenue, at whose head was a certain number of high and mighty seigneurs, hereditary holders of offices which had gradually assumed the character of lucrative sinecures, such, for example, as the master of the king's horse, master of the pantry, grand master of the wardrobe, grand cup-bearer, grand carver, and many others, the titles showing that the persons actually holding them had taken the place of former companions of the king who were wont to render him real personal services. Spain at the end of the last century, like certain ants, the whole community of which are sometimes destroyed by their parasites, harboured so many parasites that out of a population of 3,800,000 men there were 1,221,000, or nearly one-third, priests, soldiers, marines, nobles, lawyers, Custom-house officers, students, and domestic servants. No wonder its vitality and energy were feeble! We recommend the work to our readers as one from which they will derive both amusement and instruction. The translation is very well done.

The Principles and Practice of Medicine. Designed for the Use of Practitioners and Students of Medicine. By WILLIAM OSLER, M.D., F.R.C.P., Professor of Medicine in the Johns Hopkins University, and Physician-in-Chief to the Johns Hopkins Hospital, Baltimore. Second edition. Edinburgh and London: Young J. Pentland. 1895.

DR. OSLER'S work has acquired such well-merited popularity in this country that the appearance of a second edition in little less than four years is no matter for surprise. It has now been thoroughly revised and several of the chapters have been more or less rewritten. This has involved an increase in size from 1050 to 1110 pages, while the index has also been extended from twenty-eight to thirty-two pages. Much of the change which has been made is due to the incorporation of recent bacteriological research. The chapter on Diphtheria is practically new, owing to the extensive advances which have recently been made in our knowledge of this disease and its treatment, and it forms a very complete and valuable account of the subject. There are many additions to the chapter on Malaria, and even the modern oyster is noticed in a short paragraph on the spread of typhoid fever. The changes in the book are, however, by no means confined to bacteriological subjects. The section on Appendicitis has been much improved, and we note the incorporation of Hawkins's valuable work on this subject, as well as that of other recent writers while the surgical aspect of the question is very fully insisted on. The pages dealing with Diseases of the Nervous System show some important changes; a general introduction to the subject has been inserted dealing with the course of the various tracts, with cerebral and spinal localisation and topical diagnosis; and the text has been embellished with a number of new and valuable diagrams in which the judicious use of colours adds greatly to the clearness and effect. Besides these more striking changes there will be found a multitude of minor additions and alterations, and, thanks to the care with which it has been revised, the work possesses, in addition to the reputation established by the success of the first edition, the great recommendation of being thoroughly up to date. To the English reader it offers a happy combination of the fruits of an eminently cosmopolitan study of medical literature, with the attraction of originality and freshness in the discussion of many questions which in our series of text-books have often received a stereotyped treatment, little conducive to personal thought and investigation on the part of the student. We know of no text-book better adapted for steady reading in connexion with the clinical work of the five years' curriculum.

The Riviera, Ancient and Modern. By CHARLES LENTHÉRIC, Ingénieur en chef des Ponts et Chaussées. Translated by CHARLES WEST, M.D. Berlin. With Maps and Plans. London: T. Fisher Unwin. 1895.

DR. WEST has done a good piece of work in introducing the present volume to English readers. The book is a most pleasant one, full of interest and of the best kind of information on the subject with which it deals, and it will be welcomed by the philosophic traveller and the many English lovers of the French Riviera. Its scope cannot be better indicated than by the following extract from the translator's preface:—

"It is not as a guide-book, but as a companion to the intelligent traveller, and one who will answer every question as to what the land was in bygone days, as well as what it now is, that I present in an English dress this work of M. Lenthéric. ..... Many holiday visitors know nothing of Nice beyond the promenade, and of Monte Carlo besides 'the rooms' and the concerts, and for them this book will have no attraction. There is, however, a large minority who travel, as Opie said he mixed his colours, 'with brains, sir,' and by such I believe that this book will be prized."

Dr. West, we feel sure, will not be disappointed for it is just the book for the wearied brain-worker travelling in search of health, affording, as it does, the right proportion of intellectual exercise and relaxation. It becomes a duty to the English medical man to acquaint himself, as far as his opportunities allow, with the various characteristics of the many continental health resorts, one or other of which he is so often called upon to recommend to his patients. If unable to visit them himself he will find much valuable information about the French Mediterranean in M. Lenthéric's work; in an even higher degree, if he is fortunate enough to make a personal study of these districts, will he find in it a companion supplying just those intellectual wants in which the ordinary guide-book proves so woefully deficient.

The author's interests are mainly antiquarian and archæological, and on such points he presents an array of facts pleasantly narrated in an easy and very enjoyable style, and the modern aspects of his subject are also well treated from the point of view of the geologist, engineer, and sanitarian. His chapters give many an added interest to even the most well-known and most written-about of subjects, such as the glorious Corniche-road, the Rock of La Turbie, and the olive and lemon groves of Mentone; and on many less worn topics, especially when recalling the ancient occupations of the lands by Phœnicians, Greeks, and others—a vivid narrative

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of the Saracen irruptions may be specially noted—or in his archæological or philological 'speculations, his matter is unique and of the highest interest.

Especially valuable from a medical aspect are the reflections on the influence, direct and indirect, of vegetation and forest growth on the health of the country, the important part these play in protecting the soil from the wasting action of mountain torrents and so in checking alluvial deposits—the precursors of malaria—being clearly traced, together with the opposite evils caused by forest fires and indiscriminate tree-felling.

M. Lenthéric is justly proud of the many improvements carried out in these regions by his countrymen in recent years, and he holds sanguine views as to the immediate good results to be expected from the modern introduction of the Australian eucalyptus tree, views with which our own observation disposes us to concur. We can, with Dr. West, recommend the book as a companion to any who travel through these noble lands, "with brains, sir." The translation is an admirable one, written, in fact, in English, not in translated French; there is a good index, with copious and concise chapter headings, and nine finely executed reproductions of old maps and plans add largely to the value of the volume.

LIBRARY TABLE.

The Galenical Preparations of the British Pharmacopœia. By C. O. HAWTHORNE, M.B., C.M. Glasg. pp. 118. London: J. & A. Churchill. 1895. 4*s.* 6*d.*—This book gives evidence of a praiseworthy effort to deal with the infinite detail of the British Pharmacopœia so as to render the main facts in a form which may be readily grasped and remembered by the average medical student. The author has endeavoured to eliminate many details and to retain only those facts which will be of service in the selection and administration of the various pharmacopœial preparations. General principles are dealt with rather than minute variations, and the result is that students are presented with broad outlines which may be committed to memory, while they must consult the Pharmacopœia or some work on practical pharmacy when they wish to prepare any particular official preparation. Students so commonly find difficulty in acquiring a sense of proportion, in determining what must be learnt and what may be neglected, that this handbook will probably be welcomed by them. It must be understood that, although intended for students preparing for examination, it presents facts in an assimilable form without insulting the subject, the student, and the examiner by jingling rhymes devoid of reason or other "tips" so dear to the crammer, so ephemeral in staying power. The author has succeeded in compressing in brief space a large amount of useful information, and the book appears to be commendably free from errors.

On Gout as a Peripheral Neurosis. By WILLOUGHBY FRANCIS WADE, M.B., F.R.C.P. LOND. London: Simpkin Marshall, Hamilton, Kent, and Co. Birmingham: Cornish. 1893.—We owe the author of this *brochure* an apology for not earlier noticing his interesting contribution to clinical pathology. In it he seeks to explain the reason for the various localised manifestations of gout by referring them to peripheral neuritis, which again may be determined by an external agency, such as strain or pressure. He was led to this opinion by the observation that in cases of typical gouty arthritis the pain is not seated in the joint itself, but in its vicinity, and, further, that there may be very definite areas of tenderness corresponding to the lines of nerve-distribution to the implicated region. The occurrence of pain and inflammation in other parts than joints is easily explained by reference to nerve-distribution, whilst the frequency with which traumatism or chill may evoke an attack of gout is much more easily explained on the neurotic hypothesis than on any other. He shows, by reference to the classical description of neuritis given by Erb, how closely parallel are the symptoms of that disorder with those of an attack of gout; and, whilst recognising the current belief that neuritis may be secondary to gout, boldly advances the converse proposition—namely, that neuritis precedes the characteristic gouty inflammation. There is, we think, a good deal to be said for this point of view, which the author puts forward with all diffidence, but with the hope that it may evoke careful observation upon the precise mode of evolution of an attack of gout. He states truly that uratic deposit in joints is variable in amount and often quite disproportionate to the severity of acute attacks, but he does not thereby question the recognised pathology of gout itself. His thesis is rather that in a peripheral neuritis to which the "gouty" state disposes is to be found the most rational explanation of the arthritic and non-arthritic manifestations that characterise it.

Orotava as a Health Resort. London: Street and Co., Cornhill. Price 1*s.* 6*d.* — The position of the Canary Islands within the area of the trade winds, not far from the African coast and just outside the border of the tropics, causes the climate to be remarkably dry and equable, an almost ideal combination for many classes of invalids. Orotava is the name of a town—or rather two towns—and a valley in the mountainous island of Teneriffe, celebrated for its snow-covered peak and situated 4° south of Madeira. At Orotava the temperature on the coldest winter night does not fall below 50° F. and in the middle of summer rarely exceeds 80°. From May to August there is no rain, and even in the rainy season the amount is so small that the annual average is only about thirteen inches. There are several modern hotels on the island and there is frequent and easy communication between England and Santa Cruz, the landing place for Orotava. The length of the voyage is about six days from London or Southampton, five days from Plymouth, and eight days from Liverpool. Much information relative to Orotava and Teneriffe generally is to be found in the pages of this little book; it is also illustrated with several views of the harbour with the steamers and other places of interest.

MAGAZINES.

The Practitioner continues its warnings to the modern nurse, and, indeed, this class of working woman has been much in evidence of late. There is little fear, however, that the trained, intelligent, and obedient nurse will ever lose her place through the eccentricities of those who sometimes, perhaps, forget that they are not responsible for the patient, but that this responsibility lies with the medical attendant. Dr. Ord continues his lectures on Renal Disease. Sir W. Thornley Stoker writes on Excision of the Knee-joint, and Dr. Arlidge upon the Medical Aspect of Factory Laws and Workers. The hero of medicine for the month is Morgagni, and the medico-literary causerie deals with "Molière and the Doctors."

The Birmingham Medical Review.—Mr. Haslam's two lectures upon the Value of Symptoms in the More Common Diseases of the Rectum are well worth reading, as they draw attention to some points not uncommonly overlooked. Mr. Gilbert Barling contributes a very interesting case of Quiet Necrosis of the Femur simulating Sarcoma.

In *Chapman's Magazine* is a story by Miss Gertrude Kingston called "Nurse Agnes." The medical story written by a lay man or woman is usually a wonderful composition, but Miss Kingston has successfully avoided pitfalls, although she has selected a rupture of the liver with which to afflict her hero.

In the *Veterinarian* is a paper by Mr. Hugh Bell which

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reveals a most alarming state of things. He tested two herds of Ayrshire cows with tuberculin. In herd No. 1, consisting of thirty-six cows, all as "healthy looking stock as any within miles of them," 86 per cent. were condemned. This result was so astounding that three weeks later the tests were repeated, with the same result. In one case the diagnosis was confirmed by a post mortem examination. In herd No. 2, consisting of twenty-five beasts, 44 per cent. reacted.

The Journal of Microscopy and Natural Science: the Journal of the Postal Microscopical Society. Editor: ALFRED ALLEN, Hon. Sec. Postal Microscopical Society. Associate Editors: Professor V. A. LATHAM, M.D. Chicago University; J. STEVENSON BROWN, President Montreal Microscopical Society; and FILANDRO VICENTINI, M.D. Chieti, Italy. Vol. V., Third Series; Vol. XIV., Old Series. London: Baillière, Tindall, and Cox. 1895. Pp. 456.—The present volume of the *Journal of Microscopy* and *Natural Science* contains many papers of exceptional interest and value. We cannot pretend to mention all of them, but we may select a few for special notice. The first of these is a long and carefully written memoir by Dr. F. Vicentini on the Bacteria of the Sputa and Cryptogamic Flora of the Mouth, which contains the results of a long series of observations. It will prove of chief interest to the dental surgeon, but should be studied by every physician and surgeon, since it deals with microscopic appearances with which they ought to be familiar. Mr. C. J. Watkins contributes an excellent paper on the Denizens of an Old Cherry Tree living on the Cotswold Hills, which included Pemphredon lugubris and P. shuckardi, the larva of Melandrya caraboides, a specimen of Pompilus spissus, dead specimens of Calathus cisteloides and Sinodendron cylindricum, and living ones of Cis boleti, C. hispidus, C. nitidus, Anaspis frontalis, and A. fasciata, the larva of Perithous varius, an imago of Omalus auratus, specimens of Crabro chrysostomus, and many others, forty-nine species of thirty-nine genera of twenty-six families having been collected. Mr. J. Tempere supplies a note on the Technology of the Diatomaceæ, especially in regard to the Treatment of Soundings. Mr. H. C. A. Vine gives an account of the Predacious and Parasitic Enemies of Aphides, illustrated by many drawings and especially dealing with the aphidivorous Syrphidæ and Neuroptera. Mr. W. Thomson has written a good paper on the Influence of Light on Life, and biologists will read with pleasure a memoir on the Origin of the Oldest Fossils and the Discovery of the Bottom of the Ocean. Mr. Charles D. Soar gives a description, accompanied by illustrations, of the British Hydrachnidæ; Lieutenant-Colonel L. Blathwayt furnishes an account of the Aphaniptera; and Mr. W. Thomson has a paper on the Study of the Microfungi. Besides these memoirs the volume contains much miscellaneous information excerpted from other works which will be of interest to microscopists and a good bibliography. The volume is a handsome one and reflects great credit both on the editors and on the publishers.

New Inventions.

WIRE-WOVE WATERPROOF ROOFING.

THE "wire-wove" roofing material consists of very stout and hard sheets of papier maché ingeniously combined with steel wire gauze, which both imparts great strength and effectually counteracts the tendency of the papier maché to become warped, bent, or buckled. It was devised by Mr. Douglas Allport eight or nine years ago, and its adaptability to other purposes than that of mere roofing was soon apparent. Experience has proved that a layer of it one-eighth of an inch thick is sufficient for all roofing purposes, as an unsupported sheet of that thickness will sustain the weight of several men. A special paint has been manufactured for painting the sheets and a means of thoroughly waterproofing it has been devised, together with a system of fastening by means of steel bands so arranged that any pressure upon a sheet is borne by the whole of the fastening nails at once. Buildings of this material are constantly being prepared for erection in various parts of the country, being made and partially set up at the works, then taken to pieces, re-erected on the required site, and finished. The material can be made absolutely non-inflammable. It may be mentioned that some of the older forms of roofing sheets made of organic materials were liable to be perforated by sparks from the chimney. For lining the interior of rooms wireless sheets of any required tint are used instead of wood or lath and plaster, and as they have a smooth, waterproof surface it is easy to wash the whole inside of the house—an obvious desideratum in the case of hospitals or wards for infectious disease. Unlike match-boarding, this kind of lining presents no chinks or crevices in which dust or germs may lie undisturbed and it may of course be painted any colour. The sheets for external use have a rough, finely sanded surface, free from the glaze of ordinary paint and having almost the appearance of terra cotta or stone. The governors of the Derby Royal Infirmary have adopted this construction for their temporary operating room and for an ophthalmic ward in their new hospital. A connecting corridor 140 feet long, raised on wooden trestles, is also in process of erection there. The manufacturers are the Patent Wire-Wove Waterproof Roofing Company, 108, Queen Victoria-street, E.C.

THE CASE OF MR. LIONEL SMITH.

WE have been requested by Dr. de Havilland Hall to acknowledge the following further contributions received by him:—

Mr. Simpson Ladell	£0	10	6
Dr. G. Fielding Blandford...	1	1	0
"A Tardy Subscriber"	1	1	0
Mr. Gilbert Barling...	2	2	0
Mr. E. W. Emtage	0	5	0
Mr. Frank Pearce	1	1	0
Mr. S. R. Platt, D.L. (per Dr. George Thomson)	5	0	0

WORCESTER GENERAL INFIRMARY.—The executive committee has decided to celebrate the 150th anniversary of the opening of this institution by a public dinner. Lord Coventry will occupy the chair. The committee has also resolved to recommend the governors to sell out funded stock sufficient to realise £2500, if the public subscribe a similar amount, to erect a nurses' home. Towards this sum Lord Beauchamp and Lord Hindlip have each subscribed £50.

THE VACCINATION QUESTION AT CHELTENHAM.—At a meeting of the medical men of Cheltenham held last week resolutions were passed urging the guardians to carry out the requirements of the Local Government Board, and suggesting that the public vaccinator should attend daily for the purposes of vaccination. These resolutions were read at the last meeting of the guardians, together with a letter from the Public Health Committee of the council. Dr. Hogarth, the public vaccinator, pointed out to the guardians that as infant vaccination had been allowed to lapse he was without a sufficient supply of lymph. He was accordingly authorised to procure a supply of calf lymph. The chairman pointed out that there was nothing compulsory in the matter, but it would give those who believed in the protection of vaccination an opportunity to have it done. Any residents of Cheltenham who have doubts about the efficacy of vaccination should study the statistics recently published of the outbreak of small-pox at Gloucester.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 22, 1896.

IT is gratifying to notice on every hand indications of an uprising among medical men in their own defence. It has not come a moment too soon, and there is still much fear lest it be inadequate to the rescue of the profession from the many dangers and evils which beset it. But evidence of an awakening to the dangers is manifest everywhere. It would not be far wrong perhaps to connect this gratifying fact to some extent with the principle of direct representation conceded, although in an inadequate way, by the Legislature. It is impossible not to see that the working of this principle in the General Medical Council has not only stimulated that body to greater efficiency in the supervision of medical education, but to a greater energy in vindicating the purity of the Register and the sanctity of medical titles. And there are at length signs that the claims of the members of the largest corporation of the profession to a voice in the management of the affairs of their College may possibly ere long be recognised. The medical press must be credited with no small share of influence in the new era of life and power for the profession which seems to be setting in, and we are proud to think that THE LANCET has contributed not a little to the great result. The exposure by our Special Commissioner of the meanness of the various devices for sweating medical men and for turning their labours into a source of commercial profit has been complete. At the same time most encouraging has been his description of the movements set on foot in various places with a view to organising the profession with respect to the proper and considerate treatment of those of limited means and for a policy of refusal to attend on the same terms those who can afford to pay differently—such as the gentleman who claimed to be attended as an Oddfellow for 4*s*. a year although he was a manufacturer paying £600 or £700 a week in wages and took his recreation in hunting. In the same place, our Special Commissioner showed, such was the demoralising degree to which the club system had reached, that it included in its benefits a local brewer, a farmer, nearly all the publicans the druggists and the other tradesmen, the churchwarden, the organist, &c. Of course the demoralisation did not end with these gentlemen in their private capacity. It extended to the Board of Guardians, who proceeded to reduce the salary of the medical officer from £70 to £40. Such things are only possible in a profession which is not true to itself, and one chief outcome of all this exposure must be a strengthening of the discipline of the profession against practitioners who demean themselves by opposing their brethren when they make a stand against meanness and injustice whether inflicted by working men or by employers.

Though the evidence of this uprising of the profession is everywhere to be seen, though, in other words, it is largely local, it is finding expression in its great central societies and associations. The Medical Defence Union is the creation of a few years and derives much of its energy from the provinces. The British Medical Association can scarcely keep pace with the demands of its members for an enlargement of its functions and a greater assertion of its power. Its constitution, in the opinion of some of its members, is showing signs of advancing age, and they are disposed to try the infusion of some younger blood into its veins. Whatever should be the decision on this point, there is room enough in the expanding profession for both the old and the young associations. We are opposed to needless multiplication of associations, but the Medical Defence Union has so justified its existence and has met so specific a want in our perilous profession that a very strong case should be made out for parting with its individuality. There can be no manner of doubt, however, of the wisdom of the fusion of this body with the London and Counties Medical Protection Society. Two separate and distinct associations for the purposes of medical defence are certainly superfluous and, moreover, apt to be misleading with respect to the solidarity of the profession.

After all the use of these bodies is only general and occasional. The real salvation of the profession must come from its members acting together in their respective localities. Nothing has come out more plainly in our special reports of the Battle of the Clubs than the impossibility of applying hard-and-fast rules everywhere. The profession must act locally, and in order to do so it must have local organisations for laying down rules of conduct, making local provisions to meet the case of the working classes without destroying their independence or compromising the dignity of medical practice. The associations of the profession can help greatly. The great corporations of the profession must be appealed to for the use of their disciplinary powers. The medical council will make still further discoveries of its duties and its powers. But if such examples as those of Portsmouth and Eastbourne are followed everywhere there will be little for central associations to do. The great thing is to act with a sense of proportion and moderation, yet with firmness, and never to forget the scientific basis of the profession and of its reputation. No methods of practice can be right which do not take this consideration into account.

THE fifty-seventh annual report of the Registrar-General, just published by Her Majesty's Stationery Office, on the births, deaths, and marriages in England and Wales during 1894 is an interesting document in more than one respect. For, in the first place, it records a higher standard of public health in England and Wales for the year 1894 than has been attained in any year since the commencement of civil registration; and, in the second place, the volume is more complete and apparently more systematically arranged than its predecessors of recent years have been. It also contains certain new features which indicate that Somerset House means to emulate Whitehall in the attempt to promote the study of State Medicine among the members of our profession. The death-rate in 1894 was considerably lower than in any previous year on record—it was only 16·6 per 1000 of the population, and was consequently below the average rate

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for the preceding ten years by more than 13 per cent. In three years only prior to 1894 had the all-England death-rate fallen below 19 in a 1000. The lowest death-rates prevailed in the home counties, and the highest—in no case reaching 19 per 1000—in the manufacturing and mining districts of Durham, Lancashire, and North Wales. In the year 1894 the death-rates at the several age-periods were not only considerably below the mean rates in the previous four years, but were also lower than even the exceptionally low rates of 1888 and 1889. The proportion of infant deaths under one year to registered births did not exceed 137 per 1000, which was lower by 10 per 1000 than the decennial average rate. At all ages of both sexes under forty-five and above seventy-five years the 1894 death-rates were the lowest on record. The mortality in the urban as well as in the rural parts of the country was likewise the lowest hitherto known, the rate in the urban districts being 15 per cent. and that in the rural districts 11 per cent. below the corresponding average rates in the ten previous years. Taking together the seven common zymotic diseases the mortality to which they gave rise in 1894 was lower than in any previous year except 1888. Compared with the average rates in 1884–93 the mortality from every one of the common infectious diseases excepting diphtheria showed a decline. There was a still further reduction during the year 1894 in the mortality attributed to influenza, the rate being equal to 220 per million living, as against rates of 574, 534, and 325 per million in the years 1891, 1892, and 1893 respectively. Amongst constitutional diseases cancer still seems to be gaining ground in England, as many as 21,422 deaths having been referred to it in the year 1894. These deaths give a rate which is the highest hitherto registered. On the other hand, the deaths from phthisis were relatively fewer in that year than in any previous year since 1837.

Referring to the tabular portion of the report we notice several changes which will assuredly be welcomed by those who take special interest in vital statistics. For example, some of the tables appear to have been simplified and rearranged, and the type of a few of them has been considerably improved. This is a process which we hope to see considerably extended in future issues, for there are still many of the tables so heavily set and the type of which is so small that the figures can only be made out with considerable difficulty. In the year 1881 a new system of classification of causes of death based on the nomenclature of diseases prepared by the Royal College of Physicians of London was adopted in the Registrar-General's reports. The change involved many important modifications of the tabular matter, and we observe that in arranging the details of the tables 17 to 22 of this volume, the death-causes published in the reports prior to 1881 have been as far as practicable re-classified so as to be for the most part comparable with the figures for subsequent years. There still remain, however, a few diseases included in these tables in respect of which no satisfactory adjustment has been found possible. The tables here referred to appear to be either entirely new or to have been so greatly modified and extended as to bear but little resemblance to anything that has appeared in former reports. They show the deaths and death-rates from an extended list of diseases for each of the last twenty years, and for "persons" as well as for males and females separately (this is an entirely new feature); and we notice that, with the object of avoiding error, the deaths and the death-rates, severally, are printed in distinctive type, an arrangement which statisticians, official and otherwise, will not be slow to appreciate. At page lxxiv. will be found an appendix to the above-mentioned tables showing in detail particulars of the changes necessitated by the new classification adopted in 1881. It also shows under what headings diseases may now be found which had been classified after the old method in the shorter and supplementary tables of the earlier reports. This appendix is a most useful innovation and will greatly enhance the value of the new tables, which without such explanation would have been difficult to understand except by the initiated.

THE position of the question of the representation of the Members of the Royal College of Surgeons of England on the Council has assumed a very interesting aspect. For several months a committee of the Council, called the Deputation Committee because it was originally appointed to receive deputations from the Fellows and Members of the College, had been pursuing its deliberations. It received a deputation from the Association of Fellows of the College, which formulated several important points of reform which have been published in the columns of THE LANCET, and it received another deputation from the Society of Members of the College, which also formulated its requirements, and these have also been published in like manner. The report of the Deputation Committee to the Council has more than once been postponed. The last cause of delay was the reference of the resolution passed at the annual general meeting of Fellows and Members in favour of giving to the Members of the College eight representatives on the Council to the half-yearly meeting of Fellows for discussion. This resulted in the adoption by the Fellows in meeting assembled of the historical resolution affirming the desirability of according to the Members of the College direct representation on the Council, and this resolution was referred by the Council to the Deputation Committee for consideration and report in connexion with the other matters already before it. Virtually, we believe, the report of the Deputation Committee amounted to a *non possumus*. It adopted none of the recommendations of the deputations from the Fellows or the Members, and assumed an attitude of passive resistance to the resolution passed by a majority of six or seven to one in a meeting of eighty-one Fellows of the College—the largest and most influential meeting of Fellows which has yet been held. This report, of course, was the report of a majority of the committee, the minority having to oppose its adoption by the Council. In this their efforts were successful. The report was received, but we understand that an amendment was carried to the effect that the report of the deputation be not adopted, but that a poll of the Fellows be taken on the question of the direct representation of the Members of the College on the Council. The division was a very close one, and when the amendment became a substantive motion another amendment was moved: "That before a poll of the Fellows is taken the Council do take into consideration at an early meeting the question whether Members should

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or should not be represented on the Council." This amendment was carried by the same narrow majority by which the original amendment to the report of the Deputation Committee was adopted.

From these proceedings it may be gathered that opinion in the Council is very evenly balanced upon the main question of the representation of the Members of the College upon the Council. The loss or gain of a vote on either side may turn the scale. Of the ultimate result there can be no doubt, but the final solution of the question may be delayed if the opposing elements in the Council should temporarily preponderate. This would be a source of sincere regret to us, because the time is most favourable for a settlement. The attitude of the Society of Members has been everything that could be desired. They have contented themselves with thanking the Fellows for passing the resolution and are awaiting in dignified silence the issue of the deliberations of the Deputation Committee and the Council of the College. They are desirous to aid in every way in the establishment and maintenance of harmonious relations between the Council and the Fellows and Members, and if they do not command success not even their most vehement opponents can deny that they have deserved it.

Annotations.

"Ne quid nimis."

THE DIRECTION OF THE ARMY MEDICAL SERVICE.

THERE is a good deal of speculation at the present time as to who is to be the successor to Sir William Mackinnon, the present Director General of the Army Medical Staff, when he vacates that post in May next. It cannot be otherwise than that this should be the case with the officers of the department chiefly concerned, for they must realise that everything depends upon the right man being selected. But looking to the present political aspect of affairs, and to the vast and complicated nature of the relations of this country—with its various colonies and dependencies—with foreign powers, the settlement of this question is one of much public interest. No one can forecast what may happen within the next few years, and it is certain that in any future war every department will be subjected to a greater strain and to a severer test of public criticism than has been heretofore the case. The direction of the Army Medical Department is at all times an onerous undertaking, and the difficulties and responsibilities of the position are certainly not diminishing. What is wanted, then, at the present time especially, is that the best and most capable man shall be selected for the post of Director-General; that he shall, in other words, owe his appointment to his merits—his ability and intellectual qualifications, his character for honesty and impartiality, and the confidence that he has won for himself in these respects. That high official positions have not always been attained by the possession of qualifications of this sort, but by interest or by the nominees of some patron or other to whom they have made themselves officially or socially agreeable or useful cannot, we suppose, be denied. We are, of course, quite aware of the fact that no one with independence and force of character, however just and honest of purpose he may be, can worthily occupy and discharge the duties of such a post and escape unfavourable criticism; but we do hope that on the present occasion a sincere attempt will be made to select the fittest man. Lord Wolseley, the present military head of the army, has publicly announced that all his efforts will be directed to making the army a thoroughly efficient fighting machine, and to selecting the best men for that purpose. Two names have been prominently mentioned as successors to Sir William Mackinnon—viz., those of Surgeon-Major-General H. F. Paterson and Surgeon-Major-General J. Jameson. We have purposely abstained from noticing this subject up to the present time in order that we might institute some independent inquiry of our own in different directions. We may say that the result has been to convince us that both have the reputation of being good officers, each of them having, of course, his own particular friends and admirers. Surgeon-Major-General Paterson, who is Principal Medical Officer at Aldershot, is the senior and is very popular, and, in our opinion, deservedly so. One of the main reasons why medical officers desire to see him promoted to the direction of their service is that he has not served in "the office," meaning by that the head quarter office of the medical department, and that he would consequently bring a perfectly independent mind to the introduction of any reforms he deemed necessary and to the duties and work he would be undertaking. He is an officer with plenty of physical and mental energy and has the reputation of being a man of tact and sound judgment, and in present touch with the service and the practical requirements of the soldier. It is but right to add that both the officers we have named have a high reputation, but the senior in point of service—Surgeon-Major-General Paterson—is, apart from that, best fitted, in the opinion of the medical department, for the post of Director-General, for the reasons we have given.

THE COMPARATIVE NUTRIENT VALUE OF MEAT PREPARATIONS.

SOME correspondents have directed our attention to an article which appeared in *Food and Sanitation* of Dec. 14th, 1895, a journal usually bristling with sensational headings, in which our analysis of a certain meat preparation is impugned. The article is drawn up in the "look on that and on this side of the picture" style. Thus, Valentine's meat juice is stated to be merely "an ordinary meat extract diluted with water, but as far as nutrient value goes the water in which dinner-plates are washed would be about as valuable." Bovril, on the other hand, is spoken of as "a real invalid meat food" in which more has been achieved than the editor of *Food and Sanitation* thought was possible, and on this account we are to have at once a Ministry of Public Health. We make no objection to the laudatory remarks about bovril, as we have reason to believe that of its kind it is an excellent nutrient, but it is of quite a different order from a meat juice that is expressed in the cold; indeed, the two preparations are not comparable. A meat juice expressed in the cold contains the soluble nutrient substances of beef, amongst them being albumin, certain proteids, and hæmoglobin. When such a preparation is heated, therefore, the albumin coagulates, while the clear solution also contains other proteids of nourishing value. Gelatin does not enter into the composition of meat juice expressed in the cold to any appreciable extent, since treatment with hot water is required to extract it. It is present, therefore, to a much larger extent in ordinary extracts. We care not whose preparation is under consideration; so long as it is meat juice expressed in the cold it must *a priori* be a powerful nutrient, depending, of course, upon its degree of concentration. To take one of the inevitable constituents, albumin is able by itself to support the vital processes, and, as Dr. Burney Yeo observes, is the only alimentary substance that can do so. According to a recent analysis of Valentine's meat

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juice it proved to contain 53·30 per cent. of nitrogenous substances in solution, of which exactly a half consisted of matters (proteids, &c.) precipitated by alcohol, and the rest of meat extractives, crystalline principles, &c. Of the matters thus precipitated 1·5 per cent. is pure beef albumin, which is coagulated also on heating the juice. The diluted juice, viewed by the spectroscope, shows the spectrum of hæmoglobin very distinctly. The sample was purchased at the Civil Service Stores, Bedford-street, Strand, by ourselves. Our opinion of this preparation is therefore unaltered, and we are satisfied that what was stated in THE LANCET of Dec. 28th, 1878 — namely, that this preparation was valuable both as a stimulant and food— is perfectly true and justified by analysis, and, what is better, by clinical experience. We challenge *Food and Sanitation* to appoint with our approval an analyst of well-known repute to undertake an independent analysis and publish it, and place it side by side with the one upon which is based the remark that the wash of dinner-plates would be almost as valuable as the meat preparation to which he alludes. We have not the least doubt that this remark would not be thereby substantiated. We should not have referred to the matter at all again but that copies of this article have been distributed broadcast amongst the medical profession, to whom it is a matter of vital importance, of course, to know whether, especially in the treatment of invalids, such preparations may be relied upon. Apart altogether from chemical analysis our readers know from the evidence of experience that meat juices expressed in the cold are of eminent service in the sick and invalid dietary. To condemn such preparations displays a woeful and wilful want of knowledge of common physiological requirements. Oddly enough, in an article on infants' foods in the same issue of this "public analytical journal" THE LANCET is quoted as affording favourable testimony to the merits of a certain malted food which, in the opinion of the editor of *Food and Sanitation*, is ideal and not open to defects which he finds in numerous others which are mentioned.

UNSUCCESSFUL PROSECUTIONS UNDER THE MEDICAL ACTS.

THE Medical Defence Union, which has done so much good with very inadequate Medical Acts, has sustained two reverses at Cardiff which we trust will not be allowed to go unchallenged. The first was in a case against "Dr." Bridgwater, M.D. U.S.A. The stipendiary held that as in every circular put in the defendant was described as "Dr." Bridgwater, M.D. U.S.A., he could not be held as implying that he was a registered practitioner in the United Kingdom. In the opening statement for the prosecution it was said that in some of the circulars the letters U.S.A. were omitted. If this were so, why were these circulars not forthcoming? Apart from this question, the decision of the stipendiary differs from that in a recent case in London, in which, on appeal, it was argued that the letters U.S.A. were a proof that no fraud was intended. But this did not save the quack Ferdinand from a fine of £20. Clearly the *onus probandi* should rest with defendants in such cases. Moreover, it may be pointed out that the letters U.S.A. have no meaning and in themselves excite suspicion. What would he thought of the title, M.D. United Kingdom? As regards the case of the woman, Eliza Foster Macdonogh-Frickhart, charged with wilfully and falsely pretending to be a doctor of medicine, the decision of the stipendiary raises questions of both fact and law. Her counsel argued as if she was temporarily off the register from a mere change of address. On the contrary she was charged[1] before the General Medical Council with endeavouring to obtain practice, &c., by unworthy means, &c., and attracting practice by a system of public advertisements discreditable to a registered medical practitioner. After ample notice she did not answer to her summons. The Council found that she had committed the offence charged against her, that it was infamous conduct in a professional respect, and directed the Registrar to remove her name from the Register. She remains, we presume, M.D. of Zürich. The stipendiary thought that once a doctor always a doctor. But he went further, according to the report in the *South Wales Daily News*, and said: "There is no suggestion here that there is any attempt to mislead the public in any way, because the lady is duly qualified." How can she be qualified when she has been removed from the Register, and that for infamous conduct? Clearly the Medical Defence Union must not leave these cases as they have been left by the decisions of the Cardiff stipendiary.

[1] See Minutes of General Medical Council, May 22nd, 1894. Vol. xxx.

CHOLERA IN EGYPT FROM A FRENCH POINT OF VIEW.

WITH reference to the recent occurrence of cholera in Egypt a writer in *Le Temps* expresses himself as follows:— "Some months since cholera burst forth in the province of Damietta; ought we to look upon the outbreak as a serious one? No! Is it of a nature to justify the fears that are habitually entertained whenever the pestilence makes its appearance? By no means! The present epidemic bears no resemblance to the ill-omened epidemics of former years. The characteristic accompaniments of malignant cholera, such as panic, stampeding *en masse*, the successive and progressive contamination of village after village, of palace and farmhouse alike, the sudden and increasing mortality in every populous centre, the lugubrious processions towards the cemeteries, all are absent; nothing whatever has arisen to threaten the well-being of the beautiful country which the Nile so abundantly fertilises. The cholera at Damietta is happily a benign cholera." Commenting upon the above *Le Progrès Médicale*[1] says: "At the time of writing there are seventeen cases of cholera in Egypt. This is a trifle when we reflect that some twelve years ago 800 persons used to be cut off daily by the epidemic which then prevailed, and that in the course of a single week 40,000 fugitives left Cairo. Amongst the 1034 cases which have been reported since the disease made its appearance last October there is not a single one referring to a European. The native population alone, badly fed, badly cared for, and badly housed, has been attacked. The absence of hygiene is solely blamable seeing that the white inhabitants living under better conditions have remaind intact. Specimens of water from all the canals in the vicinity of the contaminated province were recently analysed at Alexandria, and all were declared to be perfectly pure, wholesome, and free from noxious germs. The epidemic is consequently by no means a grave one, and intending visitors have no reason to be alarmed. It is nevertheless indispensable that the sanitary commission should make an end of this inoffensive cholera as soon as may be and completely, for should one single case be still in existence in April next, when the great heats are at hand, it might readily become the source of a widespread calamity with which it would then be impossible to contend." We need scarcely inform our readers that the Quarantine Board so ably presided over by an Englishman, Mr. Walter Miéville, C.M.G., and known officially as the *Conseil Sanitaire, Maritime et Quarantenaire d'Egypte*, has nothing whatever to do with the internal sanitary affairs of the country. All that concerns the stamping out of epidemic disease within the limits of Egypt itself is in the hands of the Sanitary Administration, of which Dr. Rogers Pasha, D.S.O., is the very

[1] Jan. 25th, 1896.

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efficient director, and which has its headquarters at Cairo. No doubt the present outbreak is a mild one, although the mortality according to the last account—that is, 955 out of a total of 1148 cases treated—does not lend itself to that view; but, at the same time, it is only fair to conclude that the well-directed labours of Dr. Rogers and his energetic assistants have had an influence in preventing the spread of the epidemic. The sanitary officials have not sounded the trumpet, being reticent, after the manner of Englishmen regarding their own achievements; but from our own correspondent's letters and other sources of information it is evident that unceasing vigilance has been the watchword night and day. The results so far are most encouraging, and there is every reason to hope that before long the disease will be thoroughly stamped out. The fact that panic has been so completely absent on this occasion, both among foreigners and natives, clearly shows that the inhabitants of Egypt have confidence in their sanitary defenders.

"UNFIT FOR HUMAN FOOD."

IT is in some degree a consequence of the very ease and liberality with which this country is provisioned that our food-supply should be liable to suffer somewhat in quality. Excess, like poverty, clearly tends to this result, and thus it happens that the honest vendor of perishable substances like meat or fish is a frequent, and even at times a heavy, loser. We can, therefore, easily understand the temptation to which those are exposed whose lot it is to make a living in spite of such loss. Their proneness to err is increased, moreover, by the fact that they are not always themselves competent judges of quality, especially when their decision must be made between merely anatomical alterations and some of the more subtle morbid processes. A few days ago a meat salesman was prosecuted at Worship-street Police Court for having sold the carcase of a cow which was unsound and unfit for human food. The alleged offence does not seem to have been discovered until after the carcase had been disposed of to a sausage-maker. It can readily be understood how mischief of a serious kind might arise from such culpable mismanagement as is suggested by this transaction. In such a case little comfort can be derived from the plea of ignorance. Whether this may or may not suffice to excuse a salesman, it clearly affords no protection to his unsuspecting customers. The intervention of the authorities in the present instance came not a whit too soon, possibly somewhat too late to be fully effective, and the incident is to our mind strongly suggestive of a lack of duly careful inspection of the meat both at the time of killing and while it was for sale in the market.

THE VACANCY IN THE PORTSMOUTH BOROUGH LUNATIC ASYLUM.

FOR some weeks past the press of Portsmouth has been giving circulation to rumours that the medical superintendent of the Portsmouth Borough Asylum was about to resign from ill-health, and that the Asylum Committee intended to advise that without advertisement the post should be offered to the medical officer of health. The rumours have now been verified. The committee has unanimously advised the appointment to the asylum of the medical officer of health, and almost unanimously advised that the salary be what it is now at the end of the present medical superintendent's service—£600 a year. The asylum committee instead of finally deciding the election—as they have the power to do, subject to the consent of the Lunacy Commissioners—have determined to throw the responsibility on the whole council. We think this the wise part of their action. The asylum contains 560 beds. If there is anything in specialism it is in this department of disease, which until very lately has been practically ignored in the education of medical men. It is clearly due to the unhappy inmates of asylums to give them the advantage of a medical chief who has had special experience of mental diseases. This is too obvious to be argued. An appointment of this kind should not be made without advertisement and without care to select the best among a number of candidates. The whole proceeding is unintelligible to us. The medical officer of health is one of the most respected officials in that capacity in England. It is said he deserves promotion. We entirely believe it. But is it promotion to put him out of an office which he fills so well into one for which he has no special fitness? He will only gain £50 a year by the change. Is it kind to him for this paltry sum to put him into a false position and a strange office? We cannot see it. Let the Corporation of Portsmouth reward him by increase of salary, which he well deserves, but do not let them make an incongruous appointment. We appeal confidently to the medical officer of health in this matter. He belongs to the sanitary side of the profession—so specialised that by Act of Parliament no one can be appointed to his office without special experience or a special diploma. Surely the members of such a close department of medicine will be the last to deny that there are branches of medical work which demand special experience, and that lunacy is one of them. We cannot think that this question will ever reach the Lunacy Commissioners for settlement. The council of Portsmouth will hardly endorse the advice of its Asylum Committee.

THE SANITARY CONDITION AND ADMINISTRATION OF LAMBETH.

THE sanitary state of Lambeth has been weighed in the balance by the London County Council and found wanting. Dr. Hamer, the senior assistant medical officer of the Council, has made a very thorough inspection of the district, and in the report which he presented thereon to the Council has laid bare sins of omission on the part of the Lambeth Vestry. The parish in question had at the last census a population of 275,203, Islington with a population of 319,143 being the only metropolitan sanitary area exceeding it in this respect; in fact, Lambeth ranks seventh in point of population among all the sanitary districts in England. In speaking of Lambeth, however, it is necessary, Dr. Hamer tells us, to differentiate between the southern portion where a population under comparatively easy circumstances resides, and a northern portion nearer the river, where reside the poorer classes who have been less fortunate in the struggle for existence. In these two districts there is, as would naturally be expected, a very material difference in sanitary condition; indeed, as Dr. Hamer shows in his report, there obtains an almost uninterrupted decrease in the matter of overcrowding as one proceeds from the river southwards. The number of persons in the several sub-districts of the parish ranges from 209 to 25 per acre and the houses from 23 to 4. Viewed from the standpoint of two districts, an inner comprising the four sub-districts nearer the river and an outer comprising the four more remote, it appears that the inner district had at the 1891 census a population of 85,847 and a density of 167 persons per acre, while the population of the outer district amounted to 189,356 with a density of but 55 persons per acre. Again, Dr. Hamer shows that taking Lambeth as a whole 15·87 per cent. of the population live under the conditions of "overcrowding," while the corresponding percentage of the four inner sub-districts is 31·75. It seems, too, that the percentage of overcrowding in these four sub-districts was in 1891 only exceeded in nine other of the forty-one sanitary districts of London, and the result of Dr. Hamer's inspection shows

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that overcrowding in Lambeth is much in excess of that which he found in Whitechapel and Mile End Old Town. Dr. Hamer visited as many as 1000 different sets of premises in Lambeth, and he seems to have made very careful notes of the conditions which the inspections revealed. Out of 796 dwelling-houses occupied by the working classes he found defects in no less than 519, i.e., 65 per cent., a percentage in excess of that which he detected in his previous inspections of Whitechapel and Mile End Old Town. It is unnecessary to enter into the details of the defects save to remark that the vast majority of them were capable of easy remedy. In the course of his inspection Dr. Hamer observed that a large number of the premises visited had not previously been inspected by the district sanitary inspector; in other words, nothing approaching a system of inspection, such as is made incumbent upon the sanitary authorities by Section 1 of the Public Health (London) Act, 1891, had apparently been attempted. As regards workshops Dr. Hamer reports that no systematic attempt was made by the vestry to deal with the inspection of those places or to carry out the outworkers' order. The number of inhabitants to each sanitary inspector is in North Lambeth upwards of 50,000, and it is perfectly obvious that nothing approaching a properly organised inspection of a district can be effected with a staff of these proportions. As Mr. Shirley Murphy points out in his introduction to Dr. Hamer's report, "a complete re-arrangement of the sanitary administration is undoubtedly needed." The Lambeth Vestry has not taken the inspection of the London County Council in anything approaching a spirit of humility, and they have now attempted partly to discredit Dr. Hamer's report, and partly to justify themselves, but the attempt has in neither case been successful. Mr. Shirley Murphy has replied to, and disposed of, the vestry's comments, and it is to be deplored that the sanitary authorities should have resorted to such schoolboy excuses as, that they are no worse than their neighbours and that other districts besides theirs have failed to provide a shelter. We quite agree with Mr. Shirley Murphy that the vestry have failed to show any inaccuracy in Dr. Hamer's report.

PROFESSIONAL CRIME.

WHAT to do with our criminals has always been a *vexata questio* and will be, we fear, for yet awhile. Any attempt, therefore, to solve the problem should receive careful consideration. Much may be said in favour of the system adopted at the Elmira Reformatory in the State of New York, where prisoners are kept until they are morally, intellectually, and physically capable of earning a living when they are discharged. This system, however, *per se* can only be successfully adopted in the case of those who have a moral sense of wrongdoing and are capable of reformation, otherwise much can be said against it. It can in no way benefit the habitual criminal, and this is the very class in dealing with which the most serious difficulties are met. With reference to this class Mr. R. Anderson, C.B., has an able article in the current number of *Blackwood's Magazine*. He starts by propounding the question, "Why do we imprison our criminals?" and answers it by asserting that no transcendental obligation to punish wrongdoers is recognised by our law as nowadays administered, and that the main consideration with the judge is not the guilt of the criminal, but the need of the community. He then proceeds to argue that habitual criminals should be dealt with by the State in a manner similar to that in which it has dealt with infectious diseases—namely, by removing or checking the causes which tend to produce or spread the disease, patients being isolated until they can mingle again with their neighbours without danger to the public health. Mr. Anperson pleads that the same enlightened principles which now obtain in regard to sanitation may be applied to crime, and advocates the dealing with such criminals as have proved themselves to be morally incapable in a way similar to that in which we now treat lunatics, keeping them under perpetual observation and restraint until cured. That our present methods of dealing with criminals is sadly in need of some reform there can be no doubt, and granting that the welfare of the community is the ruling factor in the problem under discussion the plan suggested by Mr. Anderson is at least logically sound. With the suggestion that the antecedents of all prisoners should be fully gone into and the sentence tempered accordingly, we are in full accord. The whole article will repay careful perusal. Dr. Nathan Oppenheim in the *Popular Science Monthly* (New York) has a thoughtful paper on the Stamping-out of Crime. He asks for the complete isolation of the criminal in order that he may be prevented from perpetuating his species. One of the best indications for hope, he thinks, is the growing effort to study crime accurately, not merely to regard it as an excuse for confining lawbreakers in self-infecting herds, but to seek for the causes of crime, to ascertain all its concomitant conditions, to recognise and classify the criminal in sociological, psychological ways—in the ways of anatomy and physiology.

OUR LIMITED VISION AND THE NEW PHOTOGRAPHY.

WHEN Mr. Samuel Weller on a memorable occasion said, "But, you see, my wision's limited," he uttered a profound and a general truth which at the present time is being very keenly felt and realised. The discovery of the "x" rays is mainly responsible for this. Now that it has been shown that it is possible to take photographs with "dark light" it is obvious that we must attach a deeper and a much wider meaning to the word light than has hitherto been ordinarily understood. The fact is, to paraphrase Mr. Weller's expression, the eye is able to see very little. It can appreciate and turn to account in producing an impression upon the retina but a very limited proportion, barely more than an octave of the waves or vibrations that may actuate the ether or medium which pervades all space. The ear is a more sensitive instrument for sound-vibrations, since most people can appreciate the notes within the compass of a piano, but even here there must be a limit. Some persons cannot recognise the extreme top notes or rapid undulations until the tension of the strings is reduced, when the note is appreciated, having been brought down to the level of the ear's capacity and the vibrations reduced in frequency. In the same way the photographic plate has brought within our vision countless stars which the eye even aided by the telescope fails to see. The sensitive plate, in other words, records infinitely more than the eye, and this property is utilised to bring things within the range of human vision. So is it with the "x" or Roentgen rays, and doubtless there are other rays which have a greater penetrative power. Opacity is, indeed, a phenomenon existing merely for an eye like ours, which if constructed a little differently would enable us to see easily through walls. Perhaps it is a wise provision that it is not so. The fact that photographs may and have been taken with no apparent source of light at all appears to be due to the property of probably most things, of absorbing certain rays and giving them out again in the dark. Thus, if a transparent photographic proof has been freely exposed to the light and then taken into the dark room and placed over a sensitive plate for some time the plate on development will give a distinct negative image. The same thing is illustrated in a stronger manner in luminous paint, which absorbs

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light and gives it out again so that it is visible to the eye in the dark. We have heard some people assert that on reading a paper closely in a railway train which is just rapidly entering a railway tunnel they are enabled to read on for quite a few seconds or so in spite of the darkness. This, however, may be persistence of impression, but it is quite possible that it is due to the paper giving up the light which it has absorbed. The photography of substances embedded in the hand or knee by means of the "x" rays has now become quite a common accomplishment, affording an aid—although it must be confessed a limited aid—to surgical exploration with the view of extracting foreign bodies. Several well authenticated cases of the sort were reported this week at home and abroad. But it is evident that the conditions of the experiment must be vastly improved before the "x" rays can be brought successfully to bear upon surgical operations. Some means of concentrating the rays are wanted, and the time of exposure is necessarily and inconveniently long, according to the degree of thickness of the part operated upon. During this time the Crookes's tube frequently breaks down, and the exposure of a patient keeping perfectly still for, say, three hours is almost an impossible ordeal. We do not despair, however, that the method will undergo improvement which will bring greater convenience to the operator and comfort to the patient. We referred last week to the discovery of Professor Salvioni of the University of Perugia, who, it is reported, has been able to make directly visible the bones of the hand by means of the "x" rays. His procedure appears to be to interpose the object between the source of the rays and a screen capable of being made to phosphoresce, so that the rays which get through actuate the screen to emit light while where the rays are absorbed or stopped as by the bones a clear and true shadow is produced. Such a substance apparently is the platino cyanide of burium. How the screen is conveniently viewed is, however, not quite clear, but we apprehend that further details will be soon forthcoming in regard to the construction of this apparatus, which has received the name of "cryptoscope." It is in this direction, we think, in which the application of the "x" rays may become of signal service. In the meantime it is pretty clear that our views of the nature of light must soon undergo considerable modification. There seems little doubt, however, that the new phenomenon belongs to electricity rather than to light.

MR. JUSTICE GRANTHAM ON VACCINATION.

THE epidemic of small-pox at Gloucester, although not attaining any great proportions, has in more ways than one been a serious check to the prosperity of that city. The county assize has been held at Cheltenham instead of at Gloucester, upon the representations of Mr. Justice Grantham to the Lord Chancellor. The judge had been appealed to to close the public galleries in the court at Gloucester and allow none but those actually engaged to attend the assize owing to the prevalence of small-pox; but he preferred the wiser and more logical course of removing the business of the county assize to a town where the numerous persons summoned to attend would not be exposed to the risk of contagion, a course for which there were precedents. "There was," he added in his address to the grand jury at Gloucester, "another reason which operated in his mind in leading him to take the steps he did, and that was the knowledge communicated to him that Gloucester was one of those towns where, unfortunately, dwelt a great many people who, for the want of a better term, were known as 'anti-vaccinators,' and who resented the desire, as generally expressed in the country, that all children should be vaccinated. When he heard that the local authorities in Gloucester refused to compel people to have their children vaccinated he thought it desirable that the step in question should be taken. The result was that in Gloucester there must be a great many people, children and parents, who were unvaccinated. Under the circumstances they had the food in the town for disease, and they could never tell where and when it would break out; it was not the usual state of health that they would find in a town where vaccination was carried out." In addressing the county grand jury on the following day at Cheltenham Mr. Justice Grantham again explained his reasons for changing the venue, and hoped that "if this had no other result it would make the people of Gloucester think again of the position in which they had placed their town by the unusual course adopted of not enforcing the law. It had been proved to demonstration over and over again that, although vaccination did not bring about complete immunity from small-pox, in the majority of cases it did, and that even when people had small-pox when vaccinated they almost invariably had it much lighter. The introduction of vaccination was one of the greatest blessings God had given to this country, for it had saved the country from the decimation of its population which happened years ago and which was still the case where vaccination was not in force." We commend this outspoken opinion to the consideration of those persons who are so readily influenced by the unfounded and exaggerated statements of the anti-vaccination propagandists, whilst in Gloucester itself the lesson cannot fail to be taken to heart that neglect of recognised precautions to avert small-pox entails not merely much physical suffering but—and this is often a stronger argument still—financial loss.

A QUACK DOCTOR WITH "ONE OR TWO ASSISTANTS."

THE people of Liverpool will not be much pitied if henceforth they believe too much in so-called "dispensary doctors." They will do well to demand the name and qualifications of such gentlemen. The history of one person—Thomas Rowland Townson—who was regarded as a "dispensary doctor," but who withheld his name from patients and contented himself with labelling his premises "Dispensary" with hours of attendance—is quite a little novel in its way. It shows how, without a medical title, a man may succeed in conveying to the public—at any rate, to the poor who employ him—that he is a regular practitioner and thoroughly qualified. This was the impression produced on the deceased, Tom Phelps—the circumstances of whose death were investigated last week by the deputy coroner of Liverpool, Mr. Gibson—and on all his friends. The cause of death was found post mortem by Mr. Foulston to have been abscess of the right lung. A verdict of "Death from natural causes" was brought in, but the foreman said the jury thought the "so-called medical man should be censured very severely if the law could not touch him. Such people ought to be put down." Of course they ought; if public prosecutors did their duty they would have been put down long since. The coroner acted in accordance with the wishes of the jury, and administered a very severe rebuke. But in the present state of the law there is no security that Townson will not soon resume his practice and have a principal, as he sometimes seems to have, or even "one or two assistants," as he had when he carried on quite a large practice for ten or twelve years at Everton. This was not the first time he had been before the coroner. He remembered being so in 1892. Since then he has been in London. He was by no means confined to medical practice. He had been a commercial traveller, a purser's clerk, and also engaged in the corn trade. But though far too able a man to be restricted to one profession,

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the dispensary business was his favourite one, and when he was unfortunate in business in London he readily returned to Liverpool "at the request of a well-known medical man who wanted him as an assistant." He took to the dispensary business again to get a living and "as it was one of those businesses which could be started without any money." The reason he gave for withholding his name from patients was that "a gentleman was about to join him in practice whose name would be put up." Such revelations as these ought to facilitate the amendment of the Medical Acts. The coroners of the country would do well to forward accounts of all such investigations to the Home Secretary.

YELLOW FEVER AT THE CANARY ISLANDS.

THE medical authorities of the Canary Islands have issued a proclamation announcing the infection, by yellow fever, of Palma, one of the group. No vessel from there will be allowed to communicate with any of the other islands. This decision was arrived at in consequence of the following facts. A Spanish vessel coming from Havannah, having had three fatal cases during the voyage, was placed under observation for three days at Palma, where most of the passengers intended to disembark. During this period another death from yellow fever took place on board, whereupon the authorities ordered the captain of the contaminated ship to proceed to Vigo in order to undergo regular quarantine. The passengers on hearing this disagreeable news at once mutinied, and, being 800 in number, succeeded in making good their landing notwithstanding the opposition of the island police. It is not stated whether any steps have been taken to inflict punishment on the mutineers.

THE LONDON COUNTY COUNCIL AND THE WATER BILLS.

SOMETHING definite has at length been done by the London County Council in regard to the Water Bills, and a resolution which failed to be carried nearly six months ago by a majority of one has now been passed, strangely enough, *nem. con.* In effect this is a step towards the acquirement by purchase of the water companies' undertakings, and, of course, the Staines storage scheme will be strenuously opposed. The report of the Joint Parliamentary and Water Committee—the keynote of the resolution—contained the recommendation, "That notice be given of the second reading of the New River, Chelsea, Grand Junction, East London, West Middlesex, and Kent Waterworks (Transfer) Bills, but that the House of Commons be asked to consent to the adjournment of the second reading; and that, in the case of the Southwark and Vauxhall and Lambeth Waterworks (Transfer) Bills the reference to a committee of the House of Commons be deferred." The question of deriving a fresh supply further afield is down for discussion next week, when the Welsh scheme will be submitted. This debate should be instructive and will be looked forward to with keen interest.

"ANTAGONISM" TO SMALL-POX, BY PROPHYLAXIS AND BY RIOT,

A LETTER addressed to a correspondent in the anti-vaccination city of Gloucester by Mr. Edgar Crookshank expresses the opinion that vaccination has a transient antagonism to small-pox, but the writer adds that his advice as to coping with the disease, which is epidemic in the city, is "Isolate, isolate, isolate." Now it appears that in Stroud, which, like Gloucester, contains many who, pending danger from actual small-pox, have professed disbelief in the protective or "antagonistic" value of vaccination, an attempt has been made to "isolate" instead. The result has been disastrous. As the ambulance containing the first small-pox patient was passing through Bisley to the hospital, which is extremely well isolated, it was met at midnight by a mob, and after a scene of riot the unfortunate patient had, many hours later, to be driven back to a common lodging-house in Stroud, where he ultimately died. But the terror of small-pox in this non-vaccinating union seems to have been something resembling the terror which the ignorant Russian peasants have of cholera. The following night the hospital building was besieged, wrecked, and burnt down. Oakridge, where the hospital is situated, has since then been in possession of a large body of police, and a number of respectable men were at the recent assizes convicted and sentenced to terms of imprisonment with hard labour for taking part in the affair. We are deeply sorry for these unfortunate people, who, having apparently been taught that vaccination was neither antagonistic to nor protective as to small-pox, seem to have had a perfect horror lest it should get a hold amongst them. How differently well-vaccinated persons would have influenced these people. The case is, from the administrative point of view, a very serious one, for it would never do to allow individuals to thwart the action of the properly constituted authorities who have statutory duties in connexion with the protection of public health, even though it could possibly be contended that the unvaccinated ran altogether exceptional risk from the action proposed.

A HARD CASE.

Le Scalpel, a very ably edited Belgian medical journal now in its forty-ninth year, relates the following case as a warning to surgeons against *trop de zèle*. A practitioner of Brussels had a patient who was suffering from a uterine affection. A specialist having been consulted curettage was recommended, and agreed to by both the woman and her husband. She accordingly entered an institution in order to undergo the operation, but while it was in progress the surgeon became aware, after dilatation of the cervix uteri, that he had to do with carcinoma. The patient being under the influence of an anæsthetic and the husband absent their consent could not be obtained; but the operator nevertheless decided to perform hysterectomy on his own responsibility. All at first went well, but unfortunately the woman died subsequently from hæmorrhage, whereupon the husband sued the practitioner, claiming damages to the extent of 50,000 francs for the loss of his wife. The Ministry of Justice came to the conclusion that 5000 francs would suffice; but at the time of writing judgment had not yet been pronounced. The case points to the inadvisability of performing such an operation as hysterectomy without the consent of the patient and her husband having been previously obtained. In the above case there is no reason why the operator, having ascertained the nature of the disease after dilatation of the cervix, should not have waited a few days before proceeding to remove the uterus.

THE REGISTRATION OF PLUMBERS.

IT is satisfactory to see among the private Bills to be introduced into Parliament during this session one that deals with the registration of plumbers. The necessity for some assurance of the efficiency of a class in whose hands the health of the public so largely rests cannot be too much insisted upon. It is vain, indeed, for county councils and local boards to frame by-laws for the protection of the public and to maintain a costly army of inspectors at the public expense unless the plumber, who is the man that eventually applies his own interpretation of these regulations to our houses, is duly qualified. The plumber must not only be competent to efficiently execute the practical part of the work, but be able to appreciate the theoretical

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part also, as unless he can do this it is impossible for him to take an intelligent interest in his occupation. The Plumbers' Company, who for many years have carried on a system of registration, are the original promoters of the Bill, which has been backed by the following gentlemen:— Mr. Lees Knowles, Earl Compton, Mr. Dixon, Dr. Farquharson, and Mr. Sexton. The Bill asks for additional powers to render the present system more efficacious. The disciplinary powers asked for would seem to be much the same in character as those granted in the Dentists' Registration Act of 1878. The advantage of granting some authorised measure of registration or licence to men who have passed a suitable examination is very apparent. The renewal of such licence or diploma annually will be a means of throwing a largely increased share of responsibility directly upon the artisan, as any reported serious deficiency on the part of a registered man would naturally form a matter of inquiry upon an application for a renewal of his licence. The Bill is one that should, and doubtless will, command the support of all parties in the House.

THE SALE OF POISONS.

AT Marylebone Police-court Herbert Ensel Carne, druggist, Wigmore-street, was summoned for selling strychnine to Julia Hadler, who was unknown to him and had not been introduced by someone of whom he had knowledge. It appears that Hadler was housekeeper to Mr. Stonham of Harley-street. She applied for some poison to kill mice. The defendant said that, on being told she lived at Mr. Stonham's, he believed that she came for Mr. Stonham, whom he knew, and that he feared if he did not supply the poison Mr. Stonham might be angry. He entered the sale as required by law. Mr. Curtis Bennett, the presiding magistrate, ruled "that he (Mr. Carne) did not know either the woman's name or address, and had acted merely on the supposition that he knew her," and fined the defendant 10*s.* and costs. We entirely subscribe to the magistrate's decision, for it is impossible that the regulations concerning the sale of poisons can be too rigidly enforced. At the same time the offence against the Act was not of the worst description. Mr. Carne was guilty of negligence, it is true, but there is some extenuation of his fault in the fact that he supposed his knowledge of Mr. Stonham justified him in selling the article.

SHEFFIELD AND ITS HEALTH OFFICER.

IN the interests of Sheffield we regret that so reasonable a motion as that by which the health committee proposed, by increments of £50 a year, to raise Dr. Harvey Littlejohn's salary as medical officer of health from £500 to £750 has for the moment been defeated in the council. Dr. Littlejohn has held his office for four years, and this term is already in excess of that for which some of his predecessors continued to hold the post of health officer. Some have secured much better posts, and, as one speaker observed, it is not policy for a large borough to change its health adviser every few years because the post comes to be not worth holding. We admit that when a man of real ability is appointed the experience of Sheffield, which continues largely to increase in population, becomes of very great value; but Sheffield would do well to encourage those who have acquired matured experience to stay with them. There are, happily, many more better paid posts than those which were enumerated at the recent meeting of the Sheffield Town Council; and we feel confident that a Sheffield health officer of marked ability and standing would have chances in procuring one or other of such appointments beyond those of many other applicants. We hope, however, that before another of the many changes which have been made as to this in Sheffield takes place the town council will support their health committee in the very proper proposal which they make.

THE CAMBRIDGE "M.C." DEGREE.

THERE appears to be some confusion about the title of this degree. In the statutes of the University of Cambridge the degree is called "Master of Surgery," and the Bachelor's degree is called "Bachelor of Surgery." These titles are used in the University of London, "Bachelor of Surgery" or "B.S.," and "Master of Surgery" or "M.S." The initials, however, of these titles Latinised may be, and often are, used. Thus, in the universities of England and Ireland (except those of London and Cambridge) "B.Ch." stands for Bachelor of Surgery and "M.Ch." for Master; and in Scotland "Ch.B." stands for Bachelor of Surgery, and "Ch.M." for Master of Surgery. In Cambridge the custom is to indicate the titles by "B.C." and "M.C."

THE CARDIFF SCHOOL BOARD AND VACCINATION.

WE mentioned last week that the school board authorities at Cardiff had declined to accede to a request made by the Vaccination Committee of the board of guardians to allow the public vaccinators to inspect the children's arms in order to discover those who were unvaccinated. It is with some surprise that we learn that this refusal was made on the advice of the four medical members of the board, one of whom considered that such action would be an infringement of the liberty of the subject and likely to prejudice the cause of vaccination. Cardiff is threatened with a visitation of small-pox, and this is how the efforts of its authorities are checked in their endeavours to protect the community from its ravages. Perhaps if one of their children were to import the disease into a board school the extraordinary opinion elicited, we are sorry to say, from medical men, would be reversed, and no time would be lost to enforce vaccination on those attending the schools. In consequence of this refusal of a very reasonable and proper request the alternative costly method of a house-to-house visitation was suguested by the vaccination authorities, but this proposal has been rejected by the guardians on the score of expense. We imagine that similar reasons to those advanced at the school board would hold for declining to examine the throats or skins of children in the case of an outbreak of diphtheria or scarlet fever.

AT the next meeting of the Neurological Society of London, to be held at 20, Hanover-square on March 5th, at 8.30 P.M., it is proposed to have a discussion on the Visual Areas of the Cerebral Cortex. Dr. Sharkey, Dr. Ferrier, Dr. Turner, and Professor Schäfer will take part in the discussion on "Three cases bearing on the subject, including one in which there was a lesion of the angular gyrus on both sides," and "Experimental results bearing on the question"; other members wishing to do so are invited to communicate with the hon. secretaries, Dr. F. W. Mott and Dr. J. Risien Russell, at 4, Queen Anne-street, W.

AT the close of the discussion on the two papers on Renal Pain which are to be read by Dr. Ralfe and Mr. Hurry Fenwick before the Medical Society of London on Monday next, the 24th inst., a demonstration of the methods employed in producing the new shadow photographs by Roentgen's "x" rays will be given by Mr. Sydney Rowland, B.A. Photographs of a simple case will be taken to more fully illustrate the method.

THE degeneracy of the criminal both physical and mental, his proneness to disease, and the ill-effects of prison discipline, are frequently made the subject of adverse comment. Notwithstanding this, the health of the London criminal

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seems to be fairly satisfactory, if we may judge from the fact that no death has occurred in Pentonville Prison for over twelve months.

WE are glad to see that Congregation has approved the preamble of a statute which provides for bringing the Medical Faculty of the University of Oxford and the Radcliffe Infirmary into closer relationship. The statute also provides for the pathological department of the infirmary being placed under the Regius Professor of Medicine.

MR. J. KNOWSLEY THORNTON will deliver the second Hunterian Society's lecture on Wednesday, Feb. 26th, at 8.30 P.M., in the theatre of the London Institution, Finsbury-circus. The subject will be the Lines of Advance in Abdominal Surgery. Members of the profession are cordially invited.

THE University of St. Andrews has conferred the degree of LL.D. upon Dr. G. W. Balfour and Dr. Andrew Smart, both of Edinburgh. Dr. Smart is well known for his valuable researches into the cause and cure of rinderpest, and Dr. Balfour's treatise on "The Senile Heart" is a classic.

SURGEON-CAPTAIN GEORGE HILLIARD, who attended Prince Henry of Battenberg in his last illness, has been personally decorated by the Queen with the Order of the Companionship of St. Michael and St. George.

H.R.H. THE DUCHESS OF ALBANY will preside at the reopening of the wards of the East London Hospital for Children on Wednesday, Feb. 26th, at 3 P.M. precisely.

THE annual report of the Local Government Board has just been issued. It deals, as usual, with a multiplicity of subjects which it will be incumbent upon us to notice.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on the 13th inst., the President, Mr. CHRISTOPHER HEATH, being in the chair.

The Council decided to present an address of condolence to Her Majesty the Queen and H.R.H. Princess Beatrice on the occasion of the death of H.R.H. Prince Henry of Battenberg.

The President stated that he and the Vice-Presidents and the Secretary had represented the College at the funeral of Lord Leighton and had expressed the sympathy of the Council with the Royal Academy.

The Council accepted the following recommendations of the Committee of Management:—

1. That the High School, Nottingham, be added to the list of recognised places of instruction in chemistry, physics, and practical chemistry.
2. That Mr. Thomas Cooke's course of Operative Surgery be recognised as fulfilling the requirements of the regulations for the present year on the same conditions as heretofore.
3. That graduates in Medicine or Surgery of Foreign Universities recognised by the Examining Board in England be admitted to the Final Examination on the same conditions as colonial graduates (paragraph IV., section III., of the Regulations).
4. That in case of other graduates than those of the Universities at present recognised the Committee be empowered to admit them under similar conditions on being satisfied that the requirements of the Examining Board in England have been fulfilled.

The Committee on the Dental Surgery Examinations presented a report in which they express the opinion that it is desirable that the teachers at the three schools of Dental Surgery in London—viz., the Dental Hospital of London School of Dental Surgery, Guy's Hospital Dental School, and the National Dental Hospital and College—should be afforded the opportunity of expressing their opinion upon the proposed alteration, and therefore recommend to the Council that for this purpose a copy of the scheme drawn up by the Board of Examiners in Dental Surgery should be sent to the Dean of each of those schools.

As reported in the last number of THE LANCET, the report of the Deputation Committee was received and the Council resolved: "That before the Fellows are addressed upon the subject the Council do take into consideration at an early meeting the question whether Members should or should not be directly represented on the Council."

Mr. Reginald Harrison was appointed Bradshaw Lecturer for the ensuing college year.

The Council decided to appoint at the next meeting a representative of the College on the General Medical Council, as Mr. Bryant's appointment as representative will expire on March 12th, 1896.

The Secretary read a letter, dated Dec. 21st, 1895, addressed to the President from Mr. Maurice Joly, M.R.C.S., forwarding a copy of a petition, signed by himself and other holders of British diplomas in the Colony of Mauritius, praying the Home Government "that the preference, when possible, for Government appointments in this colony be given to holders of British diplomas," and asking the President, on behalf of the petitioners, to use his influence in support of this principle. The President stated that, having previously received a letter of similar purport from Dr. J. I. Paddle, a Fellow of the College, residing in Mauritius, he had written to the Secretary of State for the Colonies expressing a hope that he would give his favourable consideration to the matter.

It was resolved that on application to the Secretary recognised reporters of the public press be admitted to the half-yearly meetings of the Fellows.

A letter was read from Mr. H. Percy Dunn, forwarding a copy of a resolution of the Committee of the Association of Fellows inviting the attention of the Council to the subject of the admission of reporters to the half-yearly meetings of Fellows. It was resolved that Mr. Dunn should be informed that the matter had already been decided.

THE ASHANTI EXPEDITION.

WE are pleased to report the safe arrival in England of our Special War Correspondent from Ashantiland. He returned from Cape Coast Castle in the s.s. *Batanga*, and has quite recovered from a severe attack of African fever which he contracted at Akusirem. This was a wretched malarious spot where no proper supply of drinking-water could be obtained. Our representative was detained at this place by the exigencies of the service for four days prior to the arrival of the Headquarter Staff and troops. However, Surgeon-Colonel Taylor, Principal Medical Officer, on reaching Akusirem, immediately condemned its selection as a rest camp, and by orders it was evacuated by everybody within a few hours of his decision being made known to Sir Francis Scott.

We quote the following paragraph from our esteemed contemporary, the *Army and Navy Gazette*, with every sentiment of accord with its generous expressions:—

"Our most formidable foe in the recent West African campaign has been the dreadful climate. Our truly dangerous and insidious enemy, although fatal in notable cases, has been on the whole ably combated by the medical officers and service. These officers appear to have been well selected, and have evinced zeal and capability, creditable to all concerned—to the chosen and chooser. As the Medical Department of the Army has recently been subjected to severe criticism it is only fair to notice that when submitted to a severe ordeal, as undoubtedly was the late Ashanti expedition, the authorities responsible during a very anxious period acquitted themselves most admirably—results proving how perfect the arrangements were—both at home and on the theatre of action, how wise and comprehensive the forethought, how energetic the execution of trying duties. In this connexion a correspondent, a combatant officer, writes: 'I am bound to say that I never saw anything to equal the unwavering devotion of all ranks of the medical staff. Day and night have I seen the doctors here labouring to save life. They were simply a band of heroes, and I only wish that some of their detractors and blackballers in Service clubland could have been here to have seen for themselves what England's soldier doctors can do when put to the test of service. On the principle of honour where honour is due, I trust you will allow me to say that Surgeon-Colonel Taylor and his staff are entitled to every credit, and this, I trust, will be accorded them officially, as I can answer for it it is unofficially throughout this force.'"

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THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER VIII.

The Founding of THE LANCET.—*Its Purposes and Principles as revealed in the Original Preface.—Contents of the First Number.—The Promises of the Preface Fulfilled.*

THE first number of THE LANCET was issued on Oct. 5th, 1823, which was Sunday. It bears the imprint "Printed and published by G. L. Hutchinson, at THE LANCET Office, 210, Strand, London, where all communications for the editor are requested to be addressed (post paid). This work is published at an early hour every Saturday morning, and sold by Knight and Lacey, Paternoster Row, and by all booksellers in the United Kingdom." It is a fact significant of the stormy career upon which the new paper at once embarked that the names of the printers and publishers were omitted from the imprints after the second number. The names reappear on the title-page to the second volume, and the connexion of these agents with the paper is proved to be existent in 1825 by the unpleasant circumstance for them that they were made defendants in a case shortly to be mentioned and of the gravest importance not only to Wakley but to the literary world—the case of Abernethy *v.* Hutchinson, Knight and Lacey; but the future defendants obviously did not seek from week to week to share in the notoriety that THE LANCET rapidly began to enjoy. The editorial office at 210, Strand was a room in the printing establishment of Messrs. Hutchinson and Co., whose premises stood on the south side of the thoroughfare nearly opposite St. Clement Danes' Church, and consequently about fifty yards only from Wakley's private residence in Norfolk-street. From this it will be gathered that the true editorial office was Wakley's house, the address at 210, Strand being only given to preserve for the editor some measure of anonymity.

The preface in which Wakley defines with boldness and some ingenuity his intentions in coming before the medical world with a new journal is given below. The boldness is shown in a manner which in these days it is hard to appreciate, for the vested interests upon which his prefatory words declared deliberate war have so long disappeared from the history of the profession that we can hardly realise that they ever had their monstrous being. That the great hospitals of the metropolis were managed in the interests of a few rather than of the community at large seems to us now incredible. Yet so it was. A few persons through interest or purchase obtained the appointments and became at once pledged to dispose of these appointments by similar methods when the time should arrive. The medical profession as a body were wronged by their leaders. They paid for general education and special instruction which they did not obtain; they were examined under conditions which did not sift the grain from the chaff, so that the general intellectual status was perforce low; and they had no voice in the election of the rulers who thus mismanaged their affairs and misappropriated their fees. The ingenuity is shown by the temperate manner in which the war is declared and the large scope of the policy indicated. Not a word is said in abuse of persons flourishing under a corrupt system. Their words as theorists and their acts as clinicians are to be made public; if they object it must be for interested reasons. But it is assumed that, being the men of distinguished light and leading that they should be, they can have no motive for desiring the shelter of the bushel; while the publicity promised for them is not to satisfy any narrow curiosity, but to benefit the medical profession, and therefore the world at large, by furnishing an opportunity to the rank and file of that profession of remaining in intellectual touch with their leaders.

Preface to No. 1, Volume I., of THE LANCET.

(Reprinted in the second edition, but not in subsequent editions.

"It has long been a subject of surprise and regret that in this extensive and intelligent community there has not hitherto existed a work which would convey to the Public, and to distant Practitioners as well as to Students in Medicine and Surgery, reports of the Metropolitan Hospital Lectures.

"Having for a considerable time passed observed the great and increasing inquiries for such information, in a department of science so pre-eminently useful, we have been induced to offer to public notice a work calculated, as we conceive, to supply in the most ample manner whatever is valuable in these important branches of knowledge; and as the Lectures of Sir Astley Cooper, on the theory and practice of Surgery, are probably the best of the kind delivered in Europe, we have commenced our undertaking with the introductory address of that distinguished professor given in the theatre at St. Thomas's Hospital on Wednesday evening last. The Course will be rendered complete in subsequent numbers.

"In addition to Lectures, we propose giving under the head, Medical and Surgical Intelligence, a correct description of all the important Cases that may occur, whether in England or on any part of the civilised Continent.

"Although it is not intended to give graphic representations with each Number, yet we have made such arrangements with the most experienced draughtsmen as will enable us occasionally to do so, and in a manner, we trust, calculated to give universal satisfaction.

"The great advantage derivable from information of this description will, we hope, be sufficiently obvious to everyone in the least degree conversant with medical knowledge; any arguments therefore to prove these are unnecessary and we content ourselves by merely showing in what directions their utility will prove most active.—To the Medical and Surgical Practitioners of this City whose avocations prevent their personal attendance at the Hospitals—to Country Practitioners whose remoteness from the head-quarters, as it were, of scientific knowledge leaves them almost without the means of ascertaining its progress—to the numerous classes of Students whether here or in distant Universities—to Colonial Practitioners—and, finally by adding to the stock of useful knowledge of every individual in these realms. In this attempt we are well aware that we shall be assailed by much *interested* opposition; but we will fearlessly discharge our duties. We hope the age of '*Mental Delusion*' has passed and that mystery and concealment will no longer be encouraged. Indeed we trust that mystery and ignorance will shortly be considered synonymous. Ceremonies and signs have now lost their charms, hieroglyphics and gilded serpents their power to deceive. But for these it would be impossible to imagine how it happened that medical and dietetical knowledge, of all other the most calculated to benefit Man, should have been by him the most neglected. He studies with the greatest attention and assiduity the constitutions of his horses and dogs and learns all their peculiarities; whilst of the nature of his own he is totally uninformed and equally unskilled as regards his infant offspring. Yet a little reflection and application would enable him to avert from himself and family half the constitutional disorders which affect society; and in addition to these advantages, his acquirements in medical learning would furnish him with a test whereby he could detect and expose the impositions of ignorant practitioners."

The last paragraph of this preface conveys in telling words the real purpose of the new paper. THE LANCET was devised to disseminate medical information primarily, and incidentally to make war upon the family intrigues and foolish nepotism that swayed the elections to lucrative posts in the metropolitan hospitals and medical corporations by letting the flooding light of publicity upon hole-

[1] Chapters I., II., III., IV., V., VI. and VII. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, and 15th respectively.

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and-corner mischief in either class of institution. The first was the veritable object of Wakley's paper, and he never lost sight of it; but it may be necessary now and again to insist further upon this point, because his more bellicose task of fighting the opponents of progress, being so much more sensational in its developments, necessarily attracted wider attention than his beneficent schemes for post-graduate education of the profession by the publication of addresses and hospital reports, and for the amelioration of the educational condition of the student. Indeed, while he remained constant to his original design of supplying information, almost every passage in his life for the next ten years that had its origin or took its colour from his connexion with THE LANCET goes to prove that he considered himself to be under a mandate from the profession at large not only to keep them well posted in the scientific side of their work, but to see that the rights of the general body of practitioners were not infringed by a particular set of persons. This attitude it was that prompted him to violent attacks upon individuals whom he considered to oppose the progress of the cause he had not adopted, but invented; this it was that made him so intolerant to the contemporary medical press, which was written to please the eminent few rather than the profession at large; and this it was that was responsible for all the good that arose, directly or indirectly, from the founding of THE LANCET, as it was responsible for certain errors of taste and judgment which marked the early career of the paper. An eloquent man of passionate convictions is not always prudent in balancing his phrases; a young editor with a good cause and no one to supervise his manuscript is not always mincing in his epithets. There were things written in the early numbers of THE LANCET that would not have appeared had the editor been a man of wider experience; but the harm that they did was small and recoiled chiefly upon Wakley, who was never afraid to meet his liabilities, while the value of his fearlessness and ardour to the cause of reform was incalculable.

The contents of the first number of THE LANCET should now be enumerated as showing how far the editor proposed to carry out the promises of his preface. A surgical lecture by Sir Astley Cooper, Sergeant-Surgeon to the King, occupied the place of honour. This lecture was preceded by a paragraph which gives us some idea of the position held by the eminent and eloquent surgeon at that time:—

"At half-past seven the Theatre (the theatre of St. Thomas's Hospital) was crowded in every part by upwards of four hundred Students of the most respectable description; in fact we never before witnessed so genteel a Surgical class: the sight was most pleasing, for they all appeared gentlemen of cultivated manners and good education."

A class of four hundred! When it is remembered that all these students had paid fees of three guineas and upwards, and that the greater part of the money so collected belonged to the lecturer, it will be seen that a successful hospital lecturer occupied in those days not a bad pecuniary position. And this fact explains both the eagerness of the senior men to be succeeded by their friends and their relations, and the absolute righteousness of Wakley's contention that only the best men should hold such posts. The amiable reference to the demeanour of the audience emanated from a certain editorial prudence we are bound to believe. The new journal was partly addressed to the students, and it was the design of the founder to make the grievances of this class a prominent feature in his arguments for medical reform, therefore it would be but ordinarily civil to put them in good conceit with themselves. The next article is headed "Politics," and its alternative title is "Enlightened Liverymen." It has no medical interest at all, but is a short display of Wakley's vehement and occasionally truculent literary style when dealing with those opposed to him in thought. Of the younger Pitt Wakley speaks as follows:—

"His admirers, in rapture, called him a 'boy-statesman' in his twenty-third year; and in his forty-seventh year he was still the same; still the official coxcomb, running after wild impracticable schemes, regardless of everything but the gratification of his own senseless, remorseless, and petty ambition."

This is hardly an accurate or temperate account of a patriotic statesman and a great fiscal politician, who guided our country autocratically, perhaps, but unselfishly and splendidly in times of her severest need. It may be taken for granted that William Cobbett inspired the sentiments, though Pitt, the creator of Peers, was not likely to be a grateful personality to the editor of a journal directed against the abuse of oligarchical privileges.

Then follows a paragraph headed "Dr. Collyer," containing an innuendo against that gentleman's character which gained double force from the fact that the subject was a well-known dissenting minister. Next we have three columns entitled "The Drama," in which Elliston's acting in the *Rivals* at Drury Lane and Kemble's in *Much Ado About Nothing* at Covent Garden come in for favourable notice. Then we come to an important department, entitled "Medical and Surgical Intelligence." It contained reports of three cases from a clinical point of view—viz., a Case of Anasarca, a Case of Hydrocephalus, and a Case of Hydatids of the Liver; a long reply from Mr. Henry Earle, assistant surgeon to St. Bartholomew's Hospital, to Sir Astley Cooper, who had, a little hastily, attempted to controvert his junior's views on the union of Fractured Femur; and two editorial articles, one entitled Obstruction of Blood in the Lung, and the other the Fatal Effect of Fear. In this department Wakley borrowed largely from his contemporaries. The first clinical case was communicated to his columns specially, but the second came from the *London Medical Repository* and the third from the *Edinburgh Medical and Surgical Journal*. Mr. Henry Earle's letter was a judicious reply to a ridiculous accusation from Sir Astley Cooper. The great Guy's champion said that the surgeon from St. Bartholomew's took a favourable view of the chances of union of a fracture of the cervix femoris so as to exalt the practice of St. Bartholomew's Hospital where the prognosis in this injury was good at the expense of Guy's where it was bad. The letter was addressed to the Editor of the *London Medical Repository*. Of the two editorial articles only the second is original. It is an interesting little account of a case where a patient at the London Hospital died suddenly while an operation—of course, without the production of anæsthesia—was being commenced upon him for the ligature of a femoral aneurysm. Next we find a column headed "Medical Extracts." These are short, practical remarks on treatment and pathology derived from the lips or written works of Abernethy, Wilson, and Hamilton. The germ of a great idea lay hid in the next article, entitled "The Composition of Quack Medicines." In this we have the results of an analysis of Dalby's Carminative, Daffy's Elixir, and Spelbury's Antiscorbutic Drops. A batch of newspaper extracts follow, whose force and point are not very obvious to modern readers; and the number closes with a reprint of an open letter from Charles Lamb to Robert Southey, Poet-laureate, which appeared in the *London Magazine*. The number had thirty-six pages in all, and no wrapper.

As will be seen, the promise of the preface was very fairly carried out in the first number. An excellent clinical lecture followed by records of interesting cases in surgery and medicine gave the scientific information, to disseminate which Wakley put in the front of his intentions; while a free-spoken communication from a distinguished hospital official about another still more distinguished colleague gave sufficient evidence that no amount of prestige was to protect a

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man from criticism in the columns of THE LANCET. The analysis of certain quack remedies was the protoplasmic origin of an enormous organisation—THE LANCET Special Analytical Commissions—while the editorial note upon a sudden death occurring at a hospital was doubtless inserted as a proof that the doings within those fastnesses of prejudice and secrecy were open to the editorial gaze.

It was characteristic of the young journalist that he should never have considered whether he had a legal right to publish Sir Astley Cooper's lectures. His intentions were good, and he would have expressed them somewhat in this way:—I will publish the lectures of the hospital surgeons and physicians to their classes; if they are good so much the better for the profession at large who will read them in my pages and for the students who have paid to listen to them; if they are bad their publication will let my audience—which I mean shall be the whole of the medical profession—see that the students are being taught by men unfit to hold the posts for which they are paid, and to which they had been corruptly elected. It was a good example of fairness on Wakley's part that he should have selected Sir Astley Cooper as the first lecturer to be introduced to the medical public. Sir Astley Cooper was then at the zenith of his fame. He was a splendid lecturer, with enormous experience to draw upon and lucid methods of presenting his facts, so that the issue of his lectures was a real boon to the profession. Had Wakley desired he could have selected as a specimen a lecturer belonging to the privileged and highly paid classes, some inept bungler—there were such in those days,—and have reported him and criticised him simultaneously. But he desired to *in*form as much as to *re*form, and whatever his legal position might have been in the matter, consideration of which will form the subject of our next chapter, the great value that the publication of such lectures was to the medical world is beyond all doubt.

(To be continued.)

ARMY MEDICAL REPORT FOR 1894.

(FIRST NOTICE.)

THE issue of the Army Medical Blue-book has followed closely on the heels of that of the navy. The date of the prefatory letter of the Director-General to the Secretary of State for War is Dec. 4th of last year, but the report has only just appeared. In addition to the usual statistical and tabular statements on the health and sanitary condition of the army for 1894, the volume contains a dozen papers of professional interest, together with a record of meteorological observations at Netley and stations abroad for the year, and announcements connected with the Parkes and Alexander Memorial Prizes.

As regards the health statistics of armies, and of the British army in particular, it has to be borne in mind that there are several reasons why these should differ from statistical deductions derived from other sources. The young men entering our own army, for example, are selected as healthy and fit for military service to begin with, and they are invalided out of the service when they become unfit or attacked with diseases which are either incurable or likely to become chronic, fatal, or to seriously impair their military efficiency. The military differs from the civil population of the United Kingdom in that soldiers having to serve in different climates are exposed to various climatic causes of disease, the results of which are frequently manifested at later dates, so that from these and other causes it is difficult to obtain any really correct and reliable bases of comparison between military bodies and other communities. The army of this country, too, with its various colonies and dependencies, differs from the armies of other nations, and an exact basis of comparison can only be properly instituted between regiments or bodies of men who have gone through similar environing conditions or been similarly circumstanced in their military service. There is no other army that is placed under the same conditions as that of this country; the army of France somewhat resembles that of England in this respect, but that of Germany scarcely does so at all.

Turning, however, to the health of the British army at home and abroad we are told that the statistics of the troops serving in the United Kingdom during 1894 compare favourably with those of the preceding year. There were, however, 11 cases of small-pox, the highest number recorded in any year since 1888; but there was a marked decrease in the other eruptive fevers. Enteric fever also shows a definite decrease, although an outbreak of the disease attributable to water-pollution occurred at Caterham. Influenza shows a large decrease in 1894 as compared with 1893, and venereal disease also declined. As regards the colonies the general health shows improvement in comparison with 1893. This improvement was marked in Egypt and in the Mauritius. At Hong-Kong there was an epidemic of bubonic plague following the outbreak at Canton, and our troops did not altogether escape, although the disease was practically confined to the Chinese. The rate of sickness in Bengal was increased in 1894 as compared with that of the previous year or the average of the preceding ten years, the increase being mainly malarial fever and venereal diseases. Cholera also prevailed. A very severe outbreak, it will be remembered, took place at Lucknow, where 144 cases occurred, 97 of which were fatal. The polluted sand of the filter beds attached to the wells was the alleged cause of the outbreak in question. The statistics of sickness in the other presidencies—Madras and Bombay—also compare unfavourably with those of previous years, the chief factors being, as in the case of Bengal, malarial fevers and venereal affections. Enteric fever also contributed towards the increased rates of sickness and mortality.

The average strength of the European troops at home and abroad was 203,469 in 1894, and the following shows the ratios per 1000 of strength:—

European Troops.	Ratio per 1000 of strength.						
	Admitted.	Died.	Sent home as invalids.	Discharged as invalids.	Constantly non-effective from sickness.	Average sick time to each soldier.	Average duration of each case of sickness.
						Days	Days
Troops at Home and Abroad...	985·3	8·75	22·72	15·23	61·04	22·26	8·16

While the mortality in the United Kingdom during 1894 was 3·70, and at Gibraltar 2·97, and at Cyprus 3·45 per 1000 respectively, it was 8·61 for Egypt, 8·51 for Bermuda, 10·29 for Mauritius, 17·98 for China, and 16·81 for India.

As compared with the average ratios per 1000 for the previous ten years we may say that the death-rate for troops serving at home and abroad was 9·60, for those serving in the United Kingdom 5·36, Gibraltar 5·01, Cyprus 8·07, Egypt 20·64, Bermuda 10·49, Mauritius 17·55, China 10·65, and India 16·27 per 1000 respectively.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

PROPOSED ABOLITION OF EXAMINATION IN PHARMACOLOGY.

AN extraordinary Comitia of the Fellows of the Royal College of Physicians of London was held on the 13th inst., Sir J. RUSSELL REYNOLDS, Bart., President, being in the chair.

The REGISTRAR read the gracious reply from Her Majesty the Queen and from H.R.H. the Princess Henry of Battenberg to the vote of condolence passed by the College at its last meeting.

The PRESIDENT stated that a reply had been received from Sir W. Jenner thanking the College for its congratulations sent to him on the occasion of his eighty-first birthday.

The College Seal was set to copies of the new College List for the information of the Registrars of the General Medical Council.

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On the recommendation of the Laboratories Committee Dr. G. Sims Woodhead was reappointed Director of the Laboratories for another year.

Dr. J. A. J. Rice Oxley having entered into a partnership resigned his Membership of the College and returned his diploma. The resignation was formally accepted.

A communication was read from the President of the Birmingham Clinical Board pointing out that, according to the regulations at present in force, the period of hospital practice required of candidates was too short; and on the motion of the Registrar it was resolved to insert the words "after having passed the second examination" in the clause referring to hospital practice.

Dr. NORMAN MOORE then moved the following resolutions:—

1. "That 'Pharmacology' as a separate subject be omitted from the Third or Final Examination and the synopsis headed 'Pharmacology' from the Regulations, and that 'The Action of Medicinal Agents on the Body in Health and Disease' form part of the 'Third or Final Examination' in Medicine, Surgery, and Midwifery."
2. "That the term 'Pharmacy' be substituted for that of 'Practical Pharmacy' in the Regulations, and that of 'Materia Medica' for 'Pharmacology' in the list of requirements for the Third or Final Examination, and that the Examination in Pharmacy be written as well as oral on the subjects of the synopsis headed 'Practical Pharmacy,' but that in paragraph *a* (p. 19) the words 'medicinal action' be added after the word 'composition.'"
3. "That candidates be admitted to examinations in 'Pharmacy' at any time after passing the Second Examination and not 'at any time during the curriculum.'"
4. "That the alterations necessary to bring the Regulations into accord with the above resolutions be referred to the Committee of Management, and that if the Royal College of Surgeons agree on their part, the Regulations be issued."

With respect to the first resolution he pointed out that the extended synopsis of the scope of the proposed examination was in the main devoted to the physiological action of drugs; and he maintained that the action of medicinal agents should find a place in the examination in medicine. In the second resolution the omission of the word "practical" from before "pharmacy" would better define this subject, since candidates were never examined in it practically; and he thought that a course of lectures on "Materia Medica" might well be substituted for the course on "Pharmacology and Therapeutics" at present required. The expression of opinion at the last two meetings of the College showed that there was a strong feeling against the retention of pharmacology as a separate subject of examination and justified the proposal to abolish this examination even at so close a period to the time when the regulation would be operative. Dr. Moore reminded the College of the deliberations that took place in the College and in a joint committee of the two Colleges when the scheme of examinations under the five years' curriculum was first propounded. Pharmacology was then given a distinct place in the later period of study, and the synopsis was drawn up after conference with examiners. The regulations thus adopted in April, 1893, provided for four examinations, the fourth being wholly clinical; and in April, 1895, a plan for conducting this examination was approved by the Royal College of Physicians. The Council of the Royal College of Surgeons, however (with whom the scheme had originated), saw difficulties in the way of the new scheme, so that in November, 1895, it was finally resolved to revert to the plan of three examinations, the third taking place at the end of the fifth year on a more extended basis than at present. There still remained the subject of pharmacology, which, although included under the head of medicine, was to be conducted by special examiners and could be taken by the candidate after the fourth year of medical study (provided the anatomical and physiological examination had been passed). Was it wise to make this addition to the burdens of the students and would it make them sounder practitioners?

Dr. KINGSTON FOWLER, in seconding the resolution, pointed out that as a matter of fact the five years' curriculum really obtained at present, for of the last 100 candidates obtaining diplomas not one had done so after simply four years of medical study. The average time taken by a student to become qualified under the four years' curriculum was four years and ten months. This seemed to do away with any necessity for adding to his examinations on the ground that the curriculum had been extended to five years.

Dr. THORNE THORNE pointed out that an examination in pharmacology did not find a place in any other licensing body, and that although at Edinburgh University the course of lectures embraced "pharmacology and pharmacognosy," the examination was in "materia medica and therapeutics." The original object of extending the curriculum was to give students more practical work.

Dr. HALE WHITE contended that a lengthy synopsis was a better protection for the candidate than a brief one, and this synopsis in pharmacology laid down the lines of examination in a subject for which the teaching in the schools had been specially arranged. To reintroduce "materia medica" in place of "pharmacology" would not diminish the student's work, but owing to the lack of precision as to the definition of the former might materially increase it. The pith of the matter was, Should candidates have a reasonable knowledge of the action of drugs, and should they not undergo a better training than that of learning the empirical reasons for giving drugs, and might not the proposed scheme give them a greater interest in the subject?

Dr. LAUDER BRUNTON considered the resolutions to be retrograde in tendency and injurious to the best interests of medicine. The College would not gain much credit if it were so vacillating in these matters. Just when the question that examinations should be connected with teaching was being prominently set forth in the proposals to reform the London University these resolutions proposed that the examination in a particular subject should not be conducted by the teachers of that subject. When the scheme was revised it was decided to substitute for the old "materia medica" with its useless knowledge of the origin of drugs, &c., the subjects of "pharmacy" and "pharmacology," and it was hoped to have made the pharmacy examination a practical one. As to the meaning of pharmacology, it embraced a knowledge of the action of drugs in health and disease, and its scope was so wide that it was necessary to limit it as had been done by this synopsis. Of the value of such a knowledge he might instance the prescription of digitalis, the toxic effect of which was the production of symptoms that one ignorant of the properties of the drug would think further administration of it was required.

Dr. CURNOW said that if the results of experimental physiology be taken away from pharmacology and also those of therapeutics, not much would be left. He contended that the student's course was hampered by his having to pass an examination in a subject which was partly physiological and partly clinical.

Dr. LEECH considered that to make this alteration now would be very perplexing to the student. The proposal that examination in pharmacy should be deferred until the second examination was passed meant that the student would enter on hospital work without knowing anything about drugs. The term "medicinal action" only meant what the examiner chose to make it.

The usual hour for adjournment having arrived, it was decided by vote to continue the discussion, a motion for closing the debate made by Dr. Heron and seconded by Dr. Poore having been withdrawn.

Dr. BURDON SANDERSON feared that the adoption of the second resolution would increase the burden of the student, as it would reintroduce materia medica which was not a subject that it was desirable to emphasise. Nor should the number of examinations be increased. Drugs should be handed over to the druggist, whilst the introduction of purely scientific studies during the period of clinical study was objectionable. He moved an amendment in this sense, which was supported by Sir W. BROADBENT, who suggested that if the first resolution only were passed the working out of any consequent changes might be left to the Committee of Management.

Dr. NORMAN MOORE, having accepted the suggestions of Dr. Sanderson and Sir W. Broadbent, withdrew Nos. 2 and 3 of his resolutions, and the resolution in its final form was put and carried by a large majority as follows:—

"That pharmacology as a separate subject be omitted from the Third or Final Examination and the synopsis headed 'Pharmacology' from the Regulations; and that the alterations necessary in the Regulations be referred to the committee of management for consideration."

Dr. LEES moved that in one of the two papers in the medicine examination there be set three questions on pharmacology and therapeutics.

This was not seconded, and the Comitia adjourned.

UNIVERSITY OF BRUSSELS.—In the list of the successful candidates for the February examination for the M.D. degree occur the names of two English medical men—viz., Charles Robert Watson, M.R.C.S., L.R.C.P., *avec grande distinction*, and Robert Edwards, M.R.C.S., L.R.C.P., *avec distinction*.

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URBAN MORTALITY IN SCOTLAND IN 1895.

THE collective mortality in the eight principal towns of Scotland last year was 33,329, or at the rate of 22·21 per 1000 of the estimated population at the middle of the year (1,500,435). In 1894 the death-rate was 19·1 per 1000 inhabitants, being the lowest on record. The mortality for the first quarter of 1895 was 11,390; second quarter, 7772; third quarter, 6881; and fourth quarter, 7286. The following table shows the total number of deaths, estimated population, and death-rate in each of the eight towns in 1895, as well as the mean death-rate of the ten years 1885–94:—

—	Deaths.	Population.	Death-rate in 1895, per 1000.	Mean death-rate of previous ten years, per 1000.
Glasgow	16,332	695,876	23·47	22·08
Edinburgh ...	5,680	273,535	20·76	19·52
Dundee	3,402	160,163	21·24	20·80
Aberdeen ...	2,818	133,773	21·07	19·66
Leith	1,487	73,048	20·36	19·25
Paisley	1,548	71,622	21·61	22·46
Greenock ...	1,431	62,090	23·05	21·15
Perth	631	30,328	20·81	19·84

The increase in the collective death-rate of the eight towns in 1895 as compared with 1894 is due partly to the increased prevalence of miasmatic disease. There was also a large increase in the number of deaths from heart diseases and diseases of the respiratory system, the mortality from these causes being specially heavy in the first quarter of the year, when a snowstorm of exceptional severity and duration occurred. Of the total 33,329 deaths, 12,810 were those of children under five years of age, being 38·4 per cent. of the whole, compared with 39·6 per cent. in 1894. The total number of deaths from miasmatic diseases last year was 3430. Of the 40 deaths from small-pox, 9 were those of vaccinated persons, 11 of unvaccinated, and in 20 cases no statement was made. There was during the first five months of the year an epidemic of measles in all the towns except Greenock, where, however, the mortality from that cause was marked in May. Altogether during the year 1044 deaths were due to measles and 984 to whooping-cough, the victims being chiefly children. The deaths from influenza rose from 143 in 1894 to 479 in 1895. Last year the mortality from other leading miasmatic diseases was as follows: scarlet fever, 337; typhus fever, 18; diphtheria, 256; and enteric fever, 253.

Heart diseases cut off 2707 persons in 1895, while in 1894 the deaths from diseases of the circulatory system numbered only 2479. To phthisis 3207 deaths were ascribed last year. From inflammatory diseases of the respiratory organs (not including whooping-cough and phthisis already mentioned) 7730 deaths were due in 1895, a great rise on the figure for the year 1894, which was 5434. In February and March last year the mortality from these inflammatory diseases was 1522 and 1353 respectively. In August and September, on the other hand, it was only 249 and 290 respectively. The general mortality for the third (or summer) quarter was, it will be noticed, 6881, as against 11,390 for the first (or winter) quarter. The only class of diseases in which the mortality rose in the summer quarter was in diarrhœal diseases. In the third quarter of the year these caused 561 deaths, contrasted with 81 in the first quarter.

Of the whole 33,329 deaths last year the causes are classified generally as follows: specific febrile or zymotic diseases, 4875; parasitic diseases, 3; dietetic diseases, 124; constitutional diseases, 5965; developmental diseases, 2269; local diseases, 17,575; violence, 1139; and ill-defined and not-specified causes, 1379. About 36 per cent. of the population of Scotland reside in these eight towns. During the first quarter of last year the weather was cold, with frost and snow; during the next six months it was, on the whole, agreeable; and in the last quarter, while there was little snow, there were a great many wind and rain storms.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Enteric Fever at Quarry Bank, by Dr. S. W. WHEATON.—Quarry Bank is a small urban district of 6732 inhabitants in Staffordshire, and in 1886 it was the seat of a prevalence of typhus fever. When, therefore, last autumn the Local Government Board heard that a fatal outbreak of fever was again prevailing there, and that it was more directly contagious from person to person than is usual in enteric fever, they instructed Dr. Wheaton to visit the place and to report on the circumstances. The facts which he elicited included the following. There had been notified 56 cases of fever, which were first looked upon as of obscure type, but which were afterwards held locally to be enteric fever. Of these no less than 13 died, and this high fatality leads to the surmise that mild attacks other than those notified had also occurred. The disease was singularly limited to a small portion of the district; at one point nearly every house was invaded; and multiple attacks in households occurred in many instances. Thus, in one house the mother died from the fever and 6 children were attacked. The secondary cases in households followed at about a week's interval on each other, and the patients were seen in all stages of the disease. The fever was enteric fever, having exceptional potency for spread. The causes of the disease and its notable virulence in households are not very difficult to explain. The water was mostly from wells close to houses, leaking privies, and defective drains; the privy receptacles were at times mere holes in the ground; excremental accumulations formed a grave nuisance; and the ground in parts was littered with excremental filth, including at times the excreta of the sick. In addition there was close aggregation of sufferers with the hitherto healthy—they ate and drank in common, and both diseased and healthy occupied the same bed. In advising as to measures of prevention Dr. Wheaton gave strong prominence to the need of using the isolation hospital and extending the number of beds; and such use was found to have a marked controlling influence on the spread of the disease. Enteric fever in the face of filthy surroundings and of household negligence such as were met with at Quarry Bank is a very different disease as regards its capacity for spread from person to person from enteric fever under the conditions of cleanliness and care as to the sick and as to the nurses which are found in a well-administered hospital.

Enteric Fever at Loddon, by Dr. S. MONCKTON COPEMAN.—This report is one of considerable length, discussing as it does in much detail the precise origin and means of spread of enteric fever in the town of Loddon, which has some 1100 inhabitants, in the south-east of Norfolk. After an absence of enteric fever extending over a period of no less than ten years some thirty attacks occurred. The means of spread for such a disease were somewhat plentiful, for all the water is derived from surface wells, the depth of most of them not exceeding about four feet. This water must be regarded as of universally bad quality owing to the continued contamination of the subsoil. Then, again, the drains are mere rubble ones, and when opened up in connexion with the outbreak some were found to be blocked. From a soil containing such drains no decent water could be expected; but, as is commonly the case, certain wells acquire a good repute, and this happened to be the position attaching to the Loddon town pump. It became noted, however, that with very few exceptions the houses invaded by enteric fever were in close proximity to a green in the centre of which stood this pump; and not only so, but nearly all those persons who were attacked were known to have obtained their supply from the well over which it stood. Chemical analysis of the water made during the course of the outbreak showed that albuminoid ammonia, nitrates, and oxygen absorbed were in excess, and that the supply was "heavily polluted with sewage and unfit for drinking." This, happily, led to the closure of the well, and with a single exception the disease died out within three weeks of the adoption of this step. How the well acquired its specific property for mischief cannot now be elicited with

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any degree of certainty. Had it not been for denials to the contrary, the occurrence could easily have been explained by the cleansing of infected utensils at the pump from the first house attacked and the subsequent emptying out of the rinsings over the site of the well, a practice which is common in the extreme in many districts where surface and other local wells are in use. The report, which is placed on sale, is an interesting one and embodies the complete story of a very detailed inquiry.[1]

On Diphtheria and "Pneumonia" in the Borough of Flint, by Dr. R. J. REECE.—Dr. Reece has submitted a somewhat lengthened report to the Local Government Board on an outbreak of diphtheria and on certain cases of pneumonia, so called, in the borough of Flint. The report enters in considerable detail into all the varied aspects of the sanitary circumstances and sanitary administration of this old borough, and the descriptions given show well how information of this sort may best be set out in the form of a report. The document is placed on sale.[2] The defective administration referred to leads to a number of definite recommendations. One is as to the provision of a proper isolation hospital, for with over 150 cases of diphtheria no attempt was made to use the existing and largely useless building supposed to be available; there was also no proper means of disinfection. But we do not propose to discuss this more administrative part of the report, because Dr. Reece is of opinion that the defective sanitary conditions only had a secondary influence on the diphtheria. The pollution of the soil from ill-constructed privy-middens and the consequent emanations therefrom may, to a certain extent, have prepared the way for an outbreak of diphtheria by causing inflammation of the throat and fauces. Added to this, poverty and want, overcrowding of persons in houses, and lack of cleanliness would assist in lowering bodily vitality and the resisting power against disease. These conditions, coupled with an apathy which could only be accounted for by great ignorance, had their share in causing the serious epidemic of diphtheria which went through 1894 and culminated in over 100 attacks in the first seven months of 1895; but school influence must be regarded as the all-important factor in the case. Indeed, this aspect of the case is discussed with great care, and Dr. Reece sets out in tabular and diagrammatic form the alternating effects of school operations and school-closure at the National and the Roman Catholic schools on the amount of the disease which was notified. How anybody professing to be a sanitary authority could, under the circumstances described, stand by and make no attempt at either efficient isolation of the sick or at the provision of any means for the thorough disinfection of infected articles and premises seems almost unaccountable. The so-called pneumonia seems to have been practically over when it incidentally came under Dr. Reece's notice, but no less than nineteen adults and one child had died from it in less than seven months in this little borough of 5247 people. The precise nature of the ailment could not be made out, and it still remains doubtful whether it was a form of infective pneumonia or whether it was typhus fever. The present medical officer of health—whose partner, the then health officer, died from typhus fever when that disease prevailed in Flint in 1887—was of opinion that the disease was not typhus fever; other practitioners seem to have set it down as a serious sequel to influenza. But one thing is certain—namely, that whether this obscure but fatal infectious disease or the long-maintained prevalence and fatality of diphtheria be in question, the town council have very definite sanitary responsibilities both towards their constituents and to the country generally which they have as yet not properly apprehended.

On the Sanitary Administration of Thurmaston, by Dr. W. W. E. FLETCHER.—This report deals with certain points in the sanitary administration of the little Leicestershire urban district known as Thurmaston which contained 1681 persons in 1891. The water-supply had frequently been complained of, and it is reported to be obtained from 101 wells, commonly about or under twenty feet deep, sunk in back yards. The surroundings of some of these are described, and they include within a few feet of them churchyard, privies, catch-pit from stable, privy cess-pit, disused piggery, &c. The upper soil through which one of the deeper of the wells is sunk consists of twenty feet of gravel and the wells generally are only dry-steined with bricks. As Dr. Fletcher says, it is altogether unlikely that a safe water for drinking purposes can be obtained from such wells. But the old local board and the new urban council will not move, and the local answer to complaint, according to Dr. Fletcher's report, is that there is an "ample supply of good water at Thurmaston." So, also, the sewers and the system of sewerage have been matter of complaint. The sewers, constructed thirty years ago, are circular socket pipes with cemented joints, there are no ventilators of any description and no means of regular flushing. Worse than all, they are provided in their course with catch-pits to retain offensive and decomposing solids, and these were found, as might have been expected, very foul. One sewer outfall is into a ditch, where the sewage stagnates pending removal; another into a ditch, ultimately discharging into the river Soar; two others are into the tail-race of a mill by the canal; and another is direct into the canal. And yet, curiously to say, the Thurmaston representatives can inform the Local Government Board "that there is not any pollution of ditches or of the canal or river." We need not further deal with this report, for it relates in the main to neglect and mal-administration in varied ways. But we would suggest to any persons interested, who have a care for their own health or that of their neighbours, that if the urban district council do not forthwith supply their district with a wholesome water-supply—which is available—and with a proper system of sewerage formal complaint of default should be made to the central authority in the terms of Section 299 of the Public Health Act, 1875.

[1] Eyre and Spottiswoode, East Harding-street, E.C.; John Menzies and Co., Edinburgh and Glasgow; Hodges, Figgis, and Co., Dublin. Price 4*d*. 1895.

[2] Eyre and Spottiswoode, East Harding-street, E.C.; John Menzies and Co., Edinburgh and Glasgow; Hodges, Figgis, and Co., Dublin. Price 8*d*. 1895.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6393 births and 4029 deaths were registered during the week ending Feb. 15th. The annual rate of mortality in these towns, which had been 18·4 and 20·5 per 1000 in the two preceding weeks, declined again last week to 19·3. In London the rate was 20·3 per 1000, while it averaged 18·7 in the thirty-two provincial towns. The lowest rates in these towns were 12·8 in Croydon, 13·0 in Huddersfield, 13·3 in Derby, 14·7 in Brighton, and 14·8 in Birkenhead; the highest rates were 22·4 in Preston, 22·5 in Oldham, 23·4 in Liverpool, 24·2 in Manchester, and 26·4 in Norwich. The 4029 deaths included 512 which were referred to the principal zymotic diseases, against 457 and 561 in the two preceding weeks; of these, 162 resulted from measles, 142 from whooping-cough, 83 from diphtheria, 55 from scarlet fever, 39 from "fever" (principally enteric), 31 from diarrhœa, and not one from small-pox. No death from any of these diseases was recorded last week in Brighton; in the other towns they caused the lowest death-rates in Hull, Swansea, and Preston, and the highest rates in Birmingham, Norwich, Leeds, and Leicester. The greatest mortality from measles occurred in London, Bristol, Sunderland, Burnley, Norwich, and Leicester; from whooping-cough in Liverpool, Leeds, and Salford; and from "fever" in Derby. The mortality from scarlet fever showed no marked excess in any of the large towns. The 83 deaths from diphtheria included 45 in London, 5 in Birmingham, 5 in Leeds, 3 in Manchester, and 3 in Bradford. No fatal case of small-pox was registered during the week under notice either in London or in any other of the thirty-three large towns. There were 60 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 15th inst., against 70, 74, and 64 at the end of the three preceding weeks; 12 new cases were admitted during the week, against 14, 12, and 6 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 2944, against 2916, 2879, and 2883 on the three preceding Saturdays; 303 new cases were admitted during the week, against 290, 273, and 285 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 314 to 446 in the six preceding weeks, declined to 402 last week, and were 109 below the corrected average. The causes of 46, or 1·1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a

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coroner. All the causes of death were duly certified in Salford, Oldham, Bradford, Leeds, and in twelve other smaller towns; the largest proportions of uncertified deaths were registered in Portsmouth, Birmingham, Preston, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the three preceding weeks from 20·1 to 18·8 per 1000, rose again to 19·1 during the week ending Feb. 15th, but was slightly below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 11·9 in Leith and 13·6 in Paisley to 20·0 in Glasgow and 24·4 in Greenock. The 557 deaths in these towns included 30 which were referred to whooping-cough, 14 to diarrhœa, 7 to scarlet fever, 5 to measles, 5 to diphtheria, 5 to "fever," and not one to small-pox. In all, 66 deaths resulted from these principal zymotic diseases, against 79 and 77 in the two preceding weeks. These 66 deaths were equal to an annual rate of 2·3 per 1000, and was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 37 and 32 in the two preceding weeks, further declined to 30 last week, of which 18 occurred in Glasgow, and 3 each in Dundee, Aberdeen, and Greenock. The deaths referred to scarlet fever, which had been 10 and 6 in the two preceding weeks, were 7 last week, and included 3 in Aberdeen and 2 in Glasgow. The 5 fatal cases of measles showed a slight further increase upon recent weekly numbers, and included 3 in Edinburgh. The deaths referred to different forms of "fever," which had increased in the three preceding weeks from 3 to 8, declined again to 5 last week, of which 3 were recorded in Edinburgh and 2 in Glasgow. The fatal cases of diphtheria, which had been 6 and 10 in the two preceding weeks, declined to 5 last week, and included 3 in Glasgow and 2 in Dundee. The deaths from diseases of the respiratory organs in these towns, which had been 116 and 106 in the two preceding weeks, were 105 last week, and were less than one-third of the high number recorded in the corresponding week of last year. The causes of 40, or more than 7 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the three preceding weeks from 27·4 to 24·6 per 1000, further fell to 22·5 during the week ending Feb. 15th. During the past seven weeks of the current quarter the death-rate in the city has averaged 25·8 per 1000, the rate during the same period being 19·2 in London and 16·9 in Edinburgh. The 151 deaths registered in Dublin during the week under notice showed a decline of 14 from the number in the preceding week, and included 8 which were referred to the principal zymotic diseases, against 7 and 10 in the two preceding weeks; of these, 3 resulted from "fever," 2 from whooping-cough, 2 from scarlet fever, 1 from diarrhœa, but not one either from small-pox, measles, or diphtheria. These 8 deaths were equal to an annual rate of 1·2 per 1000, the zymotic death-rate during the same period being 2·9 in London and 1·5 in Edinburgh. The deaths referred to different forms of "fever," which had declined from 6 to 2 in the three preceding weeks, rose again to 3 last week. The 2 fatal cases of whooping-cough corresponded with the number in each of the two preceding weeks; and the 2 deaths referred to scarlet fever exceeded the number recorded in any recent week. The 151 deaths in Dublin last week included 23 of infants under one year of age, and 39 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the numbers recorded in the preceding week. Six inquest cases and 3 deaths from violence were registered; and 44, or more than a fourth, of the deaths occurred in public institutions. The causes of 13, or nearly 9 per cent., of the deaths in the city last week were not certified.

"KISSING THE BOOK."—By direction of his Honour Judge Emden the oath on the Testament has been abolished in the Tunbridge Wells county court in favour of the Scottish method with uplifted hand.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

BRIGADE-SURGEON-LIEUTENANT-COLONEL G. J. H. Evatt, M.D., Secretary to the Principal Medical Officer, Netley, has received orders to hold himself in readiness to proceed to Hong-Kong and take over the appointment of Principal Medical Officer there. Deputy-Surgeon-General Henry Cayley, F.R.C.S., Professor of Military Medicine in the Army Medical School, Netley, has been granted an extension of appointment for one year from June 4th next.

ARMY MEDICAL STAFF.

The undermentioned Surgeon-Captains to be Surgeon-Majors (dated Feb. 2nd, 1896):—Michael Kelly, M.D., Horace H. Pinching, Robert J. Geddes, M.B., William Kelly, M.D., David V. O'Connell, M.D., Anthony Dodd, George Wilson, M.B., James M. Reid, M.D., Thomas B. Winter, Frederick S. Heuston, F.R.C.S.I., Robert J. A. Durant, George F. Gubbin, Henry P. Birch, Monckton O'D Braddell, M.B., James J. C. Donnet, and Henry M. Sloggett. The under-mentioned Surgeon-Lieutenants to be Surgeon-Captains (dated Jan. 30th, 1896):—Frederick M. Mangan, Charles E. Pollock, William J. Taylor, M.B., Bell W. Longhurst. John H. Rivers, Henry A. Berryman, Ferberd R. Buswell, Frank A. Symons, M.B., John H. Farmer, and Charles T. Samman. The undermentioned Surgeons on probation to be Surgeon-Lieutenants (dated Jan. 29th, 1896):—Frederick Sadleir Brereton, John Charles Baron Statham, Robert Montagu Le Hunte Cooper, M.B., Edwin Charles Hayes, Percy John Probyn, Anthony Henry Waring, Arthur Winsmore Hooper, William Alfred Ward, and Edmund George Forrest, M.B.

INDIA AND THE INDIAN MEDICAL SERVICES.

The Queen has approved of the retirement from the Service of the undermentioned officers:—*Bengal Medical Establishment:* Brigade-Surgeon-Lieutenant-Colonel Joseph MacNaughton Fleming, M.D. (dated April 9th, 1892). Brigade-Surgeon-Lieutenant-Colonel Peter Cullen, M.D. (dated June 1st, 1892). *Madras Medical Establishment:* Surgeon-Major Ferdinand Clarence Smith (dated July 1st, 1895).

Surgeon-Major H. N. V. Harington (Madras), Medical Officer of the Deoli Irregular Force and of the Haraoti and Tonk Political Agency, is appointed to be Agency Surgeon at Alwar, vice Surgeon-Major A. S. Faulkner, who retires from the service. Surgeon-Major Harington will continue to officiate as Residency Surgeon in Meywar until further orders. Surgeon-Major H. St. Clare Carruthers is appointed to be District Medical and Sanitary Officer, South Canara, and Superintendent of Gaol, Mangalore, in succession to Surgeon-Major H. Thomson. Surgeon-Major J. C. Marsden is appointed to be District Medical and Sanitary Officer, Godavery, in succession to Surgeon-Major H. St. Clare Carruthers. Surgeon-Major H. Thomson, M.B., is appointed to be Civil Surgeon, Coconada, in succession to Surgeon-Major J. C. Marsden.

NAVAL MEDICAL SERVICE.

The undermentioned Surgeons have been promoted to the rank of Staff-Surgeon in Her Majesty's Fleet:—Henry Harris, Edward Corcoran, John Lloyd Thomas, James Lawrence Smith, M.B., John Henry Thomas, Frederick John Lilly, John Dowson, George Frederic Dean, M.B., George Welch, and Henry Frederick Iliewicz (dated Feb. 11th, 1896).

VOLUNTEER CORPS.

Artillery: 2nd Middlesex: Surgeon-Lieutenant Atwood Thorne, from the 1st Cinque Ports Volunteer Rifle Corps, to be Surgeon-Lieutenant. *Rifle:* 6th Volunteer Battalion the Royal Scots (Lothian Regiment): Surgeon-Major C. J. Allan to be Surgeon-Lieutenant-Colonel. 3rd Volunteer Battalion the Royal Fusiliers (City of London Regiment): Surgeon-Lieutenant W. Barter, M.D., from the 5th (West) Middlesex Volunteer Rifle Corps, to be Surgeon-Lieutenant. 2nd Volunteer Battalion the King's (Liverpool Regiment): David Smart, M.B., to be Surgeon-Lieutenant. 1st Volunteer Battalion the Lincolnshire Regiment: Surgeon-Lieutenant W. H. B. Brook, M.D., resigns his commission. 3rd Volunteer Battalion the Devonshire Regiment: Surgeon-Lieutenant W. R. Haydon, M.D., to be Surgeon-Captain, to resign his commission, to be permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement. 3rd (Cambridgeshire) Volunteer Battalion the

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Suffolk Regiment:—Surgeon-Lieutenant J. P. Atkinson, M.D., to be Surgeon-Captain. 2nd Volunteer Battalion the Prince Albert's (Somersetshire Light Infantry); Surgeon-Lieutenant H. Norris to be Surgeon-Captain, to resign his commission, to be permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement. 2nd Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment): Surgeon-Lieutenant-Colonel W. Milligan resigns his commission, also is permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement.

DEATHS IN THE SERVICES.

Surgeon-General James Ekin, C.B., on the 14th inst., aged sixty-seven. He entered the Army on April 7th, 1854, and was appointed Surgeon in October in the following year. He attained the rank of Surgeon-Major in March, 1873: Brigade-Surgeon, November, 1879; Deputy Surgeon-General, March, 1882; and retired in April, 1884, as Hon. Surgeon-General. He was with the 4th Regiment at the siege and fall of Sevastopol in 1855, and received the medal with clasp and Turkish medal. He served in the Afghan war in 1879–80, accompanied Sir Frederick Roberts in the march to Kandahar as principal medical officer of the Infantry Division, and was present at the battle of Kandahar, being mentioned in despatches, and receiving medal with clasp and bronze decoration. He also served throughout the Egyptian war of 1882 as principal medical officer of the First Division, was present at the battle of Tel-el-Kebir, and was mentioned in despatches, received a Commandership of the Bath, was awarded medal with clasp, third class of the Osmanieh, and Khedive's star.

Deputy Inspector-General of Hospitals Benjamin Swift, M.D., at Dover, aged seventy-nine years. He was appointed Surgeon in April, 1842; Surgeon-Major, January, 1854; Surgeon-Lieutenant-Colonel, April, 1862; and retired with the rank of Hon. Inspector-General, July, 1867.

ARMY AND INDIAN MEDICAL SERVICE COMPETITIVE EXAMINATIONS.

The following is a list of successful candidates for commissions in the Medical Staff of Her Majesty's Army at the recent examination in London:—

E. T. F. Birrell	2740	A. J. MacDougall	2207
A. H. Morris	2308	G. B. Riddick	2135
S. A. Archer	2297	H. Hewetson	2107
E. W. W. Cochrane	2223	K. W. Clements	2000
M. Swabey	2210		

The successful candidates for Her Majesty's Indian Medical Service at the examination held in London on the 7th inst. are as follows:—

H. J. Walton	3186	H. R. Brown	2331
H. Ainsworth	3010	A. N. Fleming	2316
J. W. Cornwall	2683	S. P. James	2305
F. A. Smith	2636	A. E. H. Pinch	2285
J. S. Stevenson	2610	P. Dee	2283
H. A. D. Dickson	2604	F. O. N. Mell	2263
W. G. Richards	2518	F. D. Brown	2259
M. Dick	2513	F. A. L. Hammond	2223
A. Miller	2476		

THE ASHANTI EXPEDITION.

We are glad to learn that the health of the troops returning from Ashanti is satisfactory. The *Manila* arrived at Las Palmas, Grand Canaries, on the 14th, and left the following day. She had one officer and twenty-six men sick, but no serious case on board. The hospital ship *Coromandel* arrived on Feb 16th with eleven officers and fifty-six men sick, all doing well. The deaths of a sergeant of the Ordnance Store Corps and two men of the West Yorkshire Regiment are reported.

The troopship *Malabar* arrived at Portsmouth on the 17th inst. from Bombay with invalids and time-expired men from various regiments stationed in India. The *Malabar* returns to Bombay on the 28th inst. and makes her last voyage to India, hired transports in the future doing the work.

Surgeon-Captain George Hilliard, M.B., B.Ch. Dubl., who attended Prince Henry of Battenberg in his last illness, has been personally decorated by the Queen with the Military Companionship of the Order of St. Michael and St. George.

WE regret to announce the death of Mr. James Edward Tuxford of Boston, Lincolnshire. Deceased, who was in his ninety-third year, qualified as L.S.A. so far back as 1824. He had been a J.P. for the borough of Boston since 1841.

Correspondence.

"Audi alteram partem."

"PHARMACY AND PHARMACOLOGY."

To the Editors of THE LANCET.

SIRS,—As so many fallacious arguments have been adduced in favour of the abolition of pharmacology as an examination subject I should esteem it a favour if you would permit me to say a few words in reply. In the first place, it is stated that the term "pharmacology" has no definite meaning and that no two authorities are agreed as to the interpretation of the word. As a matter of fact that is no difficulty. Pharmacology is the science which deals with the action of drugs and other agents on the healthy organism. It means the same thing as the physiological action of drugs, bearing in mind, however, the fact that it includes all agents capable of producing modifications in the healthy organism, such, for example, as heat, light, and electricity. The observations are made, not with the direct object of curing diseases, but with the view of ascertaining the action of the agent employed. The experiments may be made on man, on one of the lower animals, or on a portion of an animal, such as the isolated frog's heart. The attempt to confound pharmacology with pharmacognosy is puerile. By pharmacognosy we mean the recognition of drugs by their physical and chemical characters with the detection of adulterations. It means practically the same thing as "spotting specimens," an expression in common use amongst students. Secondly, it is asserted that there are no books of pharmacology, and this again is incorrect. Dr. Lauder Brunton's classical work on "Pharmacology and Therapeutics" has been before the profession for over ten years, "Schmiedeberg's Pharmacology" has a world-wide reputation, and a translation of the "Pharmacology" by Binz of Bonn will shortly be issued by the New Sydenham Society. Thirdly, it is said that no examining board has succeeded in introducing pharmacology as an examination subject. I do not profess to be acquainted with the regulations of all the examining boards, but I know from personal experience that an examination in pharmacology, both by written papers and *viva-voce*, has for many years been held in the University of Edinburgh, and I understand that similar examinations are held in the Victoria University. There is no difficulty in setting papers on pharmacology and there is no difficulty in teaching the subject. At the Westminster Hospital for the last four years I have lectured on pharmacology pure and simple, and have experienced no difficulty in finding ample materials for a full summer course. Fourthly, it is objected that pharmacology should not be taught because it cannot be taught practically on account of the restrictions of the Vivisection Act. This argument, if true, would apply equally to physiology, but, as a matter of fact, there is nothing to prevent most of the elementary facts of pharmacology from being demonstrated before a class. Students, for example, are always willing enough to inhale nitrite of amyl, so that the action of the drug on the pulse may be shown by the sphygmograph, and there is no danger in the experiment. There is nothing to prevent me from killing a frog by pithing it, and, when the animal is dead, from demonstrating the influence of muscarine in slowing and finally arresting the heart, and then the antagonistic effect produced by atropine and other members of that group. Even the opponents of pharmacology would hardly maintain that experiments on dead frogs are prohibited by the Act. Then, again, the influence of strychnine, brucine, thebaine, and other tetanisers can be perfectly well shown on pithed frogs, whilst Roy's apparatus in its various forms and modifications is admirably adapted for demonstrating the action of digitalis and its congeners on the isolated frog's heart. The effects of chloroform, ether, and other anæsthetics can be shown in the same way. Experiments illustrating the effects of various drugs on ciliary motion are equally available; in fact, pharmacology is just as capable of being taught practically as is physiology. Finally, it is argued that every physician is capable of conducting examinations in pharmacology and consequently that the subject should form a portion of the examination in medicine. Theoretically, of course, every physician is an accomplished physiologist and anatomist and

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is equally well up in chemistry, toxicology, forensic medicine, and hygiene, but we know practically that the intimate knowledge of these subjects necessary for examination purposes is confined to a few who make a specialty of them. I know many excellent examiners in medicine who would cut a sorry figure if they were to attempt a *viva-voce* examination in pharmacology, and who would have a very uncomfortable quarter of an hour if they had to tackle a student even moderately well up in his work.

It may be said, What is the good of pharmacology, and why should a student be required to know anything about the action of drugs? The answer is because pharmacology is the basis of therapeutics and of all rational treatment, and that a medical man who does not know the principles on which he prescribes is an empiric and little better than a quack. These gentlemen who have such a profound contempt for the physiological action of drugs do not show up very brilliantly when called in to a case of poisoning. They go hunting round for some little text-book to find out the antidotes, but as far as their own personal knowledge goes they are of no use whatever. In a few years' time if this kind of thing goes on we shall have a race of practitioners growing up who cannot write a rational prescription, and when our patients leave us and resort to the advertising chemist and the patent medicine vendor we shall know whom to thank for the degradation of our profession.

I am, Sirs, your obedient servant,

WILLIAM MURRELL, M.D. Brux.,
Lecturer on Pharmacology and Therapeutics at the Westminster Hospital.

Welbeck-street, W., Feb. 16th, 1896.

"FUNCTIONAL APHONIA IN MAN; TREATMENT, ETC.; WITH SPECIAL REFERENCE TO SO-CALLED VARICOSE VEINS AT THE BASE OF THE TONGUE."

To the Editors of THE LANCET.

SIRS,—In the concluding paragraph of his article in THE LANCET of Feb. 15th on Functional Aphonia with Special Reference to the So-called Varicose Veins at the Base of the Tongue Dr. Tilley asks: "Does such a condition [as varicose veins of the tongue] exist, and, if so, with what frequency?" My experience is that enlargement of the veins at the back of the tongue often exists in persons over fifty years of age in such degree as to be fairly described as "varicose." But while in a good many cases they are coincident with morbid states of the pharynx and larynx, and a few may be contributory factors in relation to various morbid sensations in the throat, I have found that the so-called "varicose veins" may be more frequently observed in patients who do not complain of any throat trouble at all, and that their importance has been greatly exaggerated in some quarter.

At one time some elongation of the uvula was constantly accused of being the source of many and diverse affections of the throat, then "varix" of the tongue was made to bear the brunt, but I believe "turbinal varix" now bears the palm. I have no manner of doubt that all these affections have a very real existence, and that they may sometimes be the main or contributory factors in the production of conditions which demand active treatment, but I am equally confident that the great majority of laryngologists would strongly oppose the tendency of a few observers to overestimate their clinical importance.

Dr. Tilley's cases are very interesting and instructive, and illustrate the advantage and importance of taking a broad-minded and physicianly view of patients whose symptoms are localised in the throat. I am, Sirs, yours truly,

P. WATSON WILLIAMS, M.D. Lond.,
Physician in Charge of the Throat Department, Bristol Royal Infirmary.

Feb. 16th, 1896.

To the Editors of THE LANCET.

SIRS,—Dr. Herbert Tilley, assistant surgeon to the London Throat Hospital—in the Medical Directory he calls it the London Ear and Throat Hospital—"names no names," but I fail to see why he should have abstained from stating that it is the Central London Throat, Nose, and Ear Hospital where the opinion is held that varicose veins at the base of the tongue are not the sole cause, as he asserts, but part of a certain pathological condition "at the root of many laryngeal and pharyngeal symptoms," and that galvano-cautery is an appropriate treatment; for he diligently attended the practice of this hospital for no inconsiderable time, and, indeed, acted as clinical assistant to one of the medical staff. Such a view was first promulgated by me in 1880 in a communication made at Milan as the result of investigations of a series of cases the notes of which were taken by my present colleague, Dr. Dundas Grant, who then acted as registrar. The question has since formed the subject of communications to the Philadelphia Medical Society in 1887, to the British Medical Association at Birmingham in 1890, and has been discussed in the second, third, and fourth editions of my systematic work, published respectively in 1887, 1890, and 1893. A further article on the subject, full of statistical detail, is to be found in the current number of the *Liverpool Medico-Chirurgical Journal*, reference to which will show that my views are shared by workers of eminence in France, Germany, and the United States.

Opinions announced by one qualified before Dr. Tilley was born, and now so generally upheld by colleagues and independent authorities, are not likely to be upset by the report of three cases in which *ex-parte* statements as to former failures by unnamed specialists are quoted, and the *rôle* of the *Deus ex* is assumed with all the credulity and enthusiasm of the young graduate.

I am, Sirs, yours faithfully,

Mansfield-street, W., Feb. 15th, 1896. LENNOX BROWNE.

To the Editors of THE LANCET.

SIRS,—I wish to say a few words regarding the cases of Dr. Herbert Tilley in THE LANCET of Feb. 15th. It was during his attendance at my practice at the Central London Throat, Nose, and Ear Hospital, and acting as my clinical assistant, that he heard about "varix" of the tongue as one of the objective causes for many subjective throat symptoms of the nature of "globus hystericus," or, as we now term it, "faucial," "pharyngeal," and "laryngeal tenesmus"; but I have never taught, nor have I till now heard, that this condition is held responsible for "functional aphonia." On the other hand, I have seen many cases presenting very distressing symptoms relieved by recognition of a complex pathological condition of which "lingual varix" is a pretty constant element. I am, Sirs, yours faithfully,

Harley-street, W., Feb. 17th, 1896. PERCY JAKINS.

To the Editors of THE LANCET.

SIRS,—Referring to Dr. Herbert Tilley's first case of functional aphonia in THE LANCET of Feb. 15th I read that "the base of the tongue was cauterised" a month or six weeks before Dr. Tilley saw the patient, when "there were no enlarged veins at the base of the tongue or any excess of lymphoid tissue"; but, unless Dr. Tilley desires to imply that such a condition had never existed, surely his examination proves that, so far as varicose veins were concerned, they had been very effectually destroyed by the cauterisation by the patient's former attendant.

I am, Sirs, yours faithfully,

W. G. HOLLOWAY, M.D. Cantab.,
Assistant Surgeon to the Central London Throat, Nose, and Ear Hospital.

Somerset-street, W., Feb. 17th, 1896.

To the Editors of THE LANCET.

SIRS,—I have acted for eighteen months as clinical assistant to the Central London Throat, Nose, and Ear Hospital, and for a further two years and a half as assistant registrar, my attendence being on the days of Dr. Orwin. Although I have never been taught that "functional aphonia" was dependent on varicose veins at the base of the tongue, or that galvano-cautery was the appropriate treatment, I have formed quite opposite conclusions to those of Dr. Herbert Tilley as to the importance of this condition as an etiological factor in many obscure pharyngeal and laryngeal symptoms. I have seen undoubted examples of this condition at the hospital, and as registrar have had to record quite a number. I have also seen cases where treatment directed to the varicose veins resulted in relief to the symptoms complained of. In the case of a medical *confrère*, seen by both Dr. Orwin and Mr. Lennox Browne, the varix was so pronounced as to be typical of the "black-currant-like" aspect described and figured by the latter observer, to

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whom the profession is indebted for the first observations on the subject.

I am, Sirs, yours truly,

Feb. 17th, 1896. PETER H. ABERCROMBIE, M.D. Glasg.

"CHROMIDROSIS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Feb. 15th two cases of this phenomenon were noted by Dr. F. W. A. Stott, and his conclusions seemed to point to an organic origin. His cases might be compared with one occurring in my practice about five years ago. The staining agent in my case gave a magenta colour and was firmly fixed in the clothing as well as the hair and nails. It did not appear to be of a contagious nature or to be connected in any way with the man's occupation. Unfortunately, only chemical tests were applied to the stained linen and with negative results. The man was, however, taking iodide of potash, and upon discontinuing the drug the unpleasant symptoms subsided only to return when his old medicine was again taken. It would be interesting to hear the result of the same drug in Dr. Stott's cases.

I am, Sirs, yours truly,

Feb. 16th, 1896. G. H. TEMPLE, M.B. Edin.

'THE MANNERS OF A COUNTY COUNCILLOR."

To the Editors of THE LANCET.

SIRS,—I thank you for your kind paragraph on Mr. Burns's remarks about me at the last meeting of the London County Council. I explained my position in my letter to the *Times* of the 16th inst. as follows:—"The fees I charged were on the scale agreed upon between the solicitor employed by the London County Council and myself in a former case—the London water bills—in which I was consulted by the Council (and in which the fees were paid), with these two differences: (1) That, whereas in the former case I was allowed a retaining fee, in this case I did not ask for one; and (2) that, whereas in the former case my evidence was not required, in the one about which the discussion arose I was both examined and cross-examined at length." I consider that the remarks of a man who, apparently, does not even know the meaning of the words he so recklessly uses are best treated with the contempt of silence.

I am, Sirs, yours faithfully,

Savile-row, Feb. 18th, 1896. W. H. CORFIELD.

"THE OBJECTS AND LIMITS OF OPERATIONS FOR CANCER."

To the Editors of THE LANCET.

SIRS,—I have read with great interest the first of Mr. Watson Cheyne's Lettsomian Lectures on the Operative Treatment of Cancer. As he has devoted some space to my views on the removal of cancer of the breast I hope you will allow me the opportunity of correcting one or two misapprehensions. So far from being an opponent to "thorough" operations for cancer of the breast I have long been in the habit of performing the most thorough operations for cancer of the breast which are now practised, short of amputating at the shoulder-joint and dividing the clavicle, neither of which I have ever performed for cancer of the breast. My book, to which Mr. Cheyne alludes, was written ten years ago, and published in 1887. The operations of which he *now* speaks as "thorough" were not performed before that time, and the anatomical and pathological reasons for the operations of the present day were not known. I objected to the larger operations which were recommended in all cases of cancer of the breast in those days because they were not based on sound pathological considerations; they had been attended with considerable danger compared with even much larger operations in these days, and did not to my mind afford sufficiently larger guarantee of cure than the smaller operations which were performed with the removal of an equally wide area of apparently healthy tissues in every direction around the tumour. During the last ten years our knowledge of the pathology of cancer of the breast has been largely increased, particularly by the investigations of Heidenhain, to which Mr. Cheyne has alluded. From these we now know much more definitely the course and line of invasion of the disease, and, consequently, how to make operations really "thorough," or as thorough as such operations can be made.

I am unpleasantly reminded by Mr. Cheyne's lecture that a second edition of my book is due, and that I should have prepared it ere this had I not been so busily engaged as to allow me very little time for writing. My preface says: "At the best it can only offer a faithful reflection of the relation of surgery to cancer at the moment at which it is written, and I cannot hope that it will occupy a lasting place in the literature of the subject."[1]

I am, Sirs, yours truly,

Feb. 17th, 1896. HENRY T. BUTLIN.

"ROENTGEN'S RAYS AS A CURE OF DISEASE."

To the Editors of THE LANCET.

SIRS,—Since my letter suggesting the possibility of curing diseases due to microbes by means of Roentgen's rays found a place in the issue of THE LANCET of Feb. 1st I have been engaged in experiments for testing the practical possibilities in this direction. By the influence of Mr. Johnson, of the firm of Messrs. Dawson and Co. of Berners-street, I was able to secure the use of a suitable apparatus in the workshop of Messrs. Miller, Woods, and Co. of Gray's-inn-road, Mr. Miller, of the latter firm, helping me in the electrical part of the experiments. The street alternating current of between 50 and 100 volts was passed through a converter, condenser, and a Tesla's coil, with the result that its voltage was raised, Mr. Miller tells me, to about 25,000, and the frequency of breaks to a very high degree. The amount of current used was such as would keep two sixteen-candle power electric lights going. This current, passing through a Crooke's tube, produced the usual faint greenish light in the tubes which indicates the generation of Roentgen's rays. With this apparatus, powerful in its way, very fair shadow pictures were obtained, but an exposure of fifteen minutes was found necessary with a Cadette lightning plate. The opacity of several substances was tested; aluminium and glass of equal thickness were, contrary to general opinion, found to be about equally opaque. In this connexion it should be stated that aluminium is capable of being used in much greater tenuity than glass—a fact of no small importance; for the "x" rays, though apparently neglecting most laws of radiant energy, conform to the law that the resistance to penetration of all the same substances are proportional to the logarithm of their thickness.

It is difficult to decide what kind of plate is best adapted to shadow photography because great differences of results have been obtained under apparently the same circumstances. In my experiments the Cadette plates were used and the lightning plate gave a much better result than one of less (one-third) the rapidity. It will be seen that several elements enter into the production of Roentgen's rays—the quantity and tension of the current, the frequency of breaks, and the efficiency of the Crooke's tubes. The greatest progress now being made towards increased intensity of ray is in the construction of Crooke's tubes; it is found that a rise in the degree of vacuum increases the intensity of the rays emitted, but, on the other hand, currents of frequent breaks appear to be destructive of tubes so constructed. Mr. Swinton informed an audience at the Royal Photographic Society that he had obtained the best results by laying aside the Tesla's apparatus and using a Ruhmkoff's coil, which produced a much lower frequency of breaks, the Crooke's tubes enclosing a very high vacuum.

He was thus enabled to get a good shadow photograph of a hand in just under one minute. If, however, a demand for apparatus to produce Roentgen's rays should arise such as to offer an adequate reward, no doubt physicists would not be long in producing a machine that would be as superior in force to those now in use as the present lighthouse lantern is to the old toy Leyden jar. Tesla some years ago, by a specially constructed dynamo &c., produced a current of such tension as with infrequent breaks would strike dead anyone through whom it passed, but whose frequency of breaks was so great that it passed without harm through a chain of human subjects, and at the same time illuminated

[1] On the Operative Surgery of Malignant Disease, 1887. London: J. & A. Churchill.

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a powerful electric light. It was reported by one observer, Dr. Hedley of the London Hospital tells me, that the organisms connected with the production of pus were markedly affected by such a current, a consideration bearing upon the possible value of ethereal energy in circuit through the body, a subject a little removed from the present one. The lightning plate exposed by me for fifteen minutes was still found under-exposed, whereas the same plate would under ordinary sunlight be fully exposed in a small fraction of a second. This, viewed in connexion with Professor Marshall Ward's experiments showing that two hours' exposure to sunlight was necessary to destroy pathogenic germs, by analogy would accord a very feeble possibility of the Roentgen rays now produced possessing germicidal properties of practical value. My experiments in this direction proved so far as they went a negative which was almost a foregone conclusion. An impure cultivation of diphtheritic bacilli (kindly obtained for me by Dr. Hugh Walsham, thanks to whom also is due from me for other help in my investigations) was exposed in a test tube in an incubator at 35° C. for twelve hours to Roentgen's rays produced by the apparatus described above. Considerable growth took place during these twelve hours and continued on further incubation. Exposure to the Roentgen rays had failed, as might be expected, to influence the growth of the bacilli to any appreciable extent. A pure cultivation of tubercle bacilli exposed at the same time showed a vigorous power of growth afterwards.

During these exposures, on account of an escape of electricity in one way and another, an intense odour of ozone was perceptible in the incubator and around it; the ozone apparently, however, was unable to penetrate the cotton-wool plug of the tube and affect the germs. A somewhat interesting result was obtained by photographing by Roentgen's rays the cultivation of diphtheritic bacilli sideways. The turbid blood serum gave a faint shadow, but the—to the eye opaque—colony of germs over a quarter of an inch thick gave no signs of existence. The rays passed through them as light through glass. Experiments like these are not, of course, final, but on the whole one is forced to the conclusion that with our present methods radiant ethereal energy is powerless against pathogenic organisms. At the same time, increased knowledge and improved apparatus may place the cure of disease by radiant energy within the possibilities of the future.

I am, Sirs, yours faithfully,

T. GLOVER LYON, M.D. Cantab.,
Senior Assistant Physician to the Victoria Park Chest Hospital.

Feb. 17th, 1896.

"WOMEN AND THE PROFESSION IN INDIA."

To the Editors of THE LANCET.

SIRS,—Referring to the letter of Mr. Dhingra in THE LANCET of Feb. 15th, which pretends to prove that there is no great need for lady doctors in India, surely Mr. Dhingra is aware that there are many cases where a woman, in whatever stage of normal or abnormal labour, is surrounded with grave dangers affecting the safety of her life and is certainly in want of skilled professional help at such times. He is also aware that qualified midwives cannot give such aid without a knowledge of medicine and surgery. Mr. Dhingra does not mean to say that these poor women should miserably perish without professional aid, which, as he admits, is only possible for women to render. It is to be regretted that Mr. Dhingra has taken such an unkind view of Lady Dufferin's noble scheme. Lady Dufferin's name will be cherished by her sisters of that vast empire to whom she has been a generous benefactress with mingled feelings of affection and gratitude for alleviating their sufferings.

I am, Sirs, yours faithfully,

J. F. D'ABREU, L.R.C.P. Edin., &c.

Handsworth, Feb. 15th, 1896.

"THE SOCIAL EVIL AND THE PROPAGATION OF VENEREAL DISEASES."

To the Editors of THE LANCET.

SIRS,—I read with much interest the article in THE LANCET of Feb. 1st on the above subject. In this you show the excellent result of the stringent enforcement of the Contagious Diseases Acts in Malta, but you only give the statistics of two British battalions. I find that the British Committee of the Federation for the Abolition of State Regulation of Vice maintain that the worthlessness of the Contagious Diseases Acts is proved both in England and India by the Memorandum of the Army Sanitary Commission. On referring to the Blue-book (Return 318) in which the Army Sanitary Commission report is published I find that the Commission, while advising that the compulsory lock hospital system in India be not re-instituted, do advise that women should be expelled from cantonments "when they are known to be diseased and refuse to submit to treatment in hospital." In other parts of the Blue-book I find recorded the opinions of judges, commissioners, registrars, and magistrates in various parts of India, and, as far as I have been able to discover, with one exception they are all in favour of the Contagious Diseases Acts. I have many friends, medical and combatant, in the Services, and where I have discussed the matter with them I have found them unanimous in favour of the Acts. I think that you are doing good service by referring to the matter at the present time, and I cannot help thinking that but for the apathy and want of organisation amongst medical men the Acts would never have been repealed. I should be obliged if you would inform me where I could obtain a full history of the working of the Acts, and if there is any society working for their re-enactment.—I am, Sirs, yours truly,

ATWOOD THORNE, M.R.C.S. Eng.

Dunster House, Mincing-lane, E.C., Feb. 8th, 1896.

*** If our correspondent will communicate with Messrs. Eyre and Spottiswoode he will obtain the blue-books he requires, and at a moderate cost.—ED. L.

PEROXIDE OF HYDROGEN.

To the Editors of THE LANCET.

SIRS,—Having very nearly been seriously injured by the explosion of a bottle of peroxide of hydrogen vaunted as a germicide, which was sent to me from America some weeks ago, I think it is right to warn my brethren against the destructive potentialities of this fluid. The bottle in question had been put away in a cupboard, and without obvious or discoverable cause exploded with great violence after it had lain undisturbed since it came into my possession. The fragments of the label having been pieced together I was able to find the address of the sender, Marchand of New York, and in reply to a letter telling what had happened he wrote that I must have failed to observe the printed directions, which order the preparation to be kept "in a cool place so as to prevent the slight decomposition which always takes place when the temperature is high, producing a heavy pressure in the bottle." He was right in saying that I had not read the instructions, but wrong in the assumption that the bottle had not been kept in a cool place. My colleague, Mr. Laurie, Lecturer on Chemistry at St. Mary's Hospital, tells me that "alkaline solutions and strong solutions decompose rapidly. A strong solution decomposes rapidly at 20° C., explosively at 100° C., and I can only suppose that owing to the solution being alkaline or too strong the peroxide had decomposed, the oxygen accumulating and finally bursting the bottle." It is certain that the bottle in my possession had not been exposed even to the lower of these degrees, 20° C., equal to 68° F. By his advice, also, I wrote to Messrs. Burton and Sons of Bethnal-green upon the subject, and their reply is much to the point. "The sample of peroxide of hydrogen which exploded," they write, "must have been very imperfect—probably alkaline—a condition that induces liberation of oxygen; the pressure becomes more than the bottle can resist, and consequently it gives way. In the early days such things did happen occasionally, but with us it is quite a thing of the past. The strength generally used is 12 vol.—i.e., 1 litre contains 12 litres available oxygen. We send out some thousands of gallons weekly for technical purposes, and, as we make it, consider the risk about the same as if it were water." It is obvious, therefore, that under ordinary conditions peroxide of hydrogen is free from explosive tendencies; but nevertheless it is a substance which, without the owner's knowledge, may have other and less harmful qualities than those which, rightly or wrongly, are attributed to it as a germicide, and I ask you to be so good as to put this, my experience, on record as a warning to those who may keep it for use in surgical practice.

I am, Sirs, yours obediently,

HERBERT W. PAGE.

Feb. 18th, 1896.

*** As alkalinity appears to be the source of mischief, it might perhaps be a useful precaution to carefully neutralise,

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if necessary, say with a few drops of hydrochloric acid, the specimens of peroxide immediately they are received? This would probably minimise the risks of explosion and *a priori* preserve the strength of the solution.—ED. L.

"DEATHS UNDER ANÆSTHETICS."

To the Editors of THE LANCET.

SIRS,—Permit me to reply to your remarks on the death that recently occurred under anæsthesia at the Birmingham Hospital for Women. The "sister in charge" is no "irresponsible nurse," but a highly trained lady who for the last seven years has discharged with great ability all the responsible duties of a house surgeon. She has entire charge of the staff of nurses (twelve in number). She superintends the preparation of the patients, instruments, sponges, &c., before operation, she administers the anæsthetic during the operation, and has full charge of the after-treatment of the cases after the operation. She has now administered anæsthetics in 1700 operations, including many cases which were quite as bad as the one in question, and the latter is the first in which an accident has happened. The "sister in charge" is one of the most skilful anæsthetists whom it has been my fortune to meet. Had I to take an anæsthetic I would infinitely prefer her to give it than one of the raw, inexperienced youths who do duty in some hospitals. Lastly, you condemn as unsafe the administration in Clover's inhaler of the mixture of ether (two parts) and chloroform (one part). Here I beg respectfully to differ from you. For many years it has been used most extensively in this hospital as well as in the private practice of the members of the staff. I am sure that my colleagues will agree with me when I assert that the method you so condemn is of all the safest and the best.—I am, Sirs, yours faithfully,

CHRISTOPHER MARTIN, M.B. Edin., F.R.C.S. Eng.

George-road, Edgbaston, Birmingham, Feb. 17th, 1896.

*** Our correspondent does not shake our opinion that a nurse, however "highly trained," is not a proper person to administer anæsthetics, or, we may add, to discharge "all the responsible duties of a house surgeon." An unqualified person (we are presuming, of course, that the "sister-in-charge" is not a registered medical practitioner) has no right to act as the house surgeon of a hospital or take "full charge of the after-treatment of the cases after operation." What next? The opinion of the General Medical Council on this point will, we hope, be elicited at their May meeting. For our part, we must insist that nurses, whether "sisters-in-charge" or of inferior rank, are merely *nurses*, and not *medical practitioners*—a difference which our correspondent seems utterly to ignore. Any individual preference which Mr. Martin may have for receiving his anæsthetic at the hands of an unqualified person cannot alter the legal status of that person or lessen the responsibility. Nor can a predilection for the administration of a chloroform-containing compound from a closed inhaler lessen the undoubted risk of the proceeding.—ED. L.

THE CHURCH AS A MEDICAL AID SOCIETY.

To the Editors of THE LANCET.

SIRS,—I should be grateful to have your views as to the fairness of this system. We have here a medical club on the following terms: Families, including all children under fourteen, 2*d.* per week; excluding the father, 1½*d.*, and above fourteen ½*d.* per week. This very inadequate payment is supplemented by a subscription from our better classes, adding a bonus of 4*d.* to every shilling thus paid. A body of district visitors collect the money weekly, calling at each house in the place, and naturally using their influence to procure fresh members. The attendance on this club is restricted to one out of the two practitioners here, and naturally this cheap and bounty-fed organisation, with its plentiful staff of "collectors," renders private practice among the poorer classes an impossibility, and month by month patients well able to pay a small amount drift away to obtain its attractive benefits. I should like to ask you, Sirs, in what way this differs from a medical aid society with innocent and no doubt well-meaning district visitors substituted for the paid canvassers of such a body, or whether it is not open to an equally grave objection.

I enclose my card, and remain, Sirs, yours faithfully,

X. Y. Z.

*** The scheme is open to much objection. It involves canvassing the patients of other medical men. The payments are inadequate. We see no provision for the exclusion of the unfit. The one practitioner favoured should object to it on these grounds. It perhaps differs from a medical aid society in that no profits accrue to the society.—ED. L.

THE BATTLE OF THE CLUBS.—XXII.[1]

(FROM OUR SPECIAL COMMISSIONER.)

(*Continued from p. 454.*)

LEICESTER:—THE ORGANISATION OF THE PROFESSION AT LEICESTER.

THOUGH the Leicester and Leicestershire Provident Dispensary is the largest and most important of the medical aid societies in Leicester there are many other similar organisations. Some of these are purely commercial undertakings, run for the purpose of securing life insurances. The Star Benefit Society has, I was told, sixteen medical officers on its list, and twenty medical men are employed by the Manchester Unity of the Oddfellows. Then there is a society called "The People," started in direct opposition to the Leicester Provident Dispensary. The Rev. Mr. Isaacs at one time led an agitation against the latter dispensary. He held open-air meetings in the Market-place, denounced the dispensary in no measured terms, and smote this parent institution hip and thigh. The fact that the dispensary took 4*s.* 4*d.* from its members and only gave 1*s.* 9*d.* to its medical officers was a good handle for attack. The Rev. Mr. Isaacs insisted that as workmen were principally concerned there should be workmen on the managing committee. He further urged there should be no fines for arrears, as it was not righteous to punish men for being unfortunate. He disapproved of the quarterly tax of 2*d.* imposed on the members of the dispensary, and considered that if such a sum was levied it should go to the medical officers who did the work instead of being absorbed by the management department. Nevertheless, the society, started under the impulsion of this agitation, has not proved a success. At one time "The People" had some 6000 members, but it has gone down a great deal of late; and, as it is said that it has not been properly registered, its medical officers cannot recover by law the sums due to them. According to the rules of the Leicester Provident Dispensary members in cases of emergency are not obliged to send for the medical man on whose list they are placed, but may call in the nearest medical man in the service of the dispensary. This rule, which gave the medical officers a great deal of trouble, was not enforced by "The People" society. It was urged that in real cases of emergency people could generally pay the usual fee, or else they must go to the trouble of fetching their regular medical attendant.

Several medical men expressed their conviction that the Leicester Provident Dispensary was responsible for the prevalence of medical aid societies throughout the town. It was the parent society and should have been open to all medical men. As it is, when a new and young medical man finds that the leading members of the profession are attached to the Leicester Provident Dispensary, but that its

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham; (18) Jan. 25th, 1896, Club Practices in Rural and Mining Districts; (19) Feb. 1st, 1896, The Formation of a Provident Medical Association at Folkestone; (20) Feb. 8th, 1896, The Manchester Medical Guild and Medical Aid Associations; (21) Feb. 15th, 1896, The Leicester and Leicestershire Provident Dispensary.

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doors are closed against him, what is he to do? In despair he joins some medical aid company, and thus sells his science to the promoters of a life insurance speculation. Some medical practitioners have, however, started fairly successful private medical dispensaries of their own. One medical man receives from this source £120 a year. It appears, however, that out of the £120 paid by the members of this private dispensary only half that sum remains as net profits. On the other hand, it not unfrequently occurs that a patient complains because he is kept waiting &c. In that case the medical man tells him to ring at the other bell, when he will receive more prompt and careful attention, but be charged the usual fee. It often happens that the hint is accepted, and the "club" patient thus becomes a private patient.

To deal with the manifold grievances that arise out of club practice there is as yet but one medical organisation, "The Leicester Medical Society." This is, however, a small and a somewhat exclusive body. It can only render service by taking the initiative in organising something larger and that shall embrace the whole of the profession. It was originally a book society and has now a circulating library. To be a member it is necessary to have been practising at least one year in the town. Meetings to discuss scientific papers are held every month during the winter. With regard to medical ethics, all that has been done so far has been to pass a resolution concerning homœopaths. At present the Leicester Medical Society consists of forty-seven members, and they have determined to convoke a general meeting of the entire profession. Very sanguine hopes are entertained—at least, in some quarters—as to the likely results of this effort at organisation. Some medical men with whom I discussed the question are in favour of establishing one single provident dispensary under medical management, which they imagine will sweep away all the existing dispensaries, medical aids established by insurance companies, and the medical aid section of the friendly societies. This seems a somewhat large order, but it is pointed out that the population of Leicester is, by reason of its prosperity and intelligence, well able to understand the advantage of such a reform. The workmen of Leicester are themselves so well organised that they will appreciate the medical man's grievances and be flattered by the fact that the medical profession should follow their example and also seek to organise. The respectable workers will be on the side of the medical men. Many a workman feels ashamed to think that, as a member of the Leicester Provident Dispensary, he is a recipient of public charity. He pays enough for the dispensary to be self-supporting without any appeal to charity; and if the 4*s.* 4*d.* he gives is not enough he can very well afford to subscribe more. These men have their trades-unions and their political clubs; they have a high sense of independence and dignity; they subscribe largely to all the forward movements of the country; and, even abroad, there is never an international labour congress without representatives of the Leicester trades. The Leicester workmen are inured to the spirit of discipline and self-sacrifice that combination teaches, and thus they have fought for, obtained, and maintained a high rate of wages. This may be said not only of the men but also of the women workers. It is therefore humiliating for them to think that the medical men who attend them in sickness receive only 1*s.* 9*d.* per annum, and that even this miserable sum cannot be paid without an appeal to the charitable. If the matter is properly explained the workmen of Leicester will welcome any proposal that will tend to free them from this ignominious position. There is no depression of trade; there is no need of charity. For those few families or individuals who are really in a state of abject poverty there are genuine charities to which they can appeal and where the required help can be obtained.

As for the life insurance companies they only give medical aid because they are compelled to do so as a means of competing one against the other. They do not make much or any profit out of this branch of their work and would be glad enough to give it up. Of course, no one company will take the first step. The system must be abandoned simultaneously by all the companies. If the movement was general most of the life insurance companies would welcome its success. For instance, the Royal London and British Workman Insurance Company was compelled to establish a medical aid branch so as to compete with its rivals, but it would joyfully give this up if possible. It should be noted that if a person who has insured his life and also pays for medical aid allows the premium on his life insurance to lapse the canvasser no longer collects the money for medical aid. Consequently, when he falls ill he receives no medical attendance, and then he imagines that he has been made to pay for nothing, that the medical officer has got money from him and done nothing in return. The member is willing to continue his payments for medical aid, but the company refuses to accept them, and of course the member comes to the conclusion that this conduct is approved by the medical man. Nothing of this sort could happen if the profession themselves organised a provident dispensary under their own management.

Undoubtedly the profession, if united action could be secured, are masters of the situation. But will every medical man in Leicester consent to give up his club practice, whatever it may be, and place himself instead on the list of active medical officers to the provident dispensary to be established and managed by the profession? It is to be feared that the medical profession has not yet been sufficiently trained in the discipline of strong organisations. Individual instincts and selfishness might get the better of the feeling of professional solidarity. But, nevertheless, if this can be done anywhere it is by a population such as that of Leicester that the motives of the profession would be best appreciated and most approved.

To the Editors of THE LANCET.

SIRS,—Will you kindly warn, through the columns of THE LANCET, any medical man who may feel disposed to answer an advertisement from the National Medical Aid Company, Limited, or Liverpool Victoria Legal for a medical officer for Leicester, that any such post here is at present under dispute? I am, Sirs, yours faithfully,

Leicester, Feb. 16th, 1896. ERNEST W. HAYDON, M.B. Glasg.

P.S.—I enclose a circular notice (copy) issued convening a meeting of the whole local profession.

"Welford-place, Leicester, Feb. 4th, 1896.

"DEAR SIR,—It has been felt by many members of the medical profession in this town that the relations between medical men on the one hand and dispensaries, medical aid societies, and clubs on the other are far from satisfactory. In several large towns these relations have recently been materially improved both in monetary and in other respects by the united action of the entire resident profession. With a view to friendly consultation in this matter, and also with the object, if found practicable, of establishing an association comprising *all the qualified medical practitioners* resident in the borough of Leicester for the express purpose of dealing with these matters, I beg to request your attendance at a meeting to be held at the Coöperative Hall, High-street, on Thursday, Feb. 20th, at 3.45 P.M.—I am, Sir, yours truly,

"C. H. MARRIOTT."

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Dinner to Sir Willoughby Wade.

ON the 17th inst. a complimentary dinner was given to Sir Willoughby Wade to commemorate the honour of knighthood conferred upon him at the beginning of the year. A large and distinguished company of medical men and prominent citizens took part in the occasion. The chair was taken by Sir Henry Wiggin, Bart., who proposed in felicitous terms the health of the guest of the evening and gave a short sketch of the public work in which Sir Willoughby Wade had been engaged during his residence in the town. He noted with satisfaction the universal approbation of the event by a large circle of the profession and public, and paid a tribute to the many useful services in which Lady Wade had also engaged. An illuminated address was then presented to Sir Willoughby Wade, who made, amid loud applause, a graceful acknowledgment of the kindness shown to him and expressed his appreciation of such an honour being so highly estimated by his numerous friends.

The New Photography.

Birmingham has not been behindhand in seeking to verify the experiments made by this new process, and to profit by the results obtained. Mr. Hall Edwards has been active in pursuing work in this direction, and at Mason College Professor Poynting and Professor Allen have directed their attention largely to the same quest. Already instances have occurred in which the location of a needle and a bullet have been accurately determined for the operating surgeon with successful results. The new development is attended with much

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promise and has attracted considerable interest and enthusia[illegible]sm.

Some Health of a s[illegible] zymotic- neighbo[illegible] six wor[illegible] a disaff[illegible] tunity. is confi[illegible] distinc[illegible] to be [illegible] be of s[illegible]

Sewage Interception Work.

Difficulty has occurred in this department of the Committee's work which may lead to eventual trouble of a serious kind, particularly in face of the fact that diseases are exceedingly prevalent in the city and urhood at the present time. A strike of some fifty-men who are engaged in removal of the pans shows ction which should be got over at the earliest opportunity. The work is not agreeable, and the limitation ed to ash tubs and not to trade refuse. Upon this on the difference appears to have originated. It is oped that in the interests of the public health it will ort duration.

Feb. 18th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Liverpool Royal Infirmary.

THE annual meeting of the trustees and subscribers of the Royal Infirmary was held on Jan. 30th. The treasurer, in his report, states that the total number of sufferers who have benefited by the charity has again increased. It will be seen, however, that, as compared with the previous year, the number of in-patients shows a reduction, although the average number of beds occupied has remained the same. This is accounted for by the increased proportion of serious cases now attracted to the infirmary from a very wide area. The great increase of work, however, is most shown in the out-patient department, and is chiefly surgical, augmented of late, no doubt, by the special treatment of eye, throat, and skin. Many cases which would have formerly occupied beds are now successfully treated in the out-patient department. This is of great value to the medical students, whose number are constantly increasing, in anticipation, possibly, of the new medical school, which may be already spoken of as practically even now under reconstruction in connexion with University College, Liverpool. The financial position of the institution has within the last few days been much brightened by a noble donation of £5000 from Mr. Henry Tate, who has always been a staunch and liberal supporter of the charity. The funds of the institution have benefited by the Hospital Sunday and Saturday collections to the amount of £2438, whilst the President, Mr. George Holt, contributes 500 guineas on his retirement from that office.

Liverpool Northern Hospital.

The annual meeting of the subscribers to this hospital was held at the town hall on the 7th inst. The committee appeal to the public of Liverpool to contribute the necessary funds to enable them to avail themselves of the munificent grant of £60,000 offered by the David Lewis trustees for the building of a new hospital, the pressing need of which has become so universally recognised. The following are some of the more prominent objects for which these further funds are required—viz.: (1) to pay off the large debit balance due to the bankers; (2) to complete the furnishing and equipment of the new hospital buildings and nurses' home; (3) to provide the cost of purchase of the additional land for the extension of the present site; and (4) to establish a maintenance fund for the future working of the hospital. For these purposes a sum of at least £40,000 will be required in addition to the grant of £10,000 made by the corporation. Several subscriptions towards these objects have been promised, comprising one of £5000 from Mr. Henry Tate, the well-known philanthropist.

The Royal Southern Hospital.

The annual meeting of the friends and supporters of this institution was held at the town hall on the 10th inst. From the committee's report it will be seen that the number of cases treated again shows an increase, the total being 10,745, of whom 2008 were in-patients and 8737 out-patients; the daily average of beds occupied was 171. The nursing institution connected with the hospital has well maintained its reputation; but, in order to meet recent requirements, it has been decided, on the advice of the medical board, that an extension of the term of training shall be given to the nurses in the hospital prior to their being admitted to the institution. The committee deplore the financial position of the charity, which shows an adverse balance on the working account of £3804 besides the debt on the nurses' home.

Liverpool Convalescent Institution.

At a meeting of the council of the Liverpool Convalescent Institution, Woolton, held on Saturday, 8th inst., it was announced by the chairman that Mr. Henry Tate had promised a donation of £1000 with which to endow two beds in the institution.

North-Western Sanitary Inspectors' Association.

At a meeting of this association, held on the 8th inst., a lecture on Milk in Relation to its Power of Conveying Disease was delivered by Mr. Edward Sergeant, medical officer of health to the Lancashire County Council. He mentioned instances where the spread of epidemics to various localities had been clearly traceable to the contamination of the milk-supply. In indicating the steps which ought to be taken to secure immunity from diseases thus conveyed he suggested that not only should shippons be constructed on approved sanitary principles with regard to light, ventilation, and breathing space, but thorough cleanliness should be observed by milkers in regularly cleansing both their hands and the cow's teats, as well as the milk vessels. He was sorry to say that not more than half the local authorities in Lancashire enforced the working of the Act as it ought to be done. The chairman, in thanking the lecturer for his address, said that he was convinced that it was a much better plan for milk-sellers to make use of the tap system of distribution in preference to the open can now employed, even though it entailed trouble in cleaning out the tap.

Additional Honorary Assistant Physician to the Royal Infirmary.

The committee of the Royal Infirmary, Liverpool, have decided, owing to the great increase of work in the out-patient department, to recommend the appointment of an additional assistant physician. The candidates for the new post are John Hill Abram, M.D. Lond., M.R.C.P., pathologist to the Royal Infirmary; Hugh R. Jones, M.A., M.D. Cantab., Howard Medalist, Royal Statistical Society; and R. J. Buchanan, M.D. Vict., assistant physician to the Liverpool Hospital for Consumption.

Feb. 10th.

WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Royal United Hospital, Bath.

THE Mayor presided at the annual meeting of the subscribers held on Feb. 6th at the Guildhall. The report showed that during 1895 1387 in-patients were admitted, and the out-patients numbered 9912. Financially the expenditure had been kept within the receipts, but an over-draught of £1017 remained from previous years. The donations and collections had increased, but there was a falling off in the annual subscriptions. The nursing institute had done good work and handed over £300 to the hospital. It was hoped to provide new kitchens and a new sitting-room for the nurses without calling on the ordinary funds of the institution.

Analysis of the Water in the Bristol Channel.

Visitors to Clevedon and Weston-super-Mare are frequently struck with the dirty colour of the sea-water at these watering places. A member of the district council of the former town has made an analysis of the sea water and finds that, although it has a dirty brown colour, the matter in suspension is very small—viz., 25·33 grains per gallon. The subsidence of the matter settled in from four or five hours, the water being of a greyish tint; the colour is mainly due to the presence of iron.

The Proposed New Appointment at Cardiff.

The promoters of the petition praying for the appointment of a female surgeon to the Cardiff prison have forwarded a very extensively-signed petition to the Home Secretary. The signatures include those of members of University College, the board of guardians, the school board, and the members of committees connected with all kinds of women's work, and amongst others Mrs. Fawcett has greatly interested herself in the subject. It is stated that more would have signed had they not previously promised their support to some of the candidates applying for the now

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vacant post of prison surgeon. This suggested appointment is an additional one, and would, it is alleged in the petition, interfere but slightly with the duties of the ordinary prison medical officer. The ladies are still actively engaged in the matter, and are sanguine that they will be able to induce the Home Office to grant their request.

The Health of Bristol in 1895.

The medical officer of health for Bristol, Dr. D. S. Davies, reports that during 1895 the birth-rate in Bristol averaged 28·9 per 1000 living, as compared with 28·2 in 1894, and the death-rate was 18·1 per 1000, against 17·2 for the preceding year. The infant mortality, which had been 141 and 150 in the two preceding years, fell again to 143 per 1000 births for 1895. The zymotic death-rate, which had been 2·0 the previous year, declined to 1·3 per 1000 for 1895, the deaths referred to these diseases numbering 295, and including 171 from diarrhœa, 21 from "fever," 16 from scarlet fever, and 8 from measles.

Death of Mr. T. Edis, M.R.C.S., L.S.A., of Gloucester.

Mr. Thomas Edis, M.R.C.S., L.S.A., died on Feb. 8th, after a short illness, at the age of seventy-three years. He received his education at St. George's Hospital and qualified, taking the M.R.C.S. in 1847 and two years later the L.S.A. He practised at Brixton, Stokechurch, Oxford, and for the past thirty-four years at Gloucester, where his geniality and kindness made him a large circle of friends.

The Horfield (Bristol) Drainage.

The Horfield Sewage Works, a short account of which was given in THE LANCET of Dec. 7th, 1895, were formally opened on Feb. 10th in the presence of a large number of people, including representatives of the urban district council and other authorities. The scheme has been practically complete and working for two months, therefore it had received a thorough testing before the official opening. The results have been satisfactory, the odour at the works have been slight, the filtered effluent has been clear, and there has been a good demand for the compressed sludge, which is sold as garden manure. The undertaking has involved a considerable outlay, but the originators are very sanguine that it will prove thoroughly efficacious in meeting the requirements of the district, and that it will be a useful object-lesson to other district councils.

Vaccination Grant.

Mr. Edward J. Sheppard, L.R.C.P. & S. Edin., the public vaccinator for the Clifton (Bristol) district, has for the third time been awarded the extra Government grant for efficient vaccination.

Annual Meeting of the Taunton and Somerset Hospital.

The annual meeting of this institution was held on Feb. 12th, the Mayor of Taunton presiding. The receipt of a legacy bequeathed by the late Mr. Thorn of Utica, America, of £1017 enabled the committee to have a balance in hand of £100, but the urgent need of increased support was pointed out. An alteration was made in the rule to prevent the election of any undesirable person on the staff of the hospital, as might possibly have occurred under the present rule. The committee state that some opportunity of outdoor recreation had been provided for the nurses. Dr. E. Liddon, J.P., was elected president for the year.

Feb. 19th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Health of Edinburgh.

AT the meeting of the public health committee of the Edinburgh town council last week the medical officer of health reported that the total number of deaths recorded last month was 340, a death-rate of 14·75 per 1000, as compared with 542 in January, 1895, and 433 in January, 1894, the average death-rate during January for the last five years preceding 1896 having been 21·52 per 1000. As regards the period of life at which death occurred, 112, or 32·94 per cent., of the total deaths were registered as over sixty years; 86, or 25·29 per cent., between thirty and sixty; 37, or 10·88 per cent., between five and thirty; and 105, or 30·88 per cent., under five years. Deaths from zymotic diseases amounted to 19, or 5·58 per cent. of the total mortality, while 119, or 35·00 per cent. of the whole, were due to diseases of the chest, and 56, or 16·47 per cent., to debility and old age. The birth-rate for the month was 25·82 per 1000, the total number of births having been 595. It was also reported that during the month 12,840 lbs. of unsound meat were seized or delivered up in the city.

The Morison Lectures.

Dr. A. Bruce continued his lectures on the Nerve Tracts on Feb. 14th and 18th. He completed the consideration of the tracts in the cord, and passed on to the tracts and nuclei in the medulla. The lectures were richly illustrated by sections and diagrams shown by means of lime-light.

Queensberry House, Edinburgh.

The report by the directors of the House of Refuge, Queensberry House, Edinburgh, for last year states that 385 persons were admitted to the institution during that period, and the daily average of inmates was 276. In the report by Dr. William Russell, the visiting physician, it is stated that on the termination of the frost in March of last year there was a smart outbreak of influenza both in the house and hospital, more of the inmates having been affected than in the preceding years when influenza was prevalent. The cases were, as a rule, mild, but four were fatal from pneumonia. These occurred in persons from eighty to eighty-seven years of age. The total number of deaths during the year was 28, one-third of the deaths being in persons over eighty years of age and 70·3 per cent. in persons over seventy years. Of the causes of death, as tabulated, none are ascribed to senility pure and simple. It is suggested that arrangements should be made to provide more suitable accommodation for the treatment of cases of acute disease occurring amongst the inmates.

Edinburgh and Leith.

The authorities in Leith have at last decided to withdraw their opposition to the erection of the temporary hospital at Quarryholes required by Edinburgh.

Dr. J. B. Russell on the Prevention of Tuberculosis.

The Medico-Chirurgical Society of Glasgow some time ago submitted a series of resolutions to the health committee of the town council calling their attention to the fact that "tuberculosis is now fully recognised as an infectious disease," and asking the committee "to take the matter into their serious consideration with a view to the protection of the community from the infection." The memorial was remitted to Dr. J. B. Russell, the medical officer of health, who has just issued a report dealing with the whole subject of the relation of the public authorities to tuberculosis. Dr. Russell introduces his report by a short statement of the nature of tuberculosis, and by an account of the life history of the bacillus and of the conditions which determine the spread of the disease. He recognises that the chief source of infection is the sputum of phthisical patients which, allowed to dry, distributes the bacillus in the atmosphere. The milk and flesh of tuberculous animals must, however, be regarded as such distinct sources of infection that there is ample ground for public interference to prevent the spread of the disease through their use. To deal with the two last-mentioned sources of infection Dr. Russell contends that the selection for purposes of human food of portions of carcases in any part of which tubercle has been found must be done, "if at all," by properly qualified officials. He urges the necessity of taking immediate action to eliminate tuberculous cows from dairies in the city and neighbourhood and to enforce sanitary reform in the construction and condition of the byres. For these purposes he advises the appointment of a skilled veterinary expert and the use of tuberculin as a diagnostic agent. With regard to the position of tuberculosis as an infectious disease, Dr. Russell insists that even in the form of phthisis the disease, "though in all cases caused by infection," is not infectious in the *popular* sense, and that the indiscriminating application of the term "infectious" to the disease is already causing much pain and prejudice to individuals, and is injurious to the public interest. It is not the phthisical patient, but his bad habits—resulting from ignorance—which are a source of danger. Let the sputa be properly dealt with and the patient is no longer a danger to the community. Regarding phthisis, therefore, as infectious only in the *academic* sense, the report proceeds to consider how far the various administrative sanitary measures are applicable to tuberculous patients. The doctrine of the "extremists" recommending compulsory notification and isolation is declined as unsuitable to such a chronic disease as phthisis, as still less applicable to other

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forms of tuberculous disease, though the removal of advanced cases where the special precautions necessary for the disinfection of the sputa, &c., are wanting, and the surrounding conditions are hygienically bad, is recognised as a useful preventative measure. Even this, however, would be a novel task for the public authorities, being in fact the provision of "shelters for incurables," and essentially different from the isolation for curative purposes of patients suffering from the specific fevers. Any provision which exists for the treatment of phthisis most certainly ought, in Dr. Russell's judgment, "to be patronised by the authorities." The report emphatically declines to recommend any measures which would surround phthisical patients with restrictions and brand them as a danger to the community. These are stigmatised as cruel and inexpedient because unnecessary. But a distinct field for municipal activity in the prevention of the spread of tuberculosis remains apart from proceedings painful to the individual and unnecessary for the protection of the community. Public opinion may be educated by a knowledge of the fact that it is from infected sputa allowed to dry that danger arises. Disinfection effectively carried out should be insisted on after every death from phthisis, and also at the discretion of the medical officers in the course of this or other forms of tuberculous disease. The milk and meat supplies of the city should be under energetic and capable control, and the authorities, by the application of their powers with regard to the construction of dwelling-houses, the ventilation of factories, the enforcement of all sanitary police measures, the development of public parks and the provision of playgrounds in the crowded parts of the city, should secure, as far as is possible, the conditions necessary to obtain strong and resistant constitutions for the youth of the city the welfare of which it is their duty to promote. The report is provided with numerous tables and documents showing the aspects in which the subject has been regarded by various sanitary authorities in this and other countries, and will undoubtedly occupy a leading position in the discussion of the important subject with which it deals.

The New Photography in Aberdeen.

The Roentgen rays have been used for surgical purposes in Aberdeen. Mr. J. M'Kenzie Davidson has succeeded by this new method in locating the exact position of a needle in a patient's foot, thereby greatly assisting the operation for its extraction. Mr. Davidson is to deliver a lecture in the Mitchell Hall, University Buildings, on Light and Colour, illustrated by "shadowgrams." The proceeds will go to the benefit of the Aberdeen Ophthalmic Institution, which was lately removed to premises in King-street, fitted with eight beds for in-patients. From the proximity of the new premises to the numerous granite works the number of cases at the Ophthalmic Institution has considerably increased.

Feb. 18th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons in Ireland.

AN examination for the Fellowship of the Royal College of Surgeons in Ireland commenced on Monday, the 17th inst., when nine candidates presented themselves—five in the primary and four in the higher grade. Two of the gentlemen who are being examined in the primary grade are students who have recently passed the second professional examination of the College, this being the first occasion on which the new regulation, by which student candidates are permitted to present themselves for the primary test, has been utilised.

Local Government Board Inquiry at Cookstown.

Certain complaints having been made respecting the management of the Cookstown Workhouse Fever Hospital during the outbreak of typhus fever which took place in the months of September, October, and November, 1895, an inquiry was recently held by Mr. Agnew, inspector of the Local Government Board; and on Feb. 8th, at a meeting of the Cookstown board of guardians, a letter was read in reference to the matter from the secretary of the Local Government Board. This board are of opinion, guided by the evidence given at the inquiry, that the fever hospital nurse should be cautioned to pay greater attention to the condition of the bed-clothing and bedding in the hospital. It seems tea was prepared for the patients in the hospital usually at about 7 A.M. and not served until 8.30. The Local Government Board point out that tea made in this manner is neither wholesome nor palatable. They also think that duties such as was alleged (washing of blankets) should not be imposed on convalescent patients. They also say that the fever hospital nurse should have given more attention to the lighting of the wards at night. With regard to the most serious allegations made at the inquiry—that the remains of a deceased patient were allowed to remain in the hall or in the surgery from a Wednesday to a Friday and that the remains of a male patient were left in the ward occupied by five patients for two nights and one day—the Local Government Board consider that the responsible officers were guilty in these cases of serious neglect of duty and disregard of sanitary rules. They say it was the duty of the master, when the death of the patient was reported, to have seen that the remains were at once removed to the deadhouse pending the necessary arrangements being made for the interment. But before coming to a definite conclusion as to the course which the Local Government Board should take in the matter they are willing to consider any explanation which the master may desire to offer on the subject. They also request that the medical officer may be called upon to explain why he permitted such a state of things to occur in the hospital under his charge. The Local Government Board trust that the Cookstown guardians will consider the important subject of the want of adequate sanitary accommodation in the hospital as given in evidence by their medical officer. This important report the guardians directed to be communicated to the fever hospital nurse, the master, and the medical officer. The two latter are to report in writing in two weeks.—At the weekly board of guardians at Cookstown on Feb. 15th it was reported that the letter from the Local Government Board in reference to the management of the fever hospital had been read to the medical officer, the master, and the nurse. Explanations having been received from these it was unanimously agreed by the guardians to forward the following resolution to the Local Government Board: "That having heard and considered the statement and explanations of the medical officer and master of the workhouse, with reference to permitting the remains of Rose Donnally to be kept in the surgery of the hospital, and the remains of John Wyle to be left in the ward of the hospital, we accept them, and consider that under the circumstances mentioned no serious blame attaches to either the medical officer or the master; and we desire to add that they, in our opinion, have always been most efficient, careful, and attentive in the discharge of their respective duties, and in the emergency resulting from the outbreak of fever were most diligent in their efforts to do the best they could in the unusual and trying circumstances."

Omagh District Asylum.

At the monthly meeting of the board of this asylum held on Feb. 13th Dr. Carre (medical superintendent) in his report alluded to the insanitary state of the asylum. Since the last meeting there had been five deaths—three from phthisis, one from typhoid fever, and one from exhaustion after a severe attack of erysipelas. No contract has been entered into for heating the asylum or for plumber's work. The board passed a resolution bringing under the notice of the board of control the danger at present existing in the crowded state of the house from the delay in the progress of the new works, and also the fact that the heating and plumbing contract has not yet been entered into.

Important Discussion with regard to the Care of Lunatics in District Asylums and in Workhouses.

The medical inspectors and the architect of the Board of Control met the house committee of the Cork Lunatic Asylum for the purpose of discussing with them the best means of providing increased accommodation in the asylum. Whilst the late Government were in office the authorities at Dublin Castle wrote to say that the district asylum was the proper place for lunatics detained in workhouses, and that the governors were legally bound to provide sufficient accommodation for them. The governors, feeling there was no help for it, discussed various plans, and came to the conclusion that they would be obliged to expend some hundreds of thousands of pounds. But now a contrary opinion has been received from the officials of the present Government, and the governors of the asylum are informed that it is not imperative on them to provide for the maintenance of harmless lunatics already domiciled in the workhouses of the

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county. However, as there has been overcrowding in the asylum for some time past, the inspectors and the governors considered it desirable that some steps should be taken for the purpose of obviating that state of affairs. The inspectors and architect made a proposal which was very favourably received by the house committee and afterwards by the full board of governors. The suggestion was that a hospital should be built on grounds adjoining the asylum at a cost of about £35,000, and that all curable cases should be removed to that hospital, which would be an establishment complete in itself with an assistant physician resident on the premises. Apart from the humanity of such a course, it was pointed out that a saving in establishment charges is likely to occur eventually owing to many of the poor patients being enabled to return home at an earlier date than could be expected under the present system, which permits of the intercommunication of curable and perfectly hopeless cases. One of the inspectors stated that it is probable the Government will bring in a Bill for the purpose of enabling the Board of Control to build suitable accommodation in connexion with workhouses for the treatment of incurable lunatics. There is also an idea that a capitation grant will be made by Government for their maintenance.

Feb. 18th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Medical Men and Life Assurance Companies.

A FEW years ago Dr. Gibert of Havre put the following question to the Société de Médecine Légale: Should the medical attendant supply a life assurance office with a certificate giving detailed information concerning the last (fatal) illness of a patient who was insured in such an office? Actuated doubtless by the obligation imposed by the *secret professionel* the society replied in the negative. That body has just (Feb. 10th) confirmed this ordinance, and further recommends the practitioner to refuse such certificate to the family, who frequently require the document for insurance liquidation purposes. I do not know how such reserve on the part of a medical man would be welcomed in our own country, but professional secrets are jealously guarded in France, and, what is more, a refusal to divulge them would be almost certainly approved of by the tribunals.

Treatment of Obstinate Hiccough by Tongue Traction.

Most practitioners must have been puzzled to know how to remedy that distressing condition — obstinate hiccough. Emetics, apomorphia, nitro-glycerine, morphia, pressure over the phrenic nerve, &c. have frequently been tried successively and found to be inefficacious. Professor Lépine of Lyons had recently under his care a young girl who had for four days been afflicted with hiccough, the respiration being 30 per second. The girl was not hysterical, but complained of certain symptoms of dyspepsia. Asked to show her tongue, she held "the unruly member" outside the dental arches for some time. Struck by the cessation of the hiccough while the tongue was in this extended position M. Lépine maintained the traction for several minutes, with the result that the symptom disappeared definitely. This is not the first successful application of the method for the cure of hiccough, M. Viaud having reported two cases in 1894.

The Heart in Hump-backed Persons.

M. Huchard[1] tells us that the lungs in persons affected with the above-mentioned deformity undergo a process of atrophy which is more or less considerable according to the degree of the spinal curvature and the consequent alteration of the thorax. This atrophy affects the heart just as emphysema does, the right ventricle becoming dilated. This in its turn brings about a particular kind of dyspnœa, or rather polypnœa, with almost exclusively diaphragmatic breathing. Venous stasis is the consequence, and in these deformed persons asphyxial symptoms always precede dyssystole, whereas in true "cardiacs" the contrary is the case. In those individuals then affected with gibbosity we must recommend the avoidance of all constriction of the chest, and more especially treat promptly and actively an attack of bronchitis, which is always a serious matter under the condition above mentioned. Should signs of asphyxia appear in the course of such an attack M. Huchard urges the importance and necessity of phlebotomy.

[1] Journal de Médecine et de Chirurgie Pratiques, Feb. 10th, 1896.

The Fecundity of the Frenchwoman.

In a suggestive article in the *Revue Scientifique* of Feb. 8th M. Turquan states that between the ages of fifteen and nineteen years the fecundity of his countrywomen is scarcely if at all inferior to that of other European women at the same period of life. After the age of twenty years, however, the fecundity falls to two-thirds of that of other European women, and this proportion falls to one-half beyond the age of thirty-five. Speaking generally, French natality is to natality in the other European races as two is to three. Were French mortality as proportionally small equilibrium would be established. Unfortunately, many European countries enjoying a birth-rate almost double that of France have the additional advantage of a death-rate which is one-third less than that of this country.

The Seventh Congress (annual) of the Alienists and Neurologists of France and of French-speaking countries will be inaugurated at Nancy on Aug. 1st, under the presidency of M. Pitres, Dean of the Faculty of Bordeaux. The questions *à l'ordre du jour* are: (1) pathogenesis and physiology of hallucinations of hearing; (2) semeiology of tremblings; and (3) the internment of lunatics in special asylums in its therapeutical and legislative aspects.

The death is announced of Dr. T. Laennec, formerly Director of the Nantes School of Medicine and nephew of the great Laennec. Dr. T. Laennec graduated M.D. in 1856.

Feb. 18th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

An Outbreak of Small-pox in a Berlin Hospital.

CASES of small-pox are very rare in Berlin, and there has been no real epidemic since the introduction of compulsory vaccination, but instances occur from time to time in foreigners passing through this town from the countries lying to the eastward, especially from Russia. In this way it has come to pass that the majority of the Berlin medical men have never had an opportunity of studying small-pox, and the profession and the public were therefore rather startled by the news that it had broken out in the Friedrichshain Hospital. Fortunately, however, the epidemic has been confined within narrow limits. I learn from a report of Professor Fürbringer, chief physician to the above hospital, that on Oct. 19th, 1895, a girl of three years of age was brought there as suffering from measles. The physician on duty thought the case to be varicella, but as the patient's temperature became very high and her general state worse and worse, she was carefully isolated and treated as suffering from small-pox. Death occurred on the fifth day. As no case of this kind had happened either in the house where the child lived or in the neighbourhood, the diagnosis was for some time doubtful, but on Oct. 29th a girl aged three months, sister of the original patient, was admitted, and on the following day five persons in the hospital pavilion where the first case had been, suddenly became ill—a nurse, a housemaid, and three convalescents. The diagnosis being now quite certain all the patients were brought from the Friedrichshain Hospital to Professor Koch's hospital for infectious diseases. Two days later a child suffering from whooping cough, who had been in the upstairs ward of the hospital pavilion, became ill, although she had not been in any direct contact with the first mentioned child. This was the last of the hospital patients to be taken with the disease, but on subsequent days five other persons who had been engaged about the first child were attacked—a servant who had carried the child's linen to the laundry, a tradesman of the hospital who, prompted by curiosity, had watched the removal of the patient from the Friedrichshain Hospital to the small-pox hospital, and three students who were present at the post-mortem examination of the child. Immediately after the outbreak of this epidemic energetic measures were taken to prevent a further spread of the disease. The pavilion where the cases arose was shut up and all its occupants belonging to the staff were forbidden to leave the premises. Unfortunately the law did not sanction the detention of those patients who wished to be discharged, but they were earnestly requested to give immediate information in the event of their feeling unwell.

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The whole pavilion was thoroughly disinfected and all the patients of the hospital, the staff, nurses, servants, and case had been vaccinated, although no assistant had occurred in any but the one pavilion. Dr. Vagedes, Koch's physician of the small-pox wards of Professor series of hospital, states, in a further report on this remarkable the city cases, that only three patients came directly from first attacked a boy who lived in the neighbourhood of the girl a medical and had slept on the sofa where she had lain, pox was student who had visited Professor Koch's small- the patients in order to see the cases, and another medical instance who had not in any way come in contact either with traced. in which the source of the infection could not be were vaccinated, either by inadvertence or because they had not yet reached the required age. In all the other cases the symptoms were of the mildest and the patients might have been discharged in a few days. Still more remarkable is the fact that in the families where these cases had happened the vaccinated children were unaffected, whilst all the others caught the disease. By very painstaking inquiries Professor Koch succeeded in discovering that the primary source of the epidemic was a foreigner who had come a few days before from Russia and had lived in the house of the family first attacked. This man had suffered from an exanthem and had gone to a dispensary, where the case was registered as urticaria varioliformis, but he had left the town before the development of the epidemic, and could not be subsequently traced by the physicians. This small epidemic once more examined in a remarkable way the inestimable value of compulsory vaccination, although it is still contested by a considerable portion even of the educated classes. Perhaps the anti-vaccinationists will now become less confident in view of the fact that it was possible to confine this dreadful disease within a small area, in spite of the fact that it made its appearance first in a very poor and dirty quarter of the city and then in an overcrowded hospital.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Antistreptococcic Serum in Scarlet Fever.

Dr. MARMOREK, writing in the *Medicinische Wochenschrift*, has given an account of the treatment of scarlet fever with antistreptococcic serum. Although the microorganism of scarlet fever has not yet been discovered the relation of streptococci to scarlet fever is of great importance, for their presence in the numerous sequelæ of this disease, such as abscesses, nephritis, and endocarditis, shows the danger of such a combined infection. From Oct. 16th up to the end of December, 1895, Dr. Marmorek had under his care 103 children affected with scarlet fever, and 96 of them were treated by injections of serum, the total quantity of which amounted to 30,000 units. In 7 cases which were admitted in a state of total exhaustion no injection was performed. Of 17 cases in which Löffler's bacilli also were found, 4 died in spite of the injection of both diphtheria antitoxin and antistreptococcic serum. In slight cases 30 c.c. of serum were injected, in urgent cases 40, c.c., 60 c.c. and 70 c.c.; 90 c.c. were injected in a case complicated with broncho pneumonia. The most remarkable effect was the decrease of the swelling of the lymphatic glands. Albuminuria was sometimes observed two days after the injection. The pulse became slow and strong and the exudation in the pharynx was cast off.

Tabes and Syphilis.

Tabes has been supposed to be a sequela of syphilis ever since syphilis was found by Gower in 70 per cent., by Erb in 35 per cent., by Fournier in 93 per cent., and by Moebius even in 100 per cent. of tabetic patients, but Dr. Gluck in a highly interesting pamphlet has now endeavoured to refute that theory. He relies greatly on the facts that syphilitic reinfection can only occur after the first infection has entirely disappeared, and that no one has hitherto observed syphilomata belonging to the first infection co-existent with recent forms of syphilis or moist papules. Diday considered that the curability of syphilis might be inferred from this circumstance of reinfection. Secondary and tertiary symptoms when occurring together belong to the same infection. Were tabes caused by syphilis a second infection in a tabetic patient would be impossible, his immunity having not yet ceased, and the occurrence of recent syphilis in tabes is an additional proof that the latter is not of syphilitic origin. Such a lesion as grey degeneration of the posterior columns of the spinal cord has not yet been observed in syphilis and is doubtless a primary degeneration of the nerve fibres. Moreover, antisyphilitic treatment even in the case of recent tabes is of no avail. There is no constant relation between these diseases, for tabes is rare among negroes and certain peoples of Asia in spite of the fact that syphilis rages among them. Dr. Gluck has had fifteen years' experience in Bosnia, where all the inhabitants of some districts suffer from syphilis, syphilomata of the skin and syphilitic diseases of the bones and nervous system being quite common, but no case of tabes came under his observation, neither has any case of tabes been registered among 3000 patients admitted to the Serajevo Hospital, from July 1st, 1894, to October, 1895. In his opinion syphilis may sometimes give rise to ataxy but never to tabes.

Early Nervous Manifestations in Syphilis.

At a meeting of the Vienna Medical Club Dr. Kahane described a case of malignant syphilis in which nervous disorders were observed in the second stage. The patient, who was a drunkard and had acquired syphilis some seven months previously, was suffering from paresis of the left arm and leg and of the face, due either to gummatous meningitis or to changes in the vessels. As gummatous meningitis would give rise to general symptoms and disease of the cortex of the brain would cause Jacksonian epilepsy he supposed the patient's condition to be dependent on syphilitic endarteritis of the artery in the Sylvian fissure.

Pulmonary Actinomycosis.

At the last meeting of the Medical Society Dr. Halban exhibited a case of Primary Actinomycosis of the Lungs. He remarked that sixty cases of this disease had been published since Israël described it in 1885, and that it might be consequent upon an affection of the upper or lower jaw originating in carious teeth, but cases not uncommonly occurred in which no caries of the teeth was to be observed. According to some writers the infection was conveyed by inhalation into the lungs. There were three stages in the disease; the fungus first caused bronchitis without any remarkable symptoms beyond a slight infiltration in the right upper lobe and cavities, In the further course of the disease the lung was transformed into a hard, dense mass, nodulated on the surface and shrivelled. In the third stage the diseased growth reached the soft parts and the skin and presented the appearance of a hard, irregularly shaped tumour, with numerous fistulæ discharging a purulent fluid. During this period cutaneous emphysema might sometimes be observed. The expectoration was scanty and slimy, and grains of the fungus, but no tubercle bacilli, were to be found in it. Microscopical examination showed clusters of actinomycetes, red blood corpuscles, and elastic fibres. As regards treatment, residence in a mountainous district might be beneficial in some cases; the late Professor Billroth obtained gratifying results by injection of tuberculin, but Rydigier recommended the injection of a 0·1 per cent. solution of iodide of potassium into the infiltrated tissue.

A New Test for Albumin in the Urine.

Reagents for the detection of albumin in the urine must be colourless and must reveal the presence of albumin even when the amount is too small for quantitative estimation. Dr. Jolles has published a new and delicate test, consisting of 10 grammes of chloride of mercury, 20 grammes of succinic acid, 10 grammes of common salt, and 500 grammes of distilled water. In the process of testing 4 c.c. of the filtered urine are mixed with 1 c.c. of acetic acid, and 4 c.c. of the above reagent are added with shaking. In a second glass similar quantities of urine and acetic acid are mixed with pure water instead of with the reagent. This test yields a cloudiness of albumin in cases where the ordinary tests fail to give any result at all.

Mummification of the Forearm after Extirpation of Uterine Carcinoma.

Professor Braun, at a recent meeting of the Vienna Medical Society, described a case of Mummification of the Right Hand and Forearm following the Extirpation of a Carcinomatous Uterus which was removed per vaginam four months ago. Two days after the operation the patient showed

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paresis of the right upper extremity and livid colouration of the forearm, the skin being dry and exfoliating. On the third day there was complete mummification, no pulse was to be felt in either the ulnar or the axillary arteries and amputation was performed in January. Professor Weichselbaum, who made the pathological examination and exhibited the preparation, said that there was no change in the arteries of the forearm, except the presence of some coagula. In his opinion the case is remarkable on account of the mummification occurring in the forearm and also on account of the brain being affected, for the patient is at the present time suffering from right facial paralysis. The explanation may be a neuropathic necrosis due to destruction of the trophic centres; but this process being very rare the mummification may be due to the want of blood-supply. The blood pressure was but trifling, and, of course, vascular engorgement in the capillaries and veins took place with transudation into the soft parts and subsequent drying up. The cerebral lesion is embolic softening due to a thrombus in either the aorta or the heart from which particles are detached, giving rise to embolism of the axillary artery and also of the arteries supplying the fissure of Sylvius.

Feb. 16th.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The Twelfth International Medical Congress.

THE arrangements for the next International Congress, which will be held in Moscow in August, 1897, are now being worked out by the special committee appointed for the purpose. There will be twelve sections, as follows: (1) anatomy, (2) physiology, (3) general pathology and pathological anatomy, (4) general therapeutics, (5) internal diseases, (6) children's diseases, (7) nervous and mental diseases, (8) dermatology, (9) surgery and diseases of the eye, (10) midwifery and gynæcology, (11) hygiene, and (12) legal medicine. The Government has assigned 35,000 roubles for the expenses of the congress. The official language of the congress will be the French language, but in the general meetings, of which there will be three, communications may be made in any European tongue. In the sectional meetings only three languages will be admitted—namely, French, German, and Russian. It will be seen that in this respect the organising committee have altered their original intentions, which were to make French and German the official languages and to exclude all others completely. The propriety of admitting Russian communications to a congress held in the Russian capital cannot be questioned. Englishmen, however, must still regret that they will be debarred from making communications in their own tongue to the sectional meetings and that their only opportunity of reading papers in the English language will be in the three general meetings.

The Jenner Centenary in Russia.

The Russian National Health Society is making strenuous efforts for the success of the Jenner centenary celebration to be held in May. Much, however, of their success must of necessity depend upon the response made by English medical men to the overtures of the society. Although the method in which the society proposes to commemorate Jenner's great discovery has already been detailed in THE LANCET, I may be permitted to again call attention to it. There are offered four prizes, the first equivalent to 100 guineas, and a gold medal, for the best work upon vaccination. English is one of the languages in which the work may be written, and the work must be sent in before March 12th (New Style). An exhibition of relics of Jenner, and of books, pamphlets, prints, tabular returns, instruments, and other objects relating to vaccination or to Jenner will be held. It is to be sincerely hoped that any one possessing such objects will freely lend them to the exhibition. It would be a graceful act on the part of authors of books, pamphlets, or reports upon vaccination to present a copy to the permanent library of the Russian National Health Society to commemorate the occasion. The society is also publishing a history of the development of vaccination in Russia and other countries, and a full biography of Jenner, together with a portrait and copies of his drawings. The price of this "centenary edition" will be three roubles (about 6*s.*). The promises of subscription have so far come in well. Before the end of last year names of over 1000 subscribers had been received, and probably many more have since come in. The edition will be edited by Dr. Ladislas Hubert, the secretary of the society and an acknowledged authority upon vaccination. It is to his initiative that the scheme of the centenary celebration is due. Invitations have been sent to various learned societies and medical institutions in England to appoint delegates to attend the celebration, and some leading English physicians, whose names will probably be announced shortly, have consented to become its "patrons." All objects intended for the exhibition, as well as any other communication relating to the centenary, should be addressed either to Dr. Hubert, 15, Dmitrofski-pereoulok, St. Petersburg, or to Dr. F. Clemow, 69, Earl's Court-square, London, S.W., who is acting for the society in England.

The Odessa Medical Faculty.

The buildings of the new faculty of medicine in the Novorossiisk University in Odessa will be on a generous scale. The cost of the anatomical theatre and laboratories alone will be 319,150 roubles; the clinique will cost 386,880 roubles; paving of courtyards, planting of trees, and similar expenses are put down at 43,970 roubles; two new buildings in the University for chemical and physical laboratories will cost 20,000 roubles; so that the whole cost of the buildings will be as high as 950,000 roubles (about £100,000). The furnishing them will probably cost 250,000 roubles. In the clinique will be beds for 175 patients, and not for 255 as at first proposed.

Diminution of Cholera.

Cholera has quite disappeared from the government of Kief and is almost extinct in St. Petersburg. Between Jan. 19th and 26th (Old Style) there were eight fresh cases of the disease in the capital and five deaths. On the 26th only four cases of cholera remained under treatment.

Feb. 15th, 1896.

CONSTANTINOPLE.

(FROM OUR OWN CORRESPONDENT.)

Quarantine Measures.

THE General Board of Health publishes the following notice in the daily papers:—The existence of cholera in Egypt rendering it necessary to adopt prophylactic measures with regard to pilgrims proceeding to Hedjaz by way of the Suez Canal, the General Board of Health has decided that pilgrim ships coming from the Turkish littoral will proceed to the lazarettos of Clazomena, Beyrout, or Tripolis in Barbary, where they will be subjected to disinfection; here, too, their bilge-water will be pumped out and their provision of drinking water renewed, while the linen of the pilgrims will be disinfected. These vessels, as well as those coming with pilgrims from Morocco and Algeria, will cross the Suez Canal without communicating with the land, and will be under the supervision of pilots taken at Port Said who have previously undergone a quarantine of five days. The vessels will proceed direct to Djeddah. At this port pilgrims will be subject to medical inspection. Should a case of cholera occur during the passage the vessel will, immediately after its arrival at Djeddah, be isolated and sent to Camaran, where it will undergo the regular term of quarantine.

The late Dr. Soutsos.

The death is announced from Athens of Dr. Pericles J. Soutsos, Physician-in-chief of the Greek Army. Deceased was born at Odessa on Aug. 30th, 1829, and was a member of the well-known Phanariot family. His father, John Soutsos, was a Grand Dragoman of the Sublime Porte. He studied medicine in the university of Athens, and afterwards went to France to complete his professional studies. He returned to Greece in 1856 and joined the army, in which he served until the time of his death.

Feb. 5th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

A Presidential Address.

DR. W. SNOWBALL, the retiring President of the Victorian Branch of the British Medical Association, delivered a short address at the annual meeting in December. He considered that the union of physician and surgeon was becoming day

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by day more evident and that scientific surgical interference was fast supplanting the more empiric treatment by drugs, though no conscientious surgeon would speak of a surgical operation as devoid of danger. Exactness of diagnosis was all-important, and in this direction too much attention perhaps was given to laboratory work to the neglect of bedside observation. Speaking of the diphtheria antitoxin he remarked that there was a tendency to forget that it simply antagonised the diphtheritic virus, and that when the virus had produced actual structural change it was futile to expect benefit from its use. He strongly advocated the establishment by the Government of an Institute of Public Health where toxines and vaccines could be prepared and bacteriological investigations made. In diseases of children he referred to the advances made in the treatment of intestinal trouble, the keynote of which was asepsis of the intestinal tract, purity of the food-supply, cleanliness of environment, food, and bowel, the latter attained by lavage. He was strongly of opinion that amelioration of the medical diseases of childhood was to be effected rather in the household kitchen than in the laboratory of the pharmacist. In the surgical diseases of the young the results of wise and cautious operative interference were most satisfactory, as seen in erasions of joints and the treatment of intussusception and tuberculous peritonitis by laparotomy. For stone in the bladder he still preferred the lateral operation notwithstanding that the supra-pubic method was fashionable just now.

Proposed Maternity Hospital for Sydney.

Sydney is strangely lacking in proper accommodation for indigent maternity patients. The Benevolent Asylum has a lying-in department attached to it, but the buildings are now quite unsuitable and have been repeatedly condemned. Not very long ago reference was made to an outbreak of puerperal septicæmia that occurred there, leading to the resignation of the staff, who attributed the outbreak to the insanitary state of the buildings. The lying-in department of the asylum, however, is not the only provision for maternity patients in Sydney. Some time ago a Women's Dispensary was started in Hay-street by some members of the medical profession, with whom are associated some ladies on the board of directors. The directors have been making energetic efforts to collect funds to enlarge the building, and recently a deputation waited on the Colonial Secretary to ask the Government for a piece of land on which to erect a new maternity hospital; also to request a donation of pound for pound for any money subscribed for the building of the same. Some of the directors of the Benevolent Asylum also attended to urge the prior claims of that institution to Government assistance. All the Asylum authorities require is that the Government should take over the present site and grant them another more suitable for the purpose. The society has a building fund of £20,000, a sufficient portion of which it is prepared to devote to the building of a new maternity hospital if the Government will grant the required land.

Medical Journalism in Australia.

An amalgamation has just been effected between the *Australian Medical Journal* and the *Intercolonial Quarterly Journal of Medicine and Surgery*. The former publication was founded by the Medical Society of Victoria in the year 1856, and was for long the only medical journal in Australia. Then the *Australasian Medical Gazette* was started in 1881 in Sydney as the organ of the Victorian, New South Wales, and South Australian branches of the British Medical Association. Soon afterwards the Victorian branch made arrangements to publish its transactions in the *Australian Medical Journal*, and so it came about that the *Gazette* was the Sydney and the *Journal* the Melbourne medical publication. Then the branch of the British Medical Association in Brisbane arranged to publish its transactions in the *Gazette*, which became gradually more and more Australasian in character, while the *Journal* became more and more local and Victorian. Both were medical newspapers giving leading articles and local news not entirely medical though of professional interest. Nearly two years ago the *Intercolonial Quarterly* was started as a private enterprise in Melbourne by some members of the profession, who thought there was room for an independent journal of a more purely scientific character and free from localism in every sense. Last year the *Gazette* was purchased by the New South Wales Branch of the British Medical Association, and is now supplied, as well as the *British Medical Journal*, to all members of the branches of the British Medical Association in Australia, of which it is now the recognised organ. The new journal formed by the amalgamation of the *Quarterly* and the *Australian Medical Journal* is to be published monthly and called the *Intercolonial Medical Journal of Australia*. The editorial staff will be a large one, all the colonies being represented, and it is intended to make the new publication an independent journal of a thoroughly intercolonial character.

The Medical Congress in New Zealand.

The arrangements for the meeting of the Intercolonial Medical Congress of Australasia to be opened in Dunedin on Feb. 3rd are practically complete, and the meeting promises to be a great success. A considerable number will attend from the Australian continent, tempted to a large extent by the favourable opportunity afforded of seeing the magnificent scenery of New Zealand. Some alterations have been made in the positions of presidents of sections. Dr. Jamieson of Melbourne being unable to attend has resigned the Presidency in Medicine, and the position has been accepted by Dr. A. A. Lendon of Adelaide. Dr. MacCormick of Sydney has resigned and Mr. H. M. O'Hara of Melbourne has accepted the position of President of the Section of Surgery.

Report of City Coroner for Sydney for the Year 1895.

During the year 1895 the number of deaths reported to the City Coroner of Sydney was 541, 237 of which formed the subject of inquests. In almost every case the Government pathologist, Dr. G. E. Rennie, has made a report, and also a post-mortem examination in the majority of cases. The year has been one of suicides, especially towards its termination. In five days of December seven people committed suicide. The suicides run in cycles, one is followed by several in quick succession and then there is a lull. Shooting with a revolver is the most frequent method employed, then drowning, then poison, arsenic being the favourite. Infanticide has been less prevalent.

Case of Xerostomia.

At the last meeting of the South Australian Branch of the British Medical Association Dr. T. K. Hamilton exhibited a patient suffering from xerostomia, or persistent dry mouth. She was forty-six years of age and enjoyed good health up to March, 1895, since when she has suffered from dryness of the nose, throat, and mouth. The tongue was dry, glazed, red, and hyperæsthetic. The salivary glands did not respond to either mechanical, chemical, or mental stimuli, and only slightly and temporarily to electrical stimulation. Mastication was difficult, and the whole buccal cavity shared in the dryness; both taste and smell were defective. No treatment has had any effect, pilocarpin and electricity both failing to relieve the patient.

Jan. 2nd.

Obituary.

SURGEON-GENERAL J. EKIN, C.B., M.B. LOND.,
ARMY MEDICAL STAFF.

WE regret to announce the death, on the 14th inst., of Surgeon-General J. Ekin, C.B., at the age of sixty-seven. The deceased officer retired from the Army Medical Service a few years ago, and his loss will be greatly regretted, for he was most deservedly respected as an able officer and excellent administrator as well as an upright, honest man of excellent judgment. Surgeon-General Ekin had seen a good deal of field service. He served with the 4th Regiment at the siege and fall of Sebastopol, and received the medal with clasp and Turkish medal. He also served in the Afghan war of 1879–80, and accompanied Sir Frederick, now Lord, Roberts in his march to Candahar as principal medical officer of the infantry division, and was present at the battle of Candahar (mentioned in despatches, medal and clasp). He afterwards served in the Egyptian campaign of 1882, where he acted as principal medical officer of the First Division, and was present at the battle of Tel-el-Kebir (mentioned in despatches, medal and clasp, Khedive's star, and C.B.). He used to declare that he regarded his work as a medical officer in the brief Egyptian campaign as about the most fatiguing and arduous he had undertaken, and considered that the medical staff rendered excellent service on that occasion. He was

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for a time the principal medical officer at Netley, where he was very popular and much respected as a clear headed judicious administrator. He was a man of strong physique and good common sense, cultured, and of genial, kindly disposition. Surgeon-General Ekin studied at University College Hospital.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, and having conformed to the by-laws and regulations, have been admitted Members of the College, and are now entitled to practise medicine, surgery, and midwifery:—

Alexander, Herbert, L.R.C.P. Lond., Guy's Hospital.
Allport, Wilfred, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Aspland, William Harold Graham, L.R.C.P. Lond., London Hospital.
Atkinson, Frederick Holgate, L.R.C.P. Lond., Charing-cross Hospital.
Auden, George Augustus, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Bailey, Henry, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Banting, Cecil, L.R.C.P. Lond., University College Hospital.
Bell, Hugh Thomas Symes, L.R.C P. Lond., Guy's Hospital.
Bennett, Robert Allen, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Bensted, Lewin, L.R.C.P. Lond., Guy's Hospital.
Bird, John Wilfred, L.R.C.P. Lond., Guy's Hospital.
Biss, Hubert Elwyn Jones, L.R.C.P. Lond., Cambridge University and Middlesex Hospital.
Blaber, Percy Leonard, L.R.C.P. Lond., St. Thomas's Hospital.
Boyd, George Samuel James, L.R.C.P. Lond., London Hospital.
Braine-Hartnell, James Christopher Reginald, L.R.C.P. Lond., Middlesex Hospital.
Brodribb, Ernest, L.R.C.P. Lond., St. Mary's Hospital.
Bumstead, Henry James, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Burrow, Vincent, L.R.C.P. Lond., St. Mary's Hospital.
Butler, Arthur George, L.R.C.P. Lond., Guy's Hospital.
Cæsar, Richard Thompson, L.R.C.P. Lond., London Hospital.
Cavenagh, Mainwaring Wentworth Rowland, L.R.C.P. Lond., Adelaide University and London Hospital.
Cayley, Frank Peirson, L.R.C.P. Lond., Cambridge University and Middlesex Hospital.
Center, William Rudolph, L.R.C.P. Lond., London Hospital and Edinburgh University.
Challis, Oswald, L.R.C.P. Lond., St. George's Hospital.
Chapman, Algernon Vivian, L.R.C.P. Lond., Guy's Hospital.
Chatterton, Harold, L.R.C.P. Lond., University College Hospital.
Chopping, Arthur, L.R.C.P. Lond., St. Thomas's Hospital.
Chute, William Henry, L.R.C.P. Lond., Westminster Hospital.
Clarke, Harold Wrangel, L.R.C.P. Lond., St. Mary's Hospital.
Codrington, William James, L.R.C.P. Lond., St. Bartholomew's Hospital.
Cohen, Joseph, L.R.C.P. Lond., London Hospital.
Coleman, Maurice Were, L.R.C.P. Lond., St. Bartholomew's Hospital.
Connor, George Washington, L.R.C.P. Lond., Middlesex Hospital.
Cross, William Foster, L.R.C.P. Lond., St. Bartholomew's Hospital.
Crutchley, Edgar James Temple, L.R.C.P. Lond., Middlesex Hospital.
Culmer, John James, L.R.C.P. Lond., Guy's Hospital.
Daly, Nolan, L.R C.P. Lond., Guy's Hospital.
Dartnell, Louis Edward, L.R.C.P. Lond., London Hospital.
De Gébert, Louis Jean Adam, L.R.C.P. Lond., Middlesex Hospital.
Dibbs, William Stewart, L.R.C.P. Lond., Yorkshire College and General Infirmary, Leeds.
Dickins, Sidney John Oldacres, L.R.C.P. Lond., St. Bartholomew's Hospital.
Dingle, Harry, L.R.C.P. Lond., King's College Hospital.
Dolman, Arthur James, L.R.C.P. Lond., Guy's Hospital.
Druitt, Arthur Edward, L.R.C.P. Lond., St. Bartholomew's Hospital.
Durrant, Charles Edwin, L.R.C.P. Lond., St. Thomas's Hospital.
Evans, James, L.R.C.P. Lond., St. Bartholomew's Hospital.
Farrant, Charles, L.R.C.P. Lond., Westminster Hospital.
Ferguson, James Henry, L.R.C.P. Lond., Catholic University of Ireland and Richmond and Adelaide Hospitals, Dublin.
Fisher, John Cecil, L.R.C.P. Lond., Oxford University and St. Bartholomew's Hospital.
Fisher, Richard Denington, L.R.C.P. Lond., London Hospital.
Flavelle, John Mason, L.R.C.P. Lond., St. Bartholomew's Hospital.
Fort, Henry Richard Trecothick, L.R.C.P. Lond., Oxford University and Guy's Hospital.
Fowler, James Grant, L.R.C.P. Lond., London Hospital.
Garman, Cornelius Bernard, L R.C.P. Lond., London Hospital.
Gayer, Reginald Courteney, L.R.C.P. Lond., St. George's Hospital.
Gervis, Frederick Harcourt, L.R.C.P. Lond., St. Thomas's Hospital.
Graham, Sydney Gagg, L.R.C.P. Lond., Guy's Hospital.
Green, Howard, L.R.C.P. Lond., Charing-cross Hospital.
Gregory, Thomas, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Griffin, Alfred Ernest, L.R.C.P. Lond., Cambridge University and Middlesex Hospital.
Gwynne, William Purnell, L.R.C.P. Lond., Royal Infirmary, Bristol, and Guy's Hospital.
Hadow, Gerald Elliot, L.R.C.P. Lond., Cambridge University and St. Mary's Hospital.
Haigh, Harold, L.R.C.P. Lond., Cambridge University and St. Mary's Hospital.
Harcourt, John Charles, L.R.C.P. Lond., St. Thomas's Hospital.
Harvey, Henry, L.R.C.P. Lond., London Hospital.
Heath, Arthur, L.R.C.P. Lond., St. Bartholomew's Hospital.
Herring, Edward Ken, L.R.C.P. Lond., Middlesex Hospital.
Hichens, Peverell Smythe, L.R.C.P. Lond., Oxford University and St. Thomas's Hospital.
Hilliard, Harvey, L.R.C.P. Lond., Charing-cross Hospital.
Hobday, James, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Hopkins, Walter Kempson, L.R.C.P. Lond., St. Bartholomew's Hospital.
Howell, John, L.R.C.P. Lond., Guy's Hospital.
Hunter, Clement Harris, L.R.C.P. Lond., Guy's Hospital.
Hussey, James, L.R.C.P. Lond., St. Bartholomew's Hospital.
Hyde, Harry Feeney, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Izard, Herbert Edward, L.R.C.P. Lond., Guy's Hospital.
Jackson, Thomas Leonard, L.R.C.P. Lond., Cambridge University and Guy's Hospital.
Jameson, Robert William, L.R.C.P. Lond., St. Bartholomew's Hospital.
Jones, Frederick Pryce, L.R.C.P. Lond., Charing-cross Hospital.
Jones, Philip Theodosius, L.R.C.P. Lond., St. Bartholomew's Hospital.
Jones, Samuel Lloyd, L.R.C.P. Lond., University College Hospital.
Jones, William Meredith, L.R.C.P. Lond., Charing-cross Hospital.
Kempster, Christopher Richard, L.R.C.P. Lond., Westminster Hospital.
Langford, Frederick Charles, L.R.C.P. Lond., Charing-cross Hospital.
Larbalestier, William Robert, L.R.C.P. Lond., Charing-cross Hospital.
Lawrence, Henry Gwynne, L.R.C.P. Lond., St. Mary's Hospital.
Lewis, George William, L.R.C.P. Lond., University College Hospital.
Lowsley, Montagu Marmion, L.R.C.P. Lond., Charing-cross Hospital.
Lulham, Edwin Percy Habberton, L.R.C.P. Lond., Guy's Hospital.
McDougal, Ernest Duncan, L.R.C.P. Lond., St. Bartholomew's Hospital.
Maclennan, Duncan Neil, L.R.C.P. Lond., Kingston (Canada), London, and University College Hospitals.
Manning, Richard Beattie, L.R.C.P. Lond., St. Mary's Hospital.
Marriott, Cecil Edward, L.R.C.P. Lond., Cambridge University and University College Hospital.
Maskell, John William, L.R.C.P. Lond., University College, and Royal Infirmary, Liverpool, and St. Mary's Hospital.
Mason, Gerald Bovell, L.R.C.P. Lond., London Hospital.
Mathison, Arthur John, L.R.C.P. Lond., Guy's Hospital.
Matthews, Samuel Ryder Russell, L.R.C.P. Lond., St. Mary's Hospital.
Maxwell, John Presten, L.R.C.P. Lond., St. Bartholomew's Hospital.
May, Henry James, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Maynard, Edwin, L.R.C.P. Lond., London Hospital.
Miles, Usher William Newton, L.R.C.P. Lond., King's College Hospital.
Milsome, Harry Blunt, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Moffatt, Alfred Arthur Paget, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Montgomery, Edwin Cecil, L.R.C.P. Lond., Charing Cross Hospital.
Moon, Robert Oswald, L.R.C.P. Lond., Guy's Hospital.
Mornement, Robert Harry, L.R.C.P. Lond., Middlesex Hospital.
Nicholson, Tom Marshall, L.R.C.P. Lond., Guy's Hospital.
Old, Joseph Edgar Sidney, L.R.C.P. Lond., London Hospital.
Padwick, John Cayley, L.R.C.P. Lond., St. Bartholomew's Hospital.
Parfitt, John Brodribb, L.R.C.P. Lond., Guy's Hospital.
Parker, Robert Derwent, L.R.C.P. Lond., Cambridge University and St. Bartholomew's Hospital.
Partridge, Lionel Strowd, L.R.C P. Lond., Oxford University, Royal Infirmary, Edinburgh, and Middlesex Hospital.
Paterson, William Henry John, L.R.C.P. Lond., St. Thomas's Hospital.
Phillips, John Robert Parry, L.R.C.P. Lond., St. Thomas's Hospital.
Pigg, Thomas Strangeways, L.R.C.P. Lond., St. Bartholomew's Hospital.
Pike, Norman Howard, L.R.C.P. Lond., Guy's Hospital.
Poole, Thomas Brice, L.R.C.P. Lond., Durham University and Guy's Hospital.
Pope, William Henry, L.R.C.P. Lond., St. Bartholomew's Hospital.
Potter, Bernard Elwell, L.R.C.P. Lond., Charing-cross Hospital.
Querney, Thomas Mather, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Reed, John Charles Groscort, L.R.C.P. Lond., Guy's Hospital.
Riddett, Albert John, L.R.C.P. Lond., Middlesex Hospital.
Rothwell, Thomas Andrew, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Rowland, Frederick Samuel, L.R.C.P. Lond., University College and Royal Infirmary, Liverpool.
Rowland, Frederick William, L.R.C.P. Lond., Guy's Hospital.
Sanders, Adolph, L R.C.P. Lond., Rush Medical College, Chicago, U.S.A., and St. Mary's Hospital.
Schaub, Justus Martin, L.R.C.P. Lond., King's College Hospital.
Skey, Arthur Richard Harry, L.R.C.P. Lond., St. Bartholomew's Hospital.
Smith, Arthur Grosart Lehman, L.R.C.P. Lond., Middlesex Hospital.
Smith, James, L.R.C.P. Lond., Cambridge University and St. Thomas's Hospital.
Spon, Harry James, L.R.C.P. Lond., Guy's Hospital.
Stammers, George Elliot Frank, L.R.C.P. Lond., University College and Royal Infirmary, Bristol.
Stares, Charles Lindsay Baker, L.R.C.P. Lond., St. Thomas's Hospital.

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Stevenson, Thomas Henry Craig, L.R.C.P. Lond., University College Hospital.
Stockdale, Ernest Malcolm, L.R.C.P. Lond., University College and Royal Infirmary, Liverpool.
Strange, Robert Gordon, L.R C.P. Lond., St. Thomas's Hospital.
Takayasu, Michishige, L.R C.P. Lond., St. Thomas's Hospital.
Tebbs, Lionel Wirtue, L R C.P. Lond., St. Thomas's Hospital.
Thomas, James, L.R.C.P. Lond., St. Bartholomew's Hospital.
Thomas, Thomas, L.R.C.P. Lond., Middlesex Hospital.
Thurnell, Herbert Leslie, L.R.C.P. Lond., Cambridge University and St. Thomas's Hospital.
Tidcombe, Francis Sitwell, L.R.C.P. Lond., St. George's Hospital.
Tod, Hunter Finlay, L.R.C.P. Lond., Cambridge University and London Hospital.
Verdon, Egbert Sumner, L.R.C.P. Lond., Cambridge University and St. Thomas's Hospital.
Waldron, Francis Thomas, L.R.C.P. Lond., London Hospital.
Watkins, Bernard Vincent, L.R.C.P. Lond., Owens College and Royal Infirmary, Manchester.
Watson, Charles Everard Samuel, L.R.C.P. Lond., Guy's Hospital.
Watson, William Douglas, L.R.C.P. Lond , London Hospital.
Wheeler, Malcolm, L.R.C.P. Lond., Edinburgh University and St. Thomas's Hospital.
White, Henry, L.R.C.P. Lond., London Hospital.
Wicks, Spencer, L.R.C.P. Lond., Cambridge University and London Hospital.
Wilkins, Walter, L.R.C.P. Lond., Charing-cross Hospital.
Williams, John Sydney, L.R.C.P. Lond., London Hospital.
Williamson, Oliver Key, L.R.C.P. Lond., Cambridge University and University College Hospital.
Wilmer, Charles Henry, L.R.C.P. Lond., St. Bartholomew's Hospital.
Woolley, Thomas Fisher, L.R.C.P. Lond., Mason College, Queen's and General Hospitals, Birmingham.
Wright, Alfred Bosworth, L.R.C.P. Lond., London Hospital.
Wykes, William Henry, L.R.C.P. Lond., Middlesex Hospital.

The following gentlemen have passed the necessary examinations, and, having previously received the approval of the Royal College of Physicians of London, have been admitted Diplomates in Public Health of the Royal Colleges of Physicians and Surgeons, and are now entitled to register:—

Felix Paul Bartlett, M.R.C.S. Eng. and L.R.C.P. Lond., St. George's Hospital; George Arthur Batchelor, M.D., C.M. Aberd. and M.R.C.S. Eng., London and University College Hospitals; Charles Shaw Bond, L.R.C.P. Lond. and M.R.C.S. Eng., Cambridge University and Guy's Hospital; Robert Welsh Branthwaite, L.R.C.P. Lond. and M.R.C.S. Eng., Charing-cross Hospital; Albert Ernest Cope, M.D. Durham and M.B. Lond., Durham University and King's College Hospital; William John Charles Keats, L.R.C.P. Lond. and M.R.C.S. Eng., St. Bartholomew's and King's College Hospitals; Charles Pye Oliver, M.D. Lond., M.R.C.S. Eng., L.R.C.P. Lond., and L.S.A. Lond., Charing-cross and University College Hospitals; George Henry Patterson, L.R.C.P. Lond. and M.R.C.S. Eng., St. Bartholomew's Hospital; Frank Arthur Speat, M.R.C.S. Eng. and L.S.A. Lond., St. Bartholomew's Hospital; and James Arthur Thompson, L.R.C.P. and S. Irel., London Hospital.

UNIVERSITY OF LONDON.—The following candidates passed the Preliminary Scientific (M.B.) Examination, January, 1896:—

CHEMISTRY AND EXPERIMENTAL PHYSICS.

*Addison, Oswald Lacy, University College.
Banham, Sidney Marshall, Kingswood School and University Tutorial College.
Barnard, Anne Thompson, University Tutorial College and private tuition.
Birks, Francis Joseph, Wesley College, Sheffield.
*Bourke, Isidore MacWilliam, University Tutorial College and St. George's Hospital.
*Brown, Allen Bathurst, University Tutorial College and St. Bartholomew's Hospital.
*Burgess, Amy Jane, London School of Medicine for Women and University Tutorial College.
Carpmael, Norman, Dulwich and University Colleges.
Clarke, Geoffrey, Owens College.
*Cunningham, Herbert H. B., St. Mary's Hospital and Birkbeck Institute.
Damian, Oswald Joseph Stanley, St. George's Hospital, private study, and Alwyne Institute.
*Forsyth, John Andrew Cairns, Yorkshire College.
*Fraser, Sarah Louise, Bedford College, London.
*French, John Gay, Alwyne Institute.
Gibson, Frederick Goulburn, Guy's Hospital.
Grogono, Raby Montague, Merchant Taylors' School and University Tutorial College.
*Hammond, John Abbot Bolding, Guy's Hospital.
*Harvey, Percival George, St. Bartholomew's Hospital.
*Hayden, Arthur Falconer, St. Mary's Hospital.
James, Reginald Valpy, Clifton Laboratory and private study.
*Jones, Bertrand Seymour, University Tutorial College.
Kennard, Alfred Dudley Eskell, Guy's Hospital and Carlyon College.
Kirkness, William Ronald, King's College and Alwyne Institute.
Lawson, Frederick James, University and University Tutorial Colleges.
*McEnery, William Augustine, University College and Middlesex Hospital.
*Marshall, Arthur Thomson, King's College.
*Marval, Alice Marietta, University and University Tutorial Colleges and private tuition.
Matthews, Thomas Arnold, Guy's Hospital and Carlyon College.
Mayes, Frederick James Alexander, University Tutorial College and private study.
Mills, Henry, St. Bartholomew's Hospital.
*Pearce, Thomas Massey, St. Bartholomew's Hospital.
*Pickin, Frederic Harold, University College, Bristol.
Reynolds, Percy, B.A., private study and University Tutorial College.
*Rooke, William Stanley, University and University Tutorial Colleges.
Savatard, Louis Charles Arthur, Guy's Hospital.
Shaw, Charles Cecil Connock, St. Mary's Hospital and Birkbeck Institute.
*Smith, Douglas Wilberforce, Edinburgh University.
Smith, Frederick Morton Vincent, Guy's Hospital.
*Soltau, Alfred Bertram, London Hospital.
*Stannus, Hugh Stannus, St. Thomas's Hospital and private study.
Thomas, William Jones, Burlington House, Cambridge, and private study.
*Trubshaw, Kenneth Vincent, Guy's Hospital.
Tucker, Edith Eleanor, University Tutorial College.
*Van Cuijlenburg, Winifred F., University Tutorial College.
*Wethered, Ernest, St. Bartholomew's Hospital.

BIOLOGY.

*Amsler, Albert Maurice, St. Paul's School.
*Armitage, John James, Science School, Cheltenham.
Barnes, Ernest Charles Page, Carlyon College.
*Beattie, Frederick Alexander, Guy's Hospital and University Tutorial College.
Bilke, Lily Alice, Carlyon College.
*Birch, Anthony, St. Mary's Hospital.
*Bonallo, William, Rutherford College and private study.
Boyle, Henry Edmund Gaskin, St. Bartholomew's Hospital.
*Butcher, William James, Owens College.
*Caddy, Adrian, St. Paul's School.
*Calcott, James Douglas C., University College, Bristol.
Châtelain, Victor Albert, University Tutorial College.
Churchill, George Brooke Forbes, University Tutorial College.
*Churchill, John Aylward, St. George's Hospital.
Cleaver, Anne Fenton, University Tutorial College.
*Cope, Gilbert Edgar, Westminster Hospital and Carlyon College.
*De Pass, Jeannette Rachel, King's College.
Evans, Daniel Cyril, University College, Cardiff.
*Evans, George, Guy's Hospital and University Tutorial College.
*Forsyth, David, Guy's Hospital and University Tutorial College.
*Goodall, Joseph Strickland, City of London College and Middlesex Hospital.
*Hatrick, Charles Dainty, University College.
Hopkins, Lionel Gordon, University College, Aberystwith.
*Hunt, Sydney, private study and University Tutorial College.
*Izard, Alfred Francis, Cranleigh School and University Tutorial College.
*Kiddle, Horace Harvard, St. Thomas's Hospital, private study, and University Tutorial College.
*Lacy, Hugh Kirbell, Guy's Hospital and Alwyne Institute.
*Lindsey, Edward Vaughan, St. Bartholomew's Hospital.
*Little, John Wishart, University Tutorial College and St. Thomas's Hospital.
Mackay, Ernest Charles, St. Bartholomew's Hospital and private study.
Melhuish, Herbert Michael Henry, St. Bartholomew's Hospital.
*Minkley, Henry Richmond, St. Mary's Hospital and Mason College.
*Morgan, Daniel Leigh, Guy's Hospital and Alwyne Institute.
Mosscrop, Gilbert Phillips, University Tutorial College.
Pank, Harold William, St. Bartholomew's Hospital.
*Pearson, Arthur, Guy's Hospital.
Pilkington, Arthur Frederick, St. Mary's Hospital.
Roberts, Stuart Kenyon, St. Bartholomew's Hospital and private tuition.
Robinson, Ellis Wynne, University College, Cardiff, and private study.
Sibree, Alice Deborah, Oxford University Museum.
Smith, Charles William, Wesley and Firth Colleges and private study.
*Stormont, James Henry, Mason College.
Stuart, Emily Gertrude, Bedford College, Oxford University Lectures, and private tuition.
*Tattersall, Harold, Guy's Hospital.
Taylor, Clifford John, University College, Bristol.
*Taylor, George Orissa, London Hospital.
*Taylor, William Benjamin B., Merchant Taylors' School and London Hospital.
*Thomas, Arthur Hitchings, University College, Cardiff.
*Utley, John Ernest, Owens College.
*Wall, Vivian Francis, University Tutorial College and St. Mary's Hospital.
*Ward, Herbert Septimus, University College, Cardiff, and private study.
Watson, John Harry, University College, Liverpool.
*Wetherell, Frank Cordeux, Guy's Hospital and Alwyne Institute.
Wiggins, Clare Aveling, St. Mary's Hospital and Birkbeck Institute.
*Williams, Alfred Carleton, King's College.
*Woodwark, Arthur Stanley, St. Bartholomew's Hospital and private study.
Worth, Bertram Stanley, London Hospital and University Tutorial College.
*Niall, Eugene Michael, St. Bartholomew's Hospital.

* These candidates have now completed the examination.

LITERARY INTELLIGENCE.—Mr. C. Ricker of St. Petersburg has just brought out the first number of the Annales de Chirurgie Russe, edited by Professors Sklifossowsky and Weliaminoff of that city. Six parts will be issued yearly, each having from 128 to 160 octavo pages. The Annales are published in the Russian language, and will contain original articles on Surgery, Reviews of Surgical Works, Reports and Proceedings of Surgical Societies in Russia and Eastern Europe, Bibliography, &c. The subscription for countries included in the postal union is 30 francs.

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SUPERANNUATION OF A MEDICAL OFFICER.—At the last meeting of the Bristol board of guardians it was decided, subject to the sanction of the Local Government Board, to grant a superannuation allowance of £70 per annum to Mr. R. Fendick, medical officer of No. 1 district and St. Peter's Hospital, who has resigned the appointment owing to failing health and old age. The chairman stated that Mr. Fendick had given thirty-five and a half years' services, that no official complaint had ever been laid against him, and that he had been a most painstaking officer.

WITH a view to letting the press know exactly what vegetarianism can accomplish in the gastronomic art Mr. A. F. Hills, the President of the London Vegetarian Society, entertained a number of ladies and gentlemen of the fourth estate at the Ideal Café, Tottenham-court-road, on Feb. 14th last. Of course, the various dishes were composed entirely of vegetables and fruit, but such things as macaroni cutlet and dishes prepared *à la Française*, *à la Normandy*, &c., bore some resemblance to the food eaten by the ordinary "corpse" eater, to use the not very elegant phrase of one of the speakers. We see no reason to change our opinion that a mixed diet is preferable.

INFIRMARY MEDICAL SUPERINTENDENTS' SOCIETY. The monthly meeting of this society was held on Feb. 13th at Greenwich Infirmary. The chair was taken by Mr. J. R. Lunn, F.R.C.S.Edin., &c. Mr. Walter Burney showed cases of Large Varicocele, Amputation of the Upper Arm after Railway Accident; Friedreich's Disease in two Brothers; Locomotor Ataxy with Optic Atrophy; Albuminuric Retinitis; Hodgkin's Disease; Enteric Fever with Thrombosis of both Femoral Veins; Leucoderma; Large Aneurysm of Popliteal Artery cured by Ligation of the Femoral Artery; Cerebral Tumour; Pseudo-hypertrophic Paralysis; and Lepra Anæsthetica. The provisions of the Poor Law Officers Superannuation Bill were discussed, and it was decided to suggest several amendments to the proposed measure.

SOUTH-WEST LONDON MEDICAL SOCIETY.—A meeting of this society was held in Wandsworth on Feb. 12th, the President, Dr. Gilbert Richardson, being in the chair.—Mr. Adams Frost gave a lantern demonstration of some Ophthalmic Appearances, with special reference to the various forms of Optic Neuritis.—A hearty vote of thanks was moved by the President and seconded by Mr. Howell to Mr. Frost for his interesting address, and a similar vote to Mr. Cuthbert Wyman for his assistance with the lantern, both being carried with acclamation.—The following notice has been sent to every member of the society:—"The council desire to draw the attention of those members whom it may concern to Section 1, Article 2 of the by-laws, and to warn members that there are certain companies carrying on operations in the district which are in direct infringement of this by-law. The council therefore consider that any connexion on the part of a member with these companies 'lowers the dignity of the profession' within the meaning of the by-laws."

THE ÆSCULAPIUS LODGE OF FREEMASONS.—An ordinary meeting of this Lodge, No. 2410, was held at the Café Royal, Regent-street, on the 12th inst. Dr. G. Crawford Thomson, the Master, presided. There was a good attendance of members and many medical visitors from the colonies. Mr. M. P. Mayo Collier, M.S., M.B.Lond., F.R.C.S.Eng., was elected a joining member. Mr. W. Harrison, M.A.Cantab., and Mr. R. T. Hacker Bodilly, M.R.C.S.Eng., L.R.C.P.Lond., were admitted to the third degree. Mr. W. Stacy Colman, M.D., M.R.C.P.Lond., and Mr. C. Henson Broadhurst, M.R.C.S.Eng., L.R.C.P.Lond., were admitted into Freemasonry. Mr. G. Rowell, F.R.C.S.Eng., L.R.C.P.Lond., was proposed as a joining member. After the business of the lodge was concluded the members dined together and spent a very pleasant evening, which was enhanced by the musical talents of some of the members. The event of the evening was the presentation by the Master of an elegant spirit-stand, a spirit-kettle, and a silver salver to Thomas Dutton, M.D., the hon. sec. of the lodge, which had been subscribed for by the members of the lodge and given as a token of thanks and fraternal esteem for the manner in which the clerical work of the lodge had been carried out during the five years in which Dr. Dutton had held the office of secretary. Dr. Dutton made a suitable reply to Dr. Thomson's excellent speech, and said the gift would always remind him of the truly fraternal feeling which had existed between himself and the members of the Æsculapius Lodge.

DR. LEONARD REMFRY has resigned the office of obstetric physician to out-patients at the Great Northern Central Hospital, Holloway-road, N.

DR. CLEMENT GODSON has been elected an Honorary President of the International Congress of Gynæcology and Obstetrics to be held in Geneva in September.

DR. M. ARMAND RUFFER has resigned the post of Director of the British Institute of Preventive Medicine and has been appointed Professor of Bacteriology at the Medical School of Cairo, vice Dr. Kaufmann, resigned.

ROYAL METEOROLOGICAL SOCIETY.—The monthly meeting of this society was held on Wednesday evening, the 19th, inst., at the Institution of Civil Engineers, Westminster, Mr. Edward Mawley, F.R.H.S., President, in the chair. The report on the Phenological Observations for 1895 was presented by Mr. Mawley. Mr. R. H. Scott, F.R.S., read a paper on the Recent Unusually High Barometer Readings in the British Isles, in which he stated that the daily weather chart for 6 P.M. on Jan. 8th was the first in these islands that ever showed thirty-one inches.

DEATH FROM A "LIQUID WEED DESTROYER."—Last week a lady at Tockington, Gloucestershire, whilst making a tipsy cake added to it some liquid weed destroyer contained in a jar, believing it to be home-made wine. She drank some of the liquid and was taken ill about three hours later, and although medical assistance was obtained died a few hours afterwards. At the inquest the coroner (Mr. E. M. Grace) read a telegram from the makers stating that arsenic was contained in the liquid. A verdict of "Death from misadventure through accidentally drinking a weed destroyer containing arsenic" was returned.

MEDICAL MAGISTRATES.—Dr. H. J. Strong of Worthing recently made the declaration and took his seat on the Commission of the Peace for the county of Sussex.—The Lord Chancellor has added to the Commission of the Peace for the county of Cambridgeshire the name of Dr. Donald MacAlister, F.R.C.P., Linacre Lecturer, Fellow and Tutor of St. John's College, and physician to Addenbrooke's Hospital, Cambridge.—Mr. Dennis Barry O'Flynn, M.A., M.D., Glanmire, county Cork, has been appointed a magistrate of the county on the recommendation of Lord Bandon, Lord-Lieutenant of the county.

CARDIFF MEDICAL SOCIETY.—The usual monthly meeting was held on Feb. 7th, the President, Dr. Edgar Jones, being in the chair. Dr. Tatham Thompson showed a girl in whom Mules' Operation for Ptosis was performed. The result was excellent.—Dr. Rhys Griffiths showed a man with Syphilitic Disease of the Elbow Joint. Dr. Rhys Griffiths exhibited the following specimens—(1) a catheter which had been removed from the male bladder by perineal section; (2) a Zwancke's pessary which had lain in the vagina for two and a half years and had ulcerated into the bladder; (3) a fœtus in which the abdominal wall was deficient; and (4) a brain from a case in which the lateral ventricles had been tapped.—Mr. C. A. Griffiths read a paper on the Surgery of Empyema. He advocated free incision of the pleural cavity combined with the resection of ribs and showed a tube devised by him in which there was an arrangement for retaining it in the chest cavity.—A good discussion in which many members took part followed.

A MEETING of the Anatomical Society of Great Britain and Ireland was held at St. Mary's Hospital on Feb. 10th. Dr. Rolleston and Dr. Wardrop Griffiths showed specimens of Hearts having a Fibrous Band across the Left Auricle. Dr. Griffiths suggested that this condition was brought about by the remains of the left sinus venosus caused by the portal veins in an early stage of development. Dr. Rolleston regarded the condition as pathological. Mr. E. M. Corner gave an account of three papers: (1) On Some Processes at the Base of the Skull, in which he distinguished between the paramastoid and paroccipital processes; (2) On Some Points in the Anatomy of the Elbow-joint, in which he suggested homologies for certain structures in the elbow with others in the knee; (3) a Comparison of the Temporal Fossa with the Cephalic, Gnathic, and Vertical Indices. Dr. J. H. Sequeira showed a specimen of Ectopia Vesicæ, with Patent Vitelline Duct in an Infant. Dr. Barclay Smith read a paper on the Astragalo-calcaneo-navicular Joint. Mr. J. H. Targett showed specimens of Hip-bones from Cases of Congenital Dislocation.

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THE DIFFUSION OF SMALL-POX.—There were no deaths registered from small-pox last week in London or any of the other thirty-two large towns. In London the returns of the Metropolitan Asylums Board show that on Saturday last the number of small-pox patients remaining under treatment on the ships was 54, as compared with 70, 74, and 64 on the three preceding Saturdays. But the chief interest in regard to small-pox prevalence still centres round Gloucester and Cardiff. The ringleaders in connexion with the burning of the Stroud small-pox hospital at Oakridge have been sentenced by Mr. Justice Grantham, at Cheltenham, to twelve months' hard labour, and few people will be found to say that the sentences were too heavy. The reason for holding the Assizes at Cheltenham, rather than at Gloucester as usual, was stated by Judge Grantham to be the risk at the latter place of a small-pox epidemic; and he spoke with commendable plainness on the inaction of the guardians in the city in the matter of the enforcement of the vaccination laws. His remarks have led Mr. Darling, M.P., to give notice of a question in the House of Commons next Tuesday, having for its object the ascertainment whether the law of vaccination cannot be made something more than the dead letter which it has become in so many places. Meanwhile in Gloucester the health authorities are straining every nerve to combat the malady in its present proportions. In Cardiff there had been to the end of last week 27 cases of small-pox, 18 of them having come from the workhouse, including two fresh cases last week. In the town the medical officer of health has taken pains to secure the revaccination of all inmates of the infected houses as far as possible. In the workhouse the task of obtaining the consent of the inmates to be revaccinated has been one of extreme difficulty, owing to the rooted objection of some of the paupers to undergo the operation. According to the medical officer of the "house," some form of bribery has had to be used in certain cases, and the admission caused not a little amusement at the board meeting at which it was made. On Tuesday of last week the vaccination committee at Cardiff decided, by 4 votes to 3, to appoint six assistant vaccination officers for the purpose of conducting a house-to-house inquiry throughout the town to secure the vaccination of all unvaccinated children and others. But on Saturday the guardians, having before them this proposal of the committee, held different views, and by 27 votes to 7 decided, on the score of expense, that it was needless to appoint the officers in question. On Saturday last a railway hand at Canton, Cardiff, fell ill with small-pox and was conveyed to hospital. At Aberdare a further case has been reported in the person of an inmate of a lodging-house. At Dowlais a person suffering from small-pox has been discovered to have attended a wedding with manifestations of the disease well out on him. At Brynmawr the person who imported small-pox into the town, and who had come to a lodging-house from Cardiff, *viâ* Newport and Abergavenny, escaped last week from hospital and was only found again after long search, his place of hiding being a lodging-house in the place. In the Forest of Dean a case of small-pox has been reported at Westbury, and the house where the patient lives has been placed in quarantine by the urban district council. The Bridgend council have given a contract to Messrs. Humphreys for an iron building at a cost of £120, to be erected and ready for use in five days in view of possible emergencies. In the Wigan sanatorium there were at the beginning of last week 13 cases of small-pox, in addition to 6 of typhus fever, and preventive measures are being adopted for curtailing the diseases. The isolation of both maladies in one building is a questionable proceeding. At Oldham the attacks of small-pox in the fortnight ended Feb. 8th were 2 only, as compared with 6 in the preceding fortnight. At Camborne the medical officer of health notified a case of small-pox at the end of last week occurring in one of the miners who had just returned from Johannesburg.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Vaccination Commission.

A NUMBER of petitions have been presented to the two Houses of Parliament praying for an early presentation of the report of the Royal Commission on Vaccination.

Holloway Sanatorium.

The House of Commons at its meeting on Friday, the 14th inst., took steps for procuring the public issue of a copy of the report of Mr. C. S. Bagot and Mr. F. Needham to the Lunacy Commissioners with reference to the inquiry made by these two gentlemen into certain occurrences at the Holloway Sanatorium. The member on whose motion the House took action was Mr. John Ellis.

New Bills.

During the first week of the session a great many bills were introduced by private members, among them the following of special interest to the medical profession—viz.: Bill to Provide for the Registration of Midwives, introduced by Mr. Skewes-Cox and Mr. Bonsor; Bill for the National Registration of Plumbers; Bill to make Better Provision for the Regulation and Control of Cemeteries provided under the Public Health (Interments) Act, 1879; Bill to Amend the Law relating to the Appointment of Members of Dispensary Committees in Ireland; Bill to Regulate and Control Street Noises; Bill to Amend and Extend the Law Affecting the Introduction of Steam and Moisture in Factories, Sheds, and Workshops, and for Regulating the Labour of Children and Young Persons Working in these Places; Bill for Better Securing the Purity of Beer; Bill to Amend the Burial Laws; and Bill to Amend the Law Relating to Coroner's Inquests in the Case of Fatal Accidents on Railways.

Notification of Diseases.

Sir John Brunner has addressed to the President of the Local Government Board the following interrogatories: How many local authorities have adopted the Notification of Diseases Act? How many of these authorities are there who are capable of adopting the Act? and, Whether the right hon. gentleman has considered the advisability of making the Act compulsory instead of permissive? The reply is expected in the course of next week.

Plumbers' Registration Bill.

Among the private bills shortly to be introduced in the House of Commons during this session is the Plumbers' Registration Bill, which is backed by Mr. Lees Knowles, Earl Compton, Mr. Dixon, Dr. Farquharson, and Mr. Sexton, and has the support of some of the principal municipalities of the United Kingdom.

HOUSE OF COMMONS.

THURSDAY, FEB. 13TH.

The Increase of Rabies.

Mr. Wolff asked the Home Secretary whether, in consideration of the large increase of rabies in the United Kingdom, he would make such regulations that all dogs be registered and have a number attached to their collar corresponding with the number on the register, so that their owners could be ascertained, and the police be instructed to take up and destroy any dogs found at large without such number.—Mr. Walter Long, President of the Board of Agriculture, replied to the question, saying that legislation would be required in order to give effect to the suggestion of his hon. friend, and he was informed that the experience of other countries had shown that the measure, while causing considerable inconvenience and expense, was not likely in itself to bring about the extinction of rabies. There could, however, be no doubt of the importance of the adoption of efficient measures for the seizure of stray dogs, and the prevention of the spread of the disease would be greatly assisted by the efficient performance of their duties in this respect by local authorities and the police.—Mr. Donkin asked whether the Government would take into serious consideration the advisability of the efficient compulsory muzzling of all dogs in the United Kingdom for twelve months, as had been done in Belgium with success, and also the efficient inspection of all dogs imported into this country.—Mr. Long said that the suggestion of his hon. friend would be a right one to adopt if it were found to be practicable and if there was a strong feeling among dog-owners and the public in favour of a vigorous and well-sustained attempt to reduce the amount of rabies. So far as he could judge no such feeling existed. He hoped that similar results to those obtained in Lancashire and Yorkshire would be secured in London and the home counties.

Provision for the Aged Poor.

Mr. Balfour, in reply to a question, intimated that it is the intention of the Government to appoint a small committee of experts to deal with the subject of making provision for the aged poor, as recommended by the Commission last year. He assured the House that it will be appointed without any undue delay.

FRIDAY, FEB. 14TH.

Proposed International Commission on Lunacy.

Mr. Kenny asked the Home Secretary whether, in view of the magnitude of the annual increase in the number of lunatics, as shown in the Parliamentary paper issued during the recess, he would take measures to promote an International Commission of Inquiry into the subject of the general increase of insanity, with the object of devising means to arrest its progress.—Sir Matthew White Ridley replied that he had no evidence in his possession to lead him to believe that any practical result would follow the appointment of such a commission, but he was prepared to receive representations on the subject from the hon. member.

MONDAY, FEB. 17TH.

Dangerous Lamps.

Mr. Jesse Collings, answering a question on this subject put by Mr. Boulnois, said that the Home Secretary has been considering the increase in the number of deaths arising from the use of dangerous lamps, and hopes to be able to secure the reappointment of the Select Committee which in 1894 began an inquiry into the subject.

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TUESDAY, FEB. 18TH.

The Vaccination Commission.

An inquiry with regard to the position of the work of this Commission elicited from Mr. Chaplin, President of the Local Government Board, the reply that the Commissioners are actively engaged in the consideration of their report and hope to be able to present it before long.

The Importation of Adulterated Food Products.

During the debate on the Address at this sitting of the House Mr. Kearley introduced the subject of the importation of adulterated food products and its pernicious effects on this country and its trade. He claimed that the goods should be inspected at the port of entry, and if found to be adulterated that they should be at once confiscated. Several members spoke in support of this claim.—Mr. Walter Long, President of the Board of Agriculture, replied on behalf of the Government. He did not deny that there is considerable room for amendment and reform in the adulteration laws. He hesitated, however, to express an opinion as to the direction reform should take, because a committee would be moved for almost immediately to continue the inquiry undertaken by the late Parliament, and he looked to the labours of that committee with some confidence to arrive at conclusions which would enable the subject to be effectively treated. If he made any suggestion it would be that there should be a consolidation in one Act of all the adulteration laws, and that their administration should be in the hands, not of three departments, but of one department. The Government had not been idle in the matter. They had discovered through their analysts a considerable amount of adulteration in imported butter, and, so far from allowing butter so adulterated to be sent broadcast over the country, they had informed the consignees that their butter was adulterated and that if they attempted to sell it they would find themselves in difficulties; and the Government had taken the further precaution, in cases in which they had reason to suspect the good intentions of the consignees, of informing the local authorities where those consignees lived that the butter going to them was adulterated, in order that the public might be protected from fraud. As to seizing fraudulent goods at the port of entry his legal advisers informed him that such seizures could not be made; that until an adulterated article was sold no offence was committed. He was willing to admit that seizure at the port might be a more desirable remedy, but the matter would require much consideration, and no doubt it would receive it at the hands of the committee.—Sir Walter Foster also took part in the discussion. He assured the House that the moment they began to look into these things at the port of entry, fraudulent importers were checked by a salutary fear of exposure, and if this supervision could be carried further they might be able in time to prevent adulterated articles from reaching the retailers. The three articles in this country which principally came from abroad were butter, lard, and cheese. Twenty-five per cent. of the butter sold was said to be adulterated, and under the existing administration of the law only 10 per cent. was detected. If confiscation at the port of entry were rigorously enforced a stop would be put to the importation of this adulterated butter. Adulterated lard lowered the price of the lard made by the home producer. Much of the cheese imported had no dairy product in it, being made from skimmed milk, animal fats, and other substances. It contained nothing nutritious and often caused trouble to those who ate it. In the interests of English agriculture these nefarious practices should cease by the action of the Custom House authorities. Lard, cheese, and butter were imported to the value of £22,000,000 a year. The public were practically unable to protect themselves against adulteration and had a right to look not only to the local authorities but to Imperial authorities to protect them from fraud on their pockets as well as from injury to their health by the foisting upon them of articles which were in no sense what they professed to be.

WEDNESDAY, FEB. 19TH.

The Early Closing Question.

At this sitting of the House Sir John Lubbock succeeded in getting a second reading for his Shops (Early Closing) Bill. Among those who supported the measure was Dr. Farquharson, who did so mainly on the ground that it will conduce to the physical well-being of shop assistants.

BOOKS, ETC., RECEIVED.

ALCAN, FÉLIX, Paris.

Association Française de Chirurgie. Neuvième Congrés de Chirurgie. Paris, 1895. pp. 1007.

BAILLIÉRE, TINDALL AND COX, King William-street, Strand, London.

A Manual of Pharmacology and Therapeutics. By Wm. Murrell, M.D., F.R.C.P. 1896. pp. 657. Price 10*s.* 6*d.*

BALE, JOHN AND SONS, Great Titchfield-street, Oxford-street, London.

Our Growing Children. By Gerard Smith, M.R.C.S. 1896. pp. 104. Price 2*s.* 6*d.*

BLACK, ADAM AND CHARLES, London.

Text-book of General Pathology and Pathological Anatomy. By Richard Thoma, translated by A. Bruce, M.A., M.D., F.R.C.P., F.R.C.S.E. Vol. I. Illustrated. 1896. pp. 624. Price 30*s.*

CHAPMAN AND HALL, London.

The Present Evolution of Man. By G. Archdall Reid. 1896. Price 7*s.* 6*d.*

CHURCHILL, J. & A., Great Marlborough-street, London.

Clinical Lectures on Mental Diseases. By T. S. Clouston, M.D. Edin., F.R.C.P.E. Fourth edition. 1896. pp. 747. Price 14*s.*

Uric Acid as a Factor in the Causation of Disease. By Alex. Haig, M.A., M.D. Oxon., F.R.C.P. Third edition. Illustrated. 1896. Price 12*s.* 6*d.*

A Handbook on Leprosy. By S. P. Impey, M.D., M.C. 1896. Price 12*s.*

HIRSCHWALD, AUGUST, Berlin.

Die Adenomyome und Cystadenome der Uterus- und Tubenwandung. Von Fred. v. Recklinghausen. Mit 12 Tafeln. 1896.

KEGAN PAUL, TRENCH, AND CO., Charing-cross road, London.

The Functional Examination of the Eye. By J. H. Claiborne, Jun., M.D. Illustrated. 1895. Price 5*s.*

KELLY AND CO., High Holborn, London, W.C.

Kelly's Handbook to the Titled, Landed, and Official Classes for 1896. Twenty-second Annual Edition. Price 16*s.*

LAMOUREUX AND CO., Rio de Janeiro.

Annual Reports of the Strangers' Hospital of Rio de Janeiro for the years 1892, 1893, 1894, and 1895, with the By-laws and Regulations of the Hospital.

MURRAY, JOHN, Albemarle-street, London.

With an Ambulance during the Franco-German War, 1870-71. By C. E. Ryan, F.R.C.S. Irel., M.R.C.P. With Portrait and Maps. 1896. pp. 364. Price 9*s.*

PENTLAND, YOUNG J., Edinburgh.

Manual of Practical Anatomy. Dy D. J. Cunningham. Vol. I. Upper Limb, Lower Limb, Abdomen. Second Edition. Illustrated. 1896. pp. 661.

Aseptic Surgery. By Charles B. Lockwood, F.R.C.S. 1896. Price 4*s.*

SAUNDERS, W. H., Philadelphia.

A Manual of Medical Jurisprudence and Toxicology. By H. C. Chapman, M.D. Second Edition. Illustrated. 1896. pp. 254.

SPOTTISWOODE AND CO., Gracechurch-street, London, E.C.

Minutes of the General Medical Council and of its Committees and Branch Councils for the year 1895, with Twenty-three Appendices. Vol. XXXII. 1896.

The Dentists' Register, 1896.

THACKER, SPINK AND CO., Calcutta, and W. THACKER AND CO., London.

Introductory Exercises in Wider Prose Compositions, with Notes and Translations. By Surgeon-Lieutenant-Colonel G. Ranking, M.D., and M. M. Yu'suf Ja' Fari. 1896.

THE JOHNS HOPKINS PRESS, Baltimore.

The Johns Hopkins Hospital Reports. Vol. V. 1895.

The Journal of Pathology and Bacteriology; edited by G. S. Woodhead, M.D.; Vol. III.; January, 1896 (Young J. Pentland, Edinburgh); price 12*s.* net.—Specielle Pathologie und Therapie; 22. Band, I. Theil; von Dr. H. Nothnagel; Die Erkrankungen der Schilddrüse, Myxödem und Cretinismus; von Prof. Dr. C. A. Ewald (Alfred Hölder, Wien 1896).—Les Ferments Solubles (Diastases-Enzymes); par Émile Bourquelot; (Société d'Editions Scientifiques, Paris, 1896).—Monats schrift fur Gebürtshülfe und Gynäkologie; Prof. Dr. A. Martin und Prof. Dr. M. Sänger; February, 1896 (Williams and Norgate, London).—The Asclepiad; second series; fourth quarter, 1894-5; No. 44; Vol. II. (Longmans, Green and Co., London); price 2*s.* 6*d.*—Guide to Travellers on the Maintenance of Health in Unhealthy Countries; by Henry Cayley, F.R.C.S., F.R.G.S. (Horace Cox, Bream's-buildings, London, E.C.); 1896; price 1*s.*—The New Science Review; January 1896 (Gay and Bird, Chandos-street, Strand, London).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALLFREY, C. H., M.D. Edin., M.R.C.P. Lond., F.R.C.S. Eng., D.P.H. Camb., has been appointed Assistant Physician to the Hastings, St. Leonards, and East Sussex Hospital.

ANGELL, MR., has been reappointed Public Analyst for the Borough of Guildford.

BAINES, E. W. P., M.B., B.S. Durh., has been appointed Registrar at the Hospital for Women, Soho-square, London.

BANKS, L. P., L.K.Q.C.P. Irel., L.F.P.S. Glasg., has been reappointed Honorary Surgeon to the Mansfield and District Hospital.

BEVAN, J. I., M.B., C.M. Edin., has been appointed Medical Officer of Health for the Oystermouth Urban Sanitary District.

BYERS, PROFESSOR, M.D. Irel., has been reappointed Examiner in Midwifery in the Royal University of Ireland.

CHARNLEY, WM., M.D. Camb., M.R.C.S., has been appointed Honorary Ophthalmic and Aural Surgeon to the Wrexham Infirmary.

CHEATLE, ARTHUR H., F.R.C.S., has been appointed Surgeon to the Royal Ear Hospital, Soho.

COLEY, F. C., M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Northern Counties Hospital for Consumption and Diseases of the Chest.

CURTIS, A., M.R.C.S., has been reappointed Medical Officer of Health by the Staines Urban Council.

DAWSON, W. J., M.B. Irel., has been appointed Dispensary Medical Officer for Newtownhamilton.

DOBIE, W. M., M.D. Edin., M.R.C.S., has been appointed Consulting Physician to the Wrexham Infirmary.

FARRAR, REGINALD, M.D. Oxon., M.R.C.S., L.R.C.P. Lond., has been appointed Surgeon to the Stamford, Rutland, and General Infirmary, vice W. Newman, resigned.

GILRUTH, J. D., M.B., C.M. Edin., has been appointed Medical Officer by the Duffus Parish Council.

GRIFFIN, A. E., M.A. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Surgeon to the Middlesex Hospital.

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HARRIS, T., M.D. Lond., F.R.C.P., M.R.C.S., has been appointed Visiting Physician to the Manchester Royal Lunatic Asylum.
HEAVEN, J. C., L.R.C.P. Lond., M.R.C.S., D.P.H., has been reappointed Medical Officer of Health by the Keynsham District Council.
HODGSON, C. E., L.R.C.P., L.R.C.S. Irel., has been appointed Resident Clinical Assistant to the City Asylum, Birmingham, vice G. Hunt.
JONES, ROWLAND F. H., L.R.C.P. Lond., M.R.C.S., D.P.H., has been appointed Medical Officer for the Workhouse of the Bangor and Beaumaris Union, vice E. C. Price, resigned.
KYDD, D. A. F., M.B., C.M. Aberd., has been appointed Medical Officer for a Division of the Burgh of Port Glasgow.
LANCASTER, E. LE CRONIER, M.B., B.Ch. Oxon., has been appointed Honorary Physician to the Swansea and South Wales Institution for the Blind, vice G. Herbert Hopkins, resigned.
MILES, W. ERNEST, F.R.C.S. Eng., has been appointed House Surgeon to St. Mark's Hospital for Diseases of the Rectum.
MILLIGAN, C. J., L.R.C.P. & S. Edin., has been appointed Medical Officer for Ligoniel Dispensary, vice R. H. Newett, deceased.
MOWAT, ANDREW, M.B., C.M. Aberd., has been appointed Medical Officer for Longhope, Orkney.
NEWMAN, WILLIAM, M.D., M.R.C.P. Lond., F.R.C.S. Eng., has been appointed Consulting Surgeon to the Stamford, Rutland, and General Infirmary.
NUTTING, H. S., M.B., C.M. Edin., has been reappointed Honorary Surgeon to the Mansfield and District Hospital.
PENNY, W. R., M.R.C.S., L.R.C.P., has been appointed House Surgeon to Westminster Hospital.
PHILLIPS, GEORGE, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Bury Dispensary Hospital, Lancs.
RICHARDS, A. F. B., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Hospital, Swansea.
RODEN, P. A., M.B., C.M. Aberd., has been reappointed Medical Officer of Health for Droitwich.
SHEPHERD, H. B., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Castleton Sanitary District of the Chapel-en-le-Frith Union.
SMITH, A. T., M.B., C.M. Aberd., has been appointed Medical Officer for the Third Sanitary District of the Bromley Union.
SMITH, LORRAIN J., M.D. Edin., has been reappointed Examiner in Pathology in the Royal University of Ireland.
SPARKE, G. W., M.R.C.S., L.M., has been reappointed Honorary Consulting Surgeon to the Mansfield and District Hospital.
STELL, G., M.D. Edin., C.M., F.R.C.P. Lond., has been appointed Visiting Physician to the Manchester Royal Lunatic Asylum.
STEVENSON, A. K., M.D., C.M. Irel., has been appointed Medical Officer for the Doagh Dispensary District.
TAYLOR, JAS., L.R.C.P. Lond., F.R.C.S., L.F.P.S. Glasg., has been appointed Consulting Surgeon to the Wrexham Infirmary.
VAWDREY, GEO., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer by the Farnborough District Council.
WARD, T. H., M.B., C.M. Edin., has been appointed Medical Officer for the Second Sanitary District of the Totnes Union.
WAYTE, J., M.A., M.B., B.Ch. Oxon., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Surgeon to Croydon General Hospital.
WHITLA, PROFESSOR, M.D. Irel., has been reappointed Examiner in Materia Medica in the Royal University of Ireland.
WILLIAMS, EDWARD CECIL, B.A., M.B., B.C. Cantab., has been appointed Physician-in-charge of Out-patients to the Hospital for Sick Children and Women, Bristol.
WILLIAMS, R., M.B., C.M. Edin., has been reappointed Medical Officer of Health for the Leominster Urban Sanitary District.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ANDERSON'S COLLEGE MEDICAL SCHOOL, Glasgow.—Chair of Midwifery.
BIRKENHEAD UNION.—Assistant Medical Officer for the Workhouse and Schools. Salary £60 for the Workhouse and £20 for the Schools, with rations, attendance, washing, and residence in the Workhouse or outside until accommodation can be provided. Applications to Clerk to the Guardians, Clerk's Offices, 45, Hamilton-square, Birkenhead.
BIRMINGHAM PROVIDENT DISPENSARY (SANDS-COX TRUST), Hockley Branch.—Medical Officer. Minimum salary £250 per annum, with residence and gas.—Applications to the Secretary, 20, Weston-road, Handsworth, Birmingham.
BOLTON INFIRMARY AND DISPENSARY.—Senior and Junior House Surgeons for one year. Salary for the Senior £120, and for the Junior £80 per annum, with apartments, board, and attendance.
CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Salary at the rate of £30 per annum, with board and residence.
GENERAL HOSPITAL, Nottingham.—Assistant House Surgeon for six months. Board, lodging, and washing in the hospital provided. Also Assistant House Physician for six months. Board, lodging, and washing in the hospital provided.
LONDON HOSPITAL, Whitechapel, E.—Two Dental Surgeons.
MANCHESTER ROYAL INFIRMARY (BARNES CONVALESCENT HOSPITAL), Cheadle.—Clinical Assistant for six months. Board and lodging provided.
MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon. Honorarium at the rate of £50 per annum, and board.
METROPOLITAN HOSPITAL, Kingsland-road, N.E.—House Physician, House Surgeon, Assistant House Physician, and Assistant House Surgeon, for six months. Salary of House Physician and House Surgeon at the rate of £40 a year; and the salary of Assistant House Physician and Assistant House Surgeon at the rate of £20 a year.
NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer, unmarried. Salary £120 per annum, increasing £10 yearly to £150, with furnished apartments, board, and lodging.
RIPON DISPENSARY AND COTTAGE HOSPITAL.—Resident House Surgeon and Dispenser, unmarried. Salary £70 per annum, with board and lodging.
ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road, S.E.—Resident Medical Officer for one year. Salary £70 per annum, with board.
SHEFFIELD ROYAL HOSPITAL.—House Surgeon for two years, unmarried. Salary £100 guineas per annum, with board (exclusive of wine and beer) and lodging.
THE GUARDIANS OF THE POOR OF THE WANDSWORTH AND CLAPHAM UNION.—Assistant Medical Officer for the Infirmary of the Union, unmarried. Salary £120 per annum, with apartments, board, and washing. Applications to the Clerk, Union Offices, New Wandsworth.
THE HOSPITAL FOR WOMEN, Soho-square, London.—Assistant House-Physician (non-resident) for three months.
UNIVERSITY COLLEGE, London.—Professor of Pathology.
VICTORIA HOSPITAL, Folkestone.—House Surgeon. Salary £80 a year, rising £10 annually, with board, residence, and washing.
VICTORIA UNIVERSITY, THE YORKSHIRE COLLEGE, Leeds.—Demonstrator of Physiology. Salary £150.
WARRINGTON INFIRMARY AND DISPENSARY.—Junior Resident House-Surgeon, unmarried. Salary £100 per annum, with furnished residence and board.

Births, Marriages, and Deaths.

BIRTHS.

ARNOLD.—On Feb. 14th, at Oxford-road, Manchester, the wife of Francis Sorell Arnold, M.B. Oxon., of a daughter.
CHAPMAN.—On Feb. 12th, at St. John's-street, Hereford, the wife of Paul M. Chapman, M.D. Lond., F.R.C.P. of a son.
CLARKE.—On Feb. 16th, at Gledstanes-road, West Kensington, W., the wife of William Frederick Clarke, M.D., B.S. Lond., of a son.
COOPER.—On Feb. 12th, at Courtfield-road, the wife of G. White Cooper, M.B., of a daughter.
HARRIS.—On Feb. 14th, at Holy Innocents'-road, Hornsey, the wife of R. Bernard Harris, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., of a daughter.
PECK.—On Feb. 18th, at 64, Gower-street, the wife of Awdry Peck, M.A. Oxon., M.R.C.S., L.R.C.P., of a daughter.
RAWLINSON.—On Feb. 16th, at Stuart House, Bognor, the wife of F. Juland Rawlinson, F.R.C.S., of a son.

MARRIAGES.

CROUCH—SMITH.—On Feb. 18th, at St. Thomas's, Portman-square, Charles Percival Crouch, F.R.C.S. Eng., M.B. Lond., of Weston-super-Mare, to Annie Parbury, second daughter of Thomas Smith, F.R.C.S. Eng., of Stratford-place, W.
CUFFEY—O'CONNOR.—On Feb. 13th, at the Roman Catholic Church, Calry, county Sligo, Edward Cuffey, Surgeon R.N., son of the late John Cuffey, Johnsville, Roscrea, to Charlotte, daughter of James O'Connor, Ballyglass House, county Sligo.
CURRIE—GUBBINS.—On Feb. 8th, at Harrismith, Orange Free State, Oswald James Currie, M.B. Lond., M.R.C.S.E., of Maritzburg, Natal, eldest son of Alexander Currie, of Blackheath, to Sara, second daughter of the late George Gough Gubbins, of Summerville, county Limerick.
KENNINGTON—ABREY.—On Feb. 12th, at the parish church, Tonbridge, Edgar Kennington, M.R.C.S., second son of the late James Kennington, The Hall, Walsham, to Enid, second daughter of John Abrey, Barden Park, Tonbridge.
PATCH—PERSHOUSE.—On Feb. 12th, at St. Mary Magdalene's, Upton, Torquay, Henry Herbert Lloyd Patch, M.R.C.S. Eng., L.R.C.P. Lond., L.S.A., of Chudleigh, to Elizabeth (Lily), eldest daughter of Francis Pershouse, of Chelston Tower, Torquay.
STEGGALL—PURCELL.—On Jan. 17th, at Jamaica, Septimus L. J. Steggall, L.R.C.P. Lond., of Costa Rica, seventh son of J. W. B. Steggall, M.R.C.S., of Queen-square, Bloomsbury, to Edith Aileen Purcell, youngest daughter of the late Captain John Purcell, R.L. Highlanders.

DEATHS.

COLLUM.—On Feb. 12th, Archie Tillyer Collum, M.B. Lond., F.R.C.S., Surgeon at Charing-cross Hospital, of Grosvenor-street, W., son of Robert Collum, M.D., M.R.C.P., Surgeon-Major, Fifth H.E.I.C.S., of Surbiton, Surrey, and Enniskillen, county late Fermanagh, aged 28.
EKIN.—On Feb. 14th, Surgeon-General James Ekin, C.B., M.B. Lond. Univ., aged 67.
HOOPER.—On Feb. 14th, at his residence, Allandale, Westwood-road, Southampton, Charles Hooper, M.R.C.S., aged 75.
HOWARD.—On Jan. 1st, from injuries received in the Natal railway accident of Dec. 31st, 1895, Arthur Bertram Maclagan Howard, L.S.A., L.M.S. Lond., L.R.C.P., L.R.C.S., L.M. Edin., youngest son of the late Edward Howard, Deputy Inspector-General of Hospitals, A.M.D., H.M. 20th Regiment.
RAINY.—On Feb. 14th, at 25, George-square, Edinburgh, Jane Christina, widow of the late George Rainy, M.D., Glasgow.
SAUNDERS.—On Feb. 16th, at Hartham-road, Camden-road, Thomas Jones Saunders, M.R.C.S., L.R.C.P., in his 83rd year.
TUXFORD.—On Feb. 13th, at his residence, The Square, Boston, James Edward Tuxford, M.R.C.S., J.P., in the 93rd year of his age.
WILSON.—On Feb. 16th, at Warrior-square, St. Leonard's-on-Sea, Robert James Wilson, F.R.C.P. Edin., J.P., aged 68.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (24th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (25th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (26th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (27th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (28th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY (29th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (24th).—SOCIETY OF ARTS.—8 P.M. Professor J. M. Thomson: The Chemistry of certain Metals and their Compounds used in Building, and the Changes produced in them by Air, Moisture, and Noxious Gases, &c. (Cantor Lecture.)

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. C. H. Ralfe: On the Causation and Treatment of Obscure Renal Pain.—Mr. Hurry Fenwick: On Exploration of the Kidney in cases of Incontrolable Renal Pain.—Mr. Sydney Rowland: Demonstration of the New Shadow Photography by Roentgen's "X" Rays.

TUESDAY (25th).—SOCIETY OF ARTS.—8 P.M. Mr. W. Burton: The Palette of the Potter.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-sq., W.).—Adjourned Discussion on the Parasite of Malaria, to be introduced by a Paper on the Parasite of Malaria, with special reference to the malarial fevers of the South of Spain, by Dr. Robert J. Marshall and Dr. George Thin.

WEDNESDAY (26th).—SOCIETY OF ARTS.—8 P.M. Mr. A. J. Hipkins: The Standard of Musical Pitch.

THURSDAY (27th).—SOCIETY OF ARTS (Imperial Institute, South Kensington).—4.30 P.M. Mr. C. Tripp: The Tobacco Industry of India and the Far East.

FRIDAY (28th).—CLINICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Cases.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (24th).—LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 1 P.M., Mr. E. T. Collins: Injuries of the Eye.—London Throat Hospital. Gt. Portland-st., W., 8 P.M., Mr. G. Stoker: Chronic Glandular Diseases of the Nose and Pharynx.

TUESDAY (25th).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Delusional Insanity.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

WEDNESDAY (26th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Gowers.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Biss: Chronic Pneumonia and Bronchiectasis.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Diseases of Nails.

LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 8 P.M., Mr. E. T. Collins: Vision Testing.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: Lichenplanus and Allied Diseases.

THURSDAY (27th).—ROYAL INSTITUTION.—3 P.M. Prof. H. Marshall Ward: On some Aspects of Modern Botany.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Sir W. MacCormac: Clinical Lecture.—Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M. Dr. Allan Macfadyen and Mr. A. G. Foulerton: Quantitative Estimation of Albumins Present.

FRIDAY (28th).—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M. Prof. Crookshank: Tuberculosis and Leprosy.

ROYAL INSTITUTION.—9 P.M. Mr. J. Murray: Marine Organisms and their Conditions of Environment.

SATURDAY (29th).—ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Light.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Psorospermosis Cutis.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 20th, 1896.

Date.	Barometer reduced to Sea Level and 32° F	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Feb. 14	30·48	S.	41	37	50	46	40	...	Cloudy
" 15	30 42	N.	44	42	59	50	41	...	Overcast
" 16	30·54	N.E.	41	38	46	43	39	...	Overcast
" 17	30 55	N.E.	38	36	62	43	36	...	Overcast
" 18	30 29	S.E.	35	34	43	41	34	...	Foggy
" 19	29 88	S.E.	41	41	65	54	35	...	Hazy
" 20	29·69	S.	49	48	60	52	41	0·01	Overcast

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*.; by post, 2*s*. 3*d*.

To be obtained on application to the Manager, accompanied by remittance.

"EMOTION AND SOMATIC CONDITION."

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to an article in THE LANCET of Jan. 11th, 1896, in which this sentence occurs, viz.:—"Certain of the emotions, fear and expectation, for instance, have an influence on the body." Now, whether the limitation here involved to "certain emotions" be intentional, or otherwise, on the part of the writer of your leading article I do not know, but I do know that the limitation is unwarranted by the facts. All emotions influence bodily states in precise proportion to their + or − degree, and, *vice versâ*, all bodily states modify emotions. This has been scientifically demonstrated by M. le Dr. Ch. Féré, Medicin de Bicêtre, in his epochal work entitled "La Pathologie des Emotions."

I am, Sirs, yours faithfully,

Glasgow, Feb. 14th, 1896. ROBT. PARK, M.D. Glasg., &c.

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A NEW PREPARATION OF ASBESTOS FOR A MIDDLE SOLE TO BOOTS.

MR. F. PASSMORE, 11, Almeida-street, Islington, N., has directed our attention to a new preparation of asbestos for use as a middle sole to boots and shoes. The middle sole of certain classes of boots are at present composed of all kinds of rubbish which readily absorbs damp, and when thoroughly wet it is almost impossible to dry it again. The invention consists of a preparation of asbestos wool compressed into thin sheets by hydraulic pressure, and waterproofed on one side. As asbestos is a good non-conductor of heat, its use in this direction should tend to keep the feet warm and prevent the various ills arising from cold and damp feet.

A. B. C.—The action of Y, as described by X, is as unintelligible as it is unusual. X. might well, judging from his version of the facts, refuse to meet Y. again. He will act with magnanimity in giving him an opportunity of explaining or apologising.

THE PULSE-GLASS.

To the Editors of THE LANCET.

SIRS,—I should be glad if some of the readers of THE LANCET would kindly tell me whether an instrument was ever used in medicine called a pulse-glass? An old and respected patient of mine showed me a small glass instrument which belonged to his father seventy years ago, and which my patient thought was in some way used for the pulse. It is a small glass tube about five inches long, with two bulbs at its extremities, and about a third filled with a coloured fluid. When held somewhat obliquely in the hand the fluid takes up rhythmical movements or pulsations, not in harmony with the pulse but apparently associated with the heat of the hand; the air above the fluid appears to expand and to determine the fairly regular pulsations. There must be many of your readers who can enlighten me as regards the former use of the pulse-glass, and I hope they will kindly take the trouble to do so in an early number of THE LANCET. My friend purchased a second-hand copy of "The Botanic Garden," by Erasmus Darwin, fourth edition, 1799, and he found a small glass described therein as a pulse-glass and used as a radiometer; it is under Note 8, Canto I. The particular copy of this book bears on its cover, "A gift from Mrs. Erasmus Darwin to Robert N. Friend."

I am, Sirs, yours faithfully,
A MEDICAL MAN.

THE NEW PHOTOGRAPHY *VERSUS* THE ELECTRIC LIGHT.

To the Editors of THE LANCET.

SIRS,—All the reports on the application of the new photography to medicine and surgery reveal great difficulties to be encountered, great uncertainty in the action of the tubes, and delicacy of manipulation required to produce definite results. All these difficulties will, in time, be overcome, but at present the process takes up too much time to be of real practical value to the medical profession. I wish, therefore, to draw attention to the use of the electric light.

Ten years ago, while examining a patient's throat with the incandescent lamp, I found that the cheek was rendered perfectly translucent. I was soon able to put this knowledge to a practical test: a girl with a broken needle in her finger was taken into the dark room, and the light made the hand so translucent that the position of the needle was at once localised. I have used it constantly during the last ten years with very satisfactory results, both in the detection of foreign bodies and malformations in the hand, foot, nose, ear, and wherever, in fact, it is possible to render a part sufficiently translucent. I have frequently demonstrated this to friends, and also at the annual meeting of the Yorkshire Branch of the British Medical Association, held at the Halifax Infirmary four years ago. I do not think the use of the light in this manner is sufficiently well known. For ordinary work I use the small throat lamp, but for deep penetration a larger, placed in a small dark chamber, so that the whole of the light shall be concentrated on the part to be illuminated.

I am, Sirs, yours faithfully,
JOHN OAKLEY, M.R.C.S. Eng.

Holly House, Halifax, Feb. 18th, 1896.

O. P.—The fee of 1s. is the correct one under Section 4 (3) of the Infectious Disease (Notification) Act, 1889, provided the case notified did not occur in private practice, but was under the care of the notifier in his capacity "as medical officer of any public body or institution." The assumption is that such an officer is commonly paid by the public body for performing the various duties attached to his post, and hence the lessened fee. In our opinion it is too small under any circumstances, but in some institutions the number of notifications is large. Where this latter is the case no difficulty arises as to the transmission once a quarter or half-year of a receipt for the accumulated fees. Our correspondent's case of a solitary shilling fee is different; but we believe that any body which has to submit its accounts for audit is bound to produce a receipt, and could refuse further payments unless such receipt was delivered at their office by hand or by post.

Mr. J. Montfort Schley.—Copies of the Contagious Diseases Acts, 1864, 1866, and 1869 could no doubt be obtained from Messrs. Spottiswoode and Co., East Harding-street, E.C. They are all short Acts and would not cost much.

"TREATMENT OF CEPHALALGIA."

A. B. writes:—"In reply to B. de W. H., requesting suggestions for treating an obstinate case of cephalalgia, if the numerous remedies recommended in Section 1429 of the 'Medical Digest and Appendix' have failed I would advise a trial of a percuteur, which, if there be no coarse lesion present, may effect a cure."

Juvenis.—Speaking legally, H. might be expected either to do the work or provide a substitute. The rule when an assistant falls ill is for the principal to act with consideration and not stand too rigidly on legal rights. In answer to the second question, we think that in the absence of a notice in writing H. is entitled to resume his work. There is nothing fixed as to holidays; five days in two years and eight months is quite insufficient.

Mr. James Williamson.—We cannot recommend any remedy. First, we never prescribe for patients; secondly, no one can prescribe properly without seeing the case. Our correspondent's trouble is a common one proceeding from various causes. A medical man would be able to tell him whether any remedy would be of probable avail and what.

Mr. M. J. Rees.—One guinea.

BRAMSCHWEIG'S CIRURGIA.

To the Editors of THE LANCET.

SIRS,—I should be very much obliged to any of your readers who could help me in a bibliographical difficulty. I am desirous of purchasing a copy of "Bramschweig's Cirurgia," 1513 (Strassburg), and two have been submitted to me for approval. Each of them has the same apparent deficiency, and I am desirous of ascertaining whether the copies are really defective—i.e., incomplete as regards four pages—or whether it is one of those printer's errors so common in early editions. The book is printed in sheets of six leaves, and from the second, signed B, to the end, there is no variation in this respect. B 1, instead of being numbered vii. (pagination is on one side only) and being preceded by six A's, is numbered ix.; but in the copies submitted to me there are only four leaves preceding numbered i. to iiii. According to the pagination there are four leaves missing, but according to the signatures there ought only to be six in all—i.e., two missing. Although I cannot read the Old German (the book being chiefly valuable and interesting for its cuts), it would seem as if the text went on properly from the verso of iv. to the recto of ix., the former having the heading of a chapter and a woodcut, the latter commencing a chapter. I may add that the table of contents gives page viii. as that on which to find the chapter "Von der Anathomi," but in the book it commences on page xi. The question, in short, is how many leaves precede page numbered ix., signature B 1, but the details which precede may be useful to book collectors. I may add that this very curious and rare medical picture-book is not to be found in either the Bibliothèque Nationale or the Library of the Faculty of Medicine of this city.—I am, Sirs, yours truly,

Paris, Feb. 17th, 1896. HISTORICUS.

Mr. W. B. Fotheringham.—Our correspondent's observations are perfectly sound, and the suggestion has already been made, but, so far as we know at present, not yet realised. We believe there would be some difficulty in getting aluminium sheeting proof against the entrance of air with such high vacua.

Mr. Henry G. Terry, Mr. Fredk. Lace.—The chairman seems to have exceeded his duty in specifying the other appointments of the applicants for the post of honorary surgeon to the Royal Mineral Water Hospital.

M. D.—We fear the matter is not so simple.

During the week marked copies of the following newspapers have been received:—*Eastern Morning News, Kenilworth Advertiser, Coventry Standard, Midland Daily Telegraph, Medical Record (New York), Christian Age, Bromsgrove Messenger, Ipswich Journal, Bradford Daily Telegraph, Mexican Herald, Dundee Advertiser, Sanitary Record, City Press, Weekly Free Press and Aberdeen Herald, Mining Journal, Western Morning News, Birmingham Daily Post, Sussex Daily News, South Western Star, West Middlesex Standard, Local Government Chronicle, Reading Mercury, Yorkshire Post, Liverpool Daily Post, Times of India, Leeds Mercury, Pioneer Mail, Architect, Bristol Mercury, Madras Times, Birmingham Daily Gazette, Oban Times, Brighton Herald, Wolverhampton Chronicle, Builder, Scotsman, Bradford Observer, Hertfordshire Mercury, North Star, Walsall Advertiser, Essex County Chronicle, East Anglian Daily Times, South Wales Daily News, Pullin's Kent Argus, Jackson's Oxford Journal, Newcastle Journal, Sheffield Telegraph, Gloucester Journal, Local Government Journal, Gloucestershire Echo, Gloucestershire Chronicle, Tunbridge Wells Advertiser, Northern Daily Mail, Northern Guardian, Surrey Advertiser, Carpenter and Builder, Allahabad Morning Post, National Observer, Oldham Evening Chronicle, Keble's Margate and Ramsgate Gazette, Western Mail, &c., &c.*

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A Clinical Lecture
ON
GONORRHŒAL MALIGNANT ENDOCARDITIS.

Delivered at Guy's Hospital on Jan. 11th, 1896,

BY W. HALE WHITE, M.D., F.R.C.P. LOND.,
PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—You will remember that at our last clinical lecture I mentioned the case of a man in Stephen Ward who was thought to be suffering from recently developed endocarditis of his pulmonary valve. As now I can show you his heart his case will form an interesting subject for a clinical lecture. He was admitted into the hospital on Sept. 23rd, 1895, and his age was nineteen years. His family history was good and he had never had any illness before the present, except that four weeks previously he contracted gonorrhœa. For about a fortnight before he came in he had not been well, but on Sept. 14th he had four rigors, and between this date and his admission he had seven more, each lasting about twenty minutes and accompanied by much sweating, but he had not felt ill. On admission he looked rather anæmic, although he was well nourished. We examined him most thoroughly, and except for a few râles at the bases of the lungs and a slight blurring of his right optic disc every organ in his body appeared to be healthy. By Oct. 3rd, since he came in, he had had eight rigors, in which the temperature had exceeded 105° F. twice and had been over 104° four times. After a rigor there had been a rapid fall, often to as low as 96°, and apart from the rigors the temperature frequently varied several degrees in a few hours. He had profuse sweats and was rather more anæmic. The râles and the optic discs remained as they were and no fresh signs of any sort developed. It had been frequently noticed that when the temperature was high the pulse and respirations were not proportionately rapid, thus with a temperature of 105·6° the pulse was 108 and the respirations were 28. The patient's only complaint was that the rigors were disagreeable. He said that in between them he was perfectly well. On Oct. 5th for the first time a faint diastolic murmur was heard over the third left costal cartilage, and the next morning a faint systolic murmur could be heard there also; it was conducted a little upwards and to the left. On Oct. 29th the report stated that the temperature continued to fluctuate widely and irregularly, the patient had often had rigors, he had sweated much, and his splenic dulness had increased to beyond the normal limit. He remained anæmic, and the systolic and diastolic murmurs in the pulmonary area, though varying in intensity from day to day, had been constantly present. Sometimes there had been a little cough, but no fresh sounds had developed in the lungs; there was very little expectoration, but no tubercle bacilli could be found in it. Repeated examinations of the urine failed to reveal any abnormal condition. On Nov. 1st the urine contained a considerable amount of albumin, blood, blood casts, and epithelial cells. On the 9th all the symptoms previously mentioned persisted and the urine contained much blood; for the last few days he had suffered considerably from diarrhœa. On the 12th for the first time œdema of the face appeared, and lately many râles and rhonchi had been heard in the lungs. On the 19th the patient had become much worse, the œdema had become extensive and general, and the anæmia was now profound. Every day the urine contained much blood and the patient suffered from diarrhœa. The extensive fluctuations of temperature continued. Attacks of dyspnœa due almost certainly to uræmia were frequently noticed, and in the evening the patient died in one of them.

During the few days we saw this patient we had to think of all the various diseases from which a man who had high fever on admission might be suffering. The first thing to observe was that there was no sign of any of the shorter specific fevers such as scarlet fever or pneumonia, and, further, if the history was correct he had already had pyrexia too long for any of them, so we had before us the problem which is constantly perplexing us—namely, What is the matter with a patient who has long-continued pyrexia? Let us now try to answer this question according to our experience, and I think it certainly teaches us that we should always begin by trying to find out whether the patient can possibly have typhoid fever; we decided he had not, because although in typhoid fever the onset is occasionally sudden and accompanied by a rigor repeated rigors early in the disease are probably unknown. Very rarely you may see them about the end of the third or fourth week, but then they are usually due to some complication, as phlebitis, an abscess, or periostitis. Then, again, the wide and rapid variations of temperature this patient showed are very unlike typhoid pyrexia, in which the difference between the night and morning temperature is not commonly more than two or three degrees, unless it be in the third or fourth week, when, as I have often shown you, the temperature is very ataxic, probably because by then the controlling mechanism is thoroughly exhausted, but then the maximum attained is never 105·6°. Further, too, patients who have typhoid fever do not suffer from profuse sweats, the skin is usually moderately dry, and they commonly feel ill, but our patient sweated profusely and felt well. I need hardly add that we cross-questioned and examined him for all the ordinary signs of typhoid fever, such as headache, deafness, spots, characteristic tongue, enlarged spleen, and diarrhœa, with negative results.

The next thing you ought to ask yourself in such a case is, Has the patient a collection of pus somewhere? The type of temperature, the rigors, the sweats, and the anæmia were suggestive of this, and we examined him most carefully without finding any evidence of pus in any part of the body. Never forget in such cases to examine the rectum. You may find by that means an abscess in the prostate or in Douglas's pouch even when the patient complains of absolutely no symptoms pointing to it; also, always search the body carefully for a tender spot. I have detected a deep-seated suppurating hydatid by this sign only. Lastly never forget the ears and the teeth. Let me now remind you always, in any obscure febrile illness, to consider the possibility of influenza; bad mistakes have been made from forgetting this. We decided against it with our patient, for the duration, the frequency of the rigors, and the absence of prostration were all very unlike influenza, which, too, was not prevalent in September. Another very important malady always to have before you is acute miliary tuberculosis. This, you know, is a disease in which there is a very rapid development of innumerable grey tuberculous granulations in many parts of the body, especially in adults in the lungs. Generally speaking, infection takes place from some tuberculous matter already present in the body, such as a caseous gland or a caseous nodule in the lung. The onset is often sudden; rigors, profuse sweats, and a widely fluctuating temperature are commonly present from the first—all evidence that the toxæmia is very severe, and, indeed, the cases usually die within a month. But these grey granulations may exist two or three weeks before they cause any local symptoms, and, therefore, early in the case a diagnosis is often impossible, although the disease may be strongly suspected. In children the tubercles in the meninges often induce meningitis, and as soon as the signs of this are detected the diagnosis becomes easy; in adults the tubercles in the lungs are commonly the first to give signs, which they do by setting up bronchitis and patchy consolidation of the lungs. Some of you may remember a woman in Mary Ward whose temperature, rigors, and sweats were very like this man's, and it was not until after a fortnight that signs appeared in the lungs; these enabled us to make a diagnosis of acute miliary tuberculosis. She died within a month, and the diagnosis was found to be correct. Two symptoms that may help you before any pulmonary signs have developed are slight lividity and rapid respirations; also you will never forget to look for tubercles in the choroid, and even the blood may be examined. Unfortunately for diagnosis usually there is little or no expectoration till quite late in the case. Whilst we had fully before us the possibility that our patient might have acute miliary tuberculosis, on the whole we did not think it likely as we could find no local signs, although he had been ill for a fortnight. Malignant endocarditis, too, was discussed, and the rigors, the temperature, the sweats, and the anæmia were all very suggestive of it. But we could not diagnose it certainly, for there was no murmur, the heart appeared normal in all respects, there was nothing to point

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to previous heart disease, and no source of infection could be found, for we did not learn till after the patient had been in hospital a few days that he had had gonorrhœa recently. We also discussed whether he might have phlebitis. This occurs—usually in the left femoral or saphena vein—after many diseases, particularly typhoid fever, pyæmia, and septicæmia, and in the lateral sinus after disease of the ear. Typhoid bacilli and streptococci have been detected in the clot. Its occurrence is often accompanied by rigors, sweats, and pyrexia, as I have seen in a case in which it followed typhoid fever; and you must remember that it may be met with after confinements and operations, even when it is the only evidence that septic processes have taken place, and sometimes in such cases the phlebitis begins in veins inside the pelvis. But we put this diagnosis aside in our patient, for not only were there no local signs in any part of the body, such as tenderness and swelling, but there was no pain, and acute phlebitis is almost invariably accompanied by severe pain, often agonising, and largely due, no doubt, to the stretching of the tissue caused by the rapid œdema of the parts which return their blood by the diseased vein. For instance, I have seen the calf of the leg double its circumference in a few hours; just think how painful that must have been. The next disease which passed through our mind was ague. Our patient's case would have been a very irregular example of this disease, which we easily put out of court as he had never been in a district where ague is prevalent. If he had we should have examined his blood for the plasmodium malariæ.

Some of you asked whether the temperature might be "neurotic." Quite a large number of cases are on record in which no organic lesion could be detected and the patient was not thought to be suffering from any known specific fever, but yet the temperature was raised. When these patients are obviously hysterical they are said to be suffering from hysterical fever, otherwise the pyrexia is by some called inexplicable and by others innominate. But do let me beg of you not to make this diagnosis hastily. You ought never to make it unless you have watched your patient a fortnight at least; it is so easy to overlook almost any of the diseases which we have already mentioned as causing long-continued pyrexia. So impressed am I with the great danger you run if you say a patient has this variety of pyrexia that I hardly ever talk about it at the bedside. We waited in the case of our patient, and the events showed what a bad mistake we should have made if we had not done so. The result, therefore, of our discussion during the first few days of the patient's stay in the hospital was that we felt we could not decide upon the cause of his pyrexia, and that, therefore, all that could be done was to try to maintain his strength and watch the course of events. On Oct. 4th a diastolic murmur was heard in the pulmonary area, and the next day a systolic murmur was also audible there. A hæmic murmur is never diastolic and a systolic murmur audible over the third left costal cartilage and conducted up to the left is, if not hæmic, significant of disease of the pulmonary valves, and therefore we concluded that this patient had endocarditis of his pulmonary valves. These murmurs were the very sign for which we had been waiting to complete our diagnosis of malignant endocarditis, which accordingly we now wrote up over the head of the patient's bed.

Malignant endocarditis is a disease in which specific micro-organisms carried by the blood-stream to the heart grow upon the endocardium—almost always that of the valves,—and inasmuch as they are carried to the heart by the veins they not infrequently cause malignant endocarditis of the right side of the heart, although it is not so common there as on the left; and I find that at Guy's Hospital we have one case a year of right-sided malignant endocarditis, and that for every four times the tricuspid valve is affected the pulmonary is implicated once. Even if in this patient we had not had the other signs of malignant endocarditis, such as pyrexia, rigors, and anæmia, the development of a murmur on the right side of the heart, neither hæmic nor congenital nor secondary to disease of the lung nor to disease of the left side of the heart, would have rendered malignant endocarditis almost certain. The importance of this has been exemplified only this week in the case of a man I saw outside the hospital who some weeks after the subsidence of an attack of pleurisy still has pyrexia, and while under the observation of his medical man has developed a loud to-and-fro tricuspid murmur which renders it almost certain that he has malignant endocarditis. The probability of this disease is still further increased when, as in our patient, the murmur was pulmonary, for although in very rare cases rheumatism may affect the tricuspid valve it always spares the pulmonary.

Having decided that our patient had malignant endocarditis of his pulmonary valve we had next to try to discover what was the cause of the malignant endocarditis. The micro-organisms which are found in cases of septicæmia and pyæmia are probably the most common cause of malignant endocarditis, and therefore it is met with as a complication of pyæmia, and Dr. Goodhart pointed out many years ago that when pyæmia is common cases of malignant endocarditis occur frequently. Puerperal cases are not uncommon; there was a very good example in No. 3 bed in Mary Ward a year ago. Often, however, in cases where after death streptococci and staphylococci are found on the valves, no source of infection can be discovered. We have had many instances of this during the last few years. The only other common cause of malignant endocarditis is pneumonia; indeed, in Osler's series this was responsible for it in 25 per cent. of his cases. In very rare cases it may follow erysipelas, and the bacilli of enterica, diphtheria, tubercle, anthrax, and the gonococcus have all been found to be the cause of malignant endocarditis, but in each of these cases the infection of the valves is relatively rare, but as gonorrhœa is such a common affection, although a very small proportion of the sufferers from it get endocarditis, a considerable number of cases have been recorded.[1] To this list influenza should be added, for I had under my care a patient whose malignant endocarditis appeared to follow this disease. When on Oct. 4th we decided that our patient had malignant endocarditis we went over all these causes and then I learnt for the first time that he had recently had gonorrhœa, and therefore we came to the conclusion that he had gonorrhœal malignant endocarditis affecting the pulmonary valve. Dr. Washbourn examined his blood for the gonococcus without success, but this micro-organism is difficult to detect in the blood. I will show you his heart and you will see that the pulmonary valve is extensively affected with recent malignant endocarditis; on one cusp of it there is a mass of vegetations the size of a pea, which has by its flapping caused an erosion on the pulmonary artery, and also ulceration and perforation of the contiguous pulmonary cusp. Mr. Pakes examined the vegetations for the gonococcus, and I believe found them, but unfortunately he is abroad, so we cannot obtain his report, but there is no reasonable doubt that the malignant endocarditis is gonorrhœal.

In the vast majority of cases in which the human subject is invaded by the gonococcus the effect is purely local in the urethra, but in a few cases the gonococcus after getting into the circulation produces inflammation of distant parts, usually the joints, and there is now in Stephen Ward one of the severest cases of gonorrhœal rheumatism I have ever seen; the affected joints are red and swollen, the pain is continuous, and the temperature high. Sometimes the micro-organism affects the pericardium producing pericarditis or the pleuræ producing pleurisy. The case is recorded of a girl aged eleven years who, after being raped by a man who had gonorrhœa, developed pleuritic effusion in which gonococci were found. Rare as gonorrhœal endocarditis is I am fortunate in being able to show you another specimen from our museum where also the pulmonary valves are affected. It is the heart of a man (who was under the care of Mr. Durham) who had gonorrhœa, and who died from the consequent malignant endocarditis; and to further demonstrate malignant endocarditis of the pulmonary valve I also show you the heart of a woman (who was under Dr. Pye-Smith) in whom it followed her confinement. You will easily see the extensive affection of the pulmonary valve.

There are one or two other points of interest about the case to which I should like to direct your attention. You will remember that the pulmonary murmur was to-and-fro. This of itself makes it highly improbable that it is congenital, for congenital pulmonary murmurs are almost always systolic only. We often noted that when the temperature was raised the pulse and respiration were not much increased. This is often the case with diseases in which the temperature in a few hours makes an excursion of many degrees, and I have noticed it in other cases of malignant endocarditis. It was also very striking that even when his temperature was 105° or more he did not seem to mind it and he remained mentally

[1] See the Medical Chronicle, v.l. iv., No. 5, p. 362.

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clear. This, too, you will often notice in the early stages of diseases characterised by these wide fluctuations of temperature. A very important point to which I wish to direct your attention is that during life this patient's urine contained albumin, blood, blood casts, and epithelial casts; his face was œdematous and he had attacks of dyspnœa very suggestive of uræmia. The kidneys were found to be large and pale; they weighed 18 oz.; there was much tubal nephritis, together with numerous petechial spots under the capsule. It is in my experience very common to find tubal nephritis with hæmorrhagic spots in malignant endocarditis, and it is by no means rare for the nephritis to give, as it did in this man, distinct evidence during life. Often, too, I think uræmia is the final cause of death in malignant endocarditis. Sometimes this kidney trouble quite overshadows the symptoms of endocarditis, as in a patient who was admitted under me with aortic murmurs and slight pyrexia. In a day or two the temperature fell and remained normal for four weeks, but the patient all this time had albuminuria, hæmaturia, diminished urea, a low specific gravity of his urine, and a hard pulse, so that we began to wonder whether we had not been wrong in supposing, as we did on his admission, that he had malignant endocarditis, and we were inclined to think that in addition to his aortic disease he had chronic Bright's disease. Subsequently the temperature rose again, but as at the same time he developed pleurisy the pyrexia was ascribed to this. He developed typical uræmic convulsions and died. He was found to have malignant endocarditis and large, pale kidneys, with much tubal change and numerous severe hæmorrhages in these organs.

Another point of importance is that the duration of malignant endocarditis is most variable. The patient may live only a few weeks or many months. For instance, in 1894 there was a woman in Mary Ward who was confined on June 17th. About July 12th she had her first rigor; her medical adviser detected endocarditis in August, and she died on Oct. 23rd—that is to say, about eighteen weeks after her confinement. Another case came into Mary Ward on Feb. 11th, 1891, with malignant endocarditis; the patient got well enough to go out, but returned to the hospital again with symptoms of the disease and died on Sept. 30th, eight months and a half after her first admission. In another case the malignant endocarditis dated from at least Sept. 10th, 1894, but the patient did not die till Jan. 3rd, 1895. These long-lasting cases raise the question whether the disease is recoverable. I know of no case in which a subsequent post-mortem examination has proved that this is possible, but from time to time patients who have every sign of the disease are discharged from the hospital apparently well. For instance, a woman was in Mary Ward with every symptom of malignant endocarditis after her confinement. She left apparently cured after three months' stay in the hospital, the murmur having entirely disappeared; and I once saw outside the hospital a patient who presented every sign of the disease, but who got quite well and was in excellent health many months afterwards. All that can be done in the way of treatment is to keep up the patient's strength by careful feeding and nursing and by rest in bed. If the temperature is not high and the anæmia profound iron may be given. Some writers consider that arsenic and quinine are useful.

ON DIARRHŒA IN MANCHESTER IN 1895, WITH SPECIAL RELATION TO INFANT FEEDING: A PRELIMINARY INVESTIGATION.

BY JAMES NIVEN, M.B., M.A. CANTAB.,
MEDICAL OFFICER OF HEALTH OF THE CITY OF MANCHESTER.

DURING the autumn of 1895 the sanitary inspectors made a special inquiry into a number of circumstances connected with deaths ascribed to summer diarrhœa, and, although nothing new has been ascertained in regard to the disease, the application of the lessons to be derived from previous work still, in the main, remains to be made. Moreover, there are important details in connexion with the general conclusions previously arrived at which are susceptible of greater precision of statement and which require such precision. Further, as a preliminary to investigation of a more searching character, it is necessary not only to arrive at positive conclusions as to those features of the disease which offer the greatest chance of successful research, but also to make oneself acquainted with the difficulties and requirements attending this particular study. In his well-known inquiry into diarrhœa, published as a supplement to the report of the medical officer of the Local Government Board for 1887, Dr. Ballard, as the result of exhaustive analysis of a mass of statistical information, arrives at these conclusions.

1. The disease known as summer diarrhœa is a specific malady, that is to say, it has a definite individuality, and the term does not cover a multitude of affections, intercurrent incidences in different pathological states. In support of this contention, he adduces the striking renal changes, as well as the fatty degeneration of the liver invariably present in the fatal cases examined. He also points to the remarkably close manner in which the summer rise of diarrhœal mortality follows the indications of the four-foot earth thermometer, only commencing definitely when the reading is above 56° F., and attaining its maximum in the week in which the temperature recorded by that thermometer attains its mean weekly maximum. The inference which he draws from the connexion observed is that diarrhœa is probably due to bacteria in the superficial layers of the earth. Now, although the pathological changes in fatal cases are in themselves insufficient ground for such a conclusion, I agree with Dr. Ballard that the behaviour of summer diarrhœa, as a whole, points in this direction. Still, though this may be a just view, it cannot be regarded as more, at present, than a general impression gathered from the scrutiny of all the facts, needing confirmation, which can only come from a bacteriological quest for the supposed specific cause of the disease. But, if we accept Dr. Ballard's hypothesis, it would seem that his data warrant us in the same spirit in venturing further on the speculation that some light on the etiology of the presumed disease is to be gathered from contemplation of its epidemic course. We may suppose provisionally that the cause of summer diarrhœa is a specific micro-organism which is more susceptible to the influence of temperature than many of the other bacteria with which the superficial layers of the earth are crowded, and that, consequently, in the cold season it is overgrown and thrust downward into the deeper layers of the soil, where, we must further suppose, the conditions of life are more favourable to it than to the bacteria living generally on the surface. It must, further, possess the power of growing in organic solutions, such as are easily accessible for experiment. We may suppose that the rise of temperature in summer continues until such a temperature is reached in the deeper layers of the soil as starts the specific organism into copious growth, and that it then develops a general vigour of vegetative activity which soon enables it to reach the surface in masses, and so to find its way into the air. Now, if this is a reasonable explanation of the observed phenomena the proper end to begin with in an etiological inquiry into summer diarrhœa is not necessarily the human body, but rather the bacteriological history of different layers of the ground at different periods of the year. The bacterium or bacteria concerned in summer diarrhœa will certainly be found infinitely more abundantly in the superficial layers of the soil in the diarrhœal season than at other times, and may also, and probably will, be found in the non-diarrhœal season more abundantly in the deeper layers of the soil. By parallel lines of investigation on milk and on the contents of the bowels of children who have died from summer diarrhœa, it should be possible to find the specific cause of diarrhœa, supposing such to exist.

2. Excessive prevalence of diarrhœa is associated with the presence of insanitary conditions, especially with such as imply the presence of filth. Among such conditions especially are fouling of the soil, dirty houses, overcrowding, and imperfect circulation of the air in the rear of houses. It would appear, if we accept these conclusions, that the occurrence of diarrhœa is influenced partly by the condition, as regards general health, of the sufferers previous to the specific attack; and there is, indeed, ample evidence to this effect in other directions.

3. Fatal diarrhœa is immensely influenced by the food of which the infant partakes immediately before an attack. Indeed, so preponderating is the effect of feeding in producing fatal diarrhœa that it becomes a matter of prime importance in itself, as far as preventive medicine is concerned, independently of any speculation as to the etiology of diarrhœa. Dr. Ballard's hypothesis of the connexion of

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food with the disease had better be given in his own words:—"That in food, inside of as well as outside of the human body, such micro-organism finds, especially at certain seasons, nidus and pabulum convenient for its development, multiplication, or evolution. That from food, as also from the contained organic matter of particular soils, such micro-organism can manufacture, by the chemical changes wrought therein through certain of its life processes, a substance which is a *virulent chemical poison*. That this chemical substance is, in the human body, the material cause of epidemic diarrhœa." It would appear from this that Dr. Ballard was inclined generally to ascribe the diarrhœal attack to chemical materials manufactured outside the body. I do not know on what this view, supposing him to hold it, is based.

When the inquiry into summer diarrhœa was begun in 1894 I was not acquainted with Dr. Hope's paper, nor until recently did I learn the full scope of the work which he did in connexion with infant feeding. I find that his investigations, which extended over several years, anticipate and in some respects go beyond those which I have instituted. I am, however, only the more convinced that further continued investigations are required into the subjects which he has very ably discussed, especially as immediate practical deductions can be, in all cases, drawn from local inquiries which will appeal to sanitary authorities. I have generally pursued the same line of inquiry as Dr. Hope had previously done, with the exception that I endeavoured to find a basis in the habits of infant feeding of the population generally, and that the inquiries were made through the sanitary inspectors. In this last respect the figures do not possess the value which those of Dr. Hope do, and they require to be tested by a comparison with those which he obtained by personal inquiry. I had, however, the more important parts of the inquiry overhauled by Dr. A. J. Tonkin, the resident medical officer at Clayton Vale Hospital, Newton Heath. They are in general accord with Dr. Hope's results and therefore possess an added value. It is clearly of much value to ascertain what are the facts as regards infant feeding, since much may be done both as regards the quality of food supplied to children and also in educating the public in the precautions necessary to prevent children from partaking of contaminated food. In fact, assuming the correctness of Dr. Ballard's views as to the etiology of diarrhœa, the two points to which attention should be more especially directed are (1) the purification of the ground if contaminated, and (2) the effectual killing of disease germs in the milk at as early a period as possible, and again before consumption.

In order to ascertain what is the relative degree of danger to breast-fed and artificially-fed infants respectively of dying from summer diarrhœa at early ages I have drawn up a statement from the inspectors' inquiry forms showing the ages and modes of feeding for each month of age under twelve months, 500 consecutive deaths from diarrhœa in August and September being used for this inquiry.

There died altogether at the following ages:—Under 1 month, 12; 1 month, 36; 2 months, 43; 3 months, 47; 4 months, 37; 5 months, 38; 6 months, 30; 7 months, 21; 8 months, 27; 9 months, 30; 10 months, 31; 11 months, 21; 12 months, 13; and over 12 months, 114; total, 500.

Of these the following were being breast-fed when taken ill:—Under 1 month, 1; 1 month, 2; 2 months, 3; 3 months, 3; 4 months, 1; 5 months, 2; 6 months, 0; 7 months, 0; 8 months, 1; 9 months, 0; 10 months, 2; 11 months, 0; and 12 months, 0.

The following were being partly suckled and partly artificially fed:—Under 1 month, 2; 1 month, 7; 2 months, 4; 3 months, 10; 4 months, 8; 5 months, 6; 6 months, 7; 7 months, 5; 8 months, 5; 9 months, 6; 10 months, 4; 11 months, 6; and 12 months, 5.

Now, in order to ascertain what degree of risk of death from diarrhœa children are running in the first twelve months of life it is necessary—as, indeed, Dr. Hope remarks in his paper—that a basis of comparison should be obtained by ascertaining what proportion of all children are being fed on the breast at different ages. Such an inquiry was made on a form provided for the sanitary inspectors. Before they commenced filling in their returns I made some inquiries personally, which satisfied me that the chief difficulty they would have to encounter would be that the parents would loosely answer that the children were being breast-fed when they were really being in part fed by hand, and they were consequently warned to be careful to avoid this source of fallacy. They were instructed further to select districts in which fatal diarrhœa was rife, and to take the history of the youngest children living under three years of age, and, if the last child had died, to take the history of that child instead. This statement, therefore, represents the habits of all the poorer districts in the city of Manchester. In spite of the warning given their papers convey the impression that they had in some instances failed to appreciate its necessity and importance. Another inquiry, relating to 400 children, instituted by Dr. Tonkin at my request, and to 50, which I personally made, is taken as the basis of a comparative statement. First, then, as to the inspectors' returns.

1. The numbers of children living at or to different ages to whom the particulars of infant feeding relate are as follows:—Under 1 month, 5; 1 month, 20; 2 months, 26; 3 months, 32; 4 months, 27; 5 months, 32; 6 months, 23; 7 months, 29; 8 months, 39; 9 months, 39; 10 months, 32; 11 months, 23; 12 months, 38; and over 12 months, 635; total, 1000.

2. Of the above the following were never fed entirely at the breast:—Under 1 month, 0; 1 month, 2; 2 months, 4; 3 months, 6; 4 months, 3; 5 months, 4; 6 months, 0; 7 months, 5; 8 months, 6; 9 months, 3; 10 months, 5; 11 months, 4; 12 months, 9; and over 12 months, 55; total, 106.

3. Of those enumerated in No. 2 the following were fed partly at the breast up to the following ages:—Under 1 month, 0; 1 month, 0; 2 months, 3; 3 months, 2; 4 months, 1; 5 months, 1; 6 months, 0; 7 months, 1; 8 months, 5; 9 months, 0; 10 months, 3; 11 months, 2; 12 months, 4; and over 12 months, 13; total, 35.

Of 894 children out of 1000 fed entirely at the breast for varying periods the following are the numbers at different ages breast-fed, practically entirely, up to the understated periods, those breast-fed up to higher ages not being included in the figures at any given age:—Under 1 month, 43; 1 month, 54; 2 months, 47; 3 months, 72; 4 months, 48; 5 months, 50; 6 months, 82; 7 months, 30; 8 months, 49; 9 months, 89; 10 months, 56; 11 months, 31; 12 months, 122; and over 12 months, 121; total, 894.

Of these the following had just reached the ages above given, and were, therefore, still being breast-fed except those who had died:—Under 1 month, 5; 1 month, 20; 2 months, 18; 3 months, 20; 4 months, 17; 5 months, 20; 6 months, 19; 7 months, 13; 8 months, 16; 9 months, 23; 10 months, 14; 11 months, 6; and 12 months, 9; total, 200.

The above figures may be presented in the following convenient shape. Out of 1000 children there are fed on the breast up to the commencement of the following ages:—1 month, 851; 2 months, 797; 3 months, 750; 4 months, 678; 5 months, 630; 6 months, 580; 7 months, 498; 8 months, 468; 9 months, 419; 10 months, 330; 11 months, 274; 12 months, 243; and over 12 months, 121.

The following were not entirely fed on the breast at the entrance to the respective ages:—One month, 144; 2 months, 178; 3 months, 199; 4 months, 239; 5 months, 280; 6 months, 278; 7 months, 337; 8 months, 338; 9 months, 348; 10 months, 398; 11 months, 422; 12 months, 430; and over 12 months, 514.

If, now, such a number of diarrhœa inquiries were to hand as to enable us to get a sufficient number of deaths from breast-fed children in each month of life, we should be able to obtain an estimate of the influence of artificial feeding in the various early months of life. Thus referring to the figures relating to diarrhœa mortality, we see that the chance of death by summer diarrhœa under the age of one month in the infant fed by hand, wholly or in part, is to the chance of death of the breast-fed child at the same age at least $\frac{11}{1} \times \frac{851}{144}$. That is at least 65 to 1. Similarly the chance of death from summer diarrhœa at the age of one month in the two classes is $\frac{34}{2} \times \frac{797}{178}$. That is at least 76 to 1. The same calculation can be made all the way through the months, failing, of course, on account of the paucity of deaths in breast-fed infants at higher months.

It has been mentioned that a corresponding calculation was made as regards infant feeding of 450 cases, the inquiry as to whom was conducted with a rigorous effort to exclude the fallacy mentioned. In this the number of infants fed entirely on the breast diminishes much more rapidly in the higher months of life than it does in the above statement, and the odds, therefore, against hand-fed children at the more

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advanced months of life are much smaller. Nevertheless, it is manifest from both calculations that, especially in the earlier months of life, artificial feeding plays a most important part in bringing about the fatal result, though it is probable that more extended figures would show that this effect rapidly diminished with each month of life, especially in infants partly suckled. Such, indeed, is the conclusion to which Dr. Hope's figures also point, though, even in the absence of inquiries into deaths from diarrhœa in sucklings sufficiently numerous to afford a complete calculation of probabilities, I have thought it worth while to give the method by which a complete statement of the fatality resulting from a complex of causes may be exhibited. If we take the three-month periods used by Dr. Hope, then for every death in a breast-fed child, well over 53 would occur amongst children under three months in an equal number of children hand-fed, wholly or in part. In the same way, from three to six months, well over 40 deaths occurred among children hand-fed, wholly or in part, to one among sucklings out of the same number. But, as I have said, the figures are insufficient, and the disproportion is in reality greater than the above figures indicate.

This subject may be attacked in another and more satisfactory way. The method of calculation followed above does not lend itself so readily to the estimation of the relative chances of partially suckled children and of children entirely breast fed or entirely hand fed, and it is desirable to be able to form some estimate of the influence of partial suckling. The calculation may be made in the following manner, which, however, is to be taken, along with that just given, rather as a device for utilising to the utmost the materials derived from a house-to-house inquiry than as a complete answer to the question, What are the relative chances of death at different ages of breast-fed, hand-fed, and partially suckled infants? The months of life lived, *at each month of life*, by each of the 450 children whose habits of feeding were inquired into by Dr. Tonkin and myself are excerpted and recorded, and the following results are obtained by simple addition. These 450 children, who, be it remembered, were many of them three years old, and a number of whom had died, lived the following number of months of life at the months of life hereunder:—

1. Entirely hand fed:—Under 1 month, 34; 1 month, 36; 2 months, 46; 3 months, 53; 4 months, 54; 5 months, 52; 6 months, 54; 7 months, 55; 8 months, 53; 9 months, 62; 10 months, 67; 11 months, 73; and 12 months, 93.

2. They lived the following months of life, partly breast fed and partly hand fed:—Under 1 month, 23; 1 month, 23; 2 months, 45; 3 months, 69; 4 months, 77; 5 months, 95; 6 months, 163; 7 months, 172; 8 months, 189; 9 months, 196; 10 months, 194; 11 months, 184; and 12 months, 152.

3. They lived the following months of life, at the following ages in months, having no other food than the breast:—Under 1 month, 390; 1 month, 333; 2 months, 288; 3 months, 265; 4 months, 238; 5 months, 148; 6 months, 115; 7 months, 90; 8 months, 51; 9 months, 31; 10 months, 20; and 11 months, 10.

Now it will be remembered that the deaths were as follows of the 500 cases of diarrhœa investigated:—

4. Among the hand-fed at ages in months they were as follows:—Under 1 month, 9; 1 month, 27; 2 months, 36; 3 months, 34; 4 months, 28; 5 months, 30; 6 months, 23; 7 months, 16; 8 months, 21; 9 months, 24; 10 months, 25; and 11 months, 15.

5. Among the partly suckled and partly breast-fed they were as follows:—Under 1 month, 2; 1 month, 7; 2 months, 4; 3 months, 10; 4 months, 8; 5 months, 6; 6 months, 7; 7 months, 5; 8 months, 5; 9 months, 6; 10 months, 4; and 11 months, 6.

6. The figures for the entirely breast fed were as follows:—Under 1 month, 1; 1 month, 2; 2 months, 3; 3 months, 3; 4 months, 1; 5 months, 2; 6 months, 0; 7 months, 0; 8 months, 1; 9 months, 0; and 10 months, 2.

In calculating from these figures the relative chances of dying from summer diarrhœa in the three classes, the assumption is made that the first three sets of figures given above are a fair representation of the relative numbers of children living at those ages who are being respectively hand-fed, partially breast-fed, and entirely breast-fed. This assumption is open to the objection of the paucity and partiality of the number investigated. But otherwise I think it may be accepted, and this method of inquiry has one advantage in affording the observer an opportunity of inquiring into the effects of hand feeding on the living. The figures are thus used:—

The chance of a hand-fed child dying in the first month of life of summer diarrhœa is to that of a child partially suckled as $\frac{9}{2} \times \frac{23}{34}$—i.e., 3 to 1.

In the second month of life the chance is $\frac{27}{7} \times \frac{23}{36} =$ over 2 to 1.

In the third month	$9 \times \frac{45}{46}$	Nearly 9	to 1.
In the fourth month	$\frac{34}{10} \times \frac{69}{53}$	Over 4	to 1.
In the fifth month	$\frac{20}{8} \times \frac{77}{54}$	,, 3·5	to 1.
In the sixth month	$\frac{5}{1} \times \frac{95}{52}$	,, 9	to 1.
In the seventh month	$\frac{23}{7} \times \frac{163}{54}$	,, 10	to 1.
In the eighth month	$\frac{16}{5} \times \frac{172}{55}$	,, 10	to 1.
In the ninth month...	$\frac{21}{5} \times \frac{189}{53}$	Nearly 15	to 1.
In the tenth month...	$\frac{24}{6} \times \frac{196}{31}$	,, 13	to 1.
In the eleventh month	$\frac{25}{4} \times \frac{194}{67}$	,, 18	to 1.
In the twelfth month	$\frac{15}{6} \times \frac{184}{73}$	,, 6	to 1.

Now the mere statement of these figures shows that there is something very incomplete about the facts obtained, and points to the necessity for a much more extended and rigorous inquiry in future. If in the same way we compare the chances of dying of partially-suckled children compared with those entirely breast-fed we find that the numbers are, at the different months of life, as follows:—Under 1 month, 40 to 1; 1 month, 50·5 to 1; 2 months, 8·5 to 1; 3 months, 12·8 to 1; 4 months, 24·7 to 1; and 5 months, 4·7 to 1.

Similarly a comparison between entirely hand-fed and breast-fed children gives the following extraordinary chances:—Under 1 month, 138 to 1; 1 month, 125 to 1; 2 months, 75 to 1; 3 months, 57 to 1; 4 months, 123 to 1; and 5 months, 43 to 1.

The irregularities which occur in these figures are, of course, due to the comparatively small number of deaths in each instance. Curiously enough, the chances which appear too extremely unequal—viz., the last, where hand-fed children are compared with breast-fed children—are precisely those into which the least amount of error enters. Indeed, a partial revision of the inspectors' returns showed that they had over-stated the number of children dying from diarrhœa who were being suckled, and, on the other hand, the number of months lived by children fed on the breast alone is rigorously given. It might be supposed that in a house-to-house visit the infants of out-workers would be overlooked and that the basis of reasoning would be to that extent defective. Such is not the case. It is true that many houses are closed, but the infant has been transferred to the care of a neighbour who is at home. Another source of fallacy would be the overstating of the amount of breast feeding in the early months of life. That, however, is not the case so far as the population chosen was concerned, because in the early months of life the inspectors' inquiries agree with those made by Dr. Tonkin and myself in bringing out an altogether unexpected proportion of children fed entirely on the breast. It is true the relative incidence on hand-fed children is greatly in excess of Dr. Hope's results. It does not, therefore, follow that it is so wide of the mark as might at first blush be inferred. We may profitably compare with these figures the following extract from a paper by Mr. William Berry in that number of the *Liverpool Medico-Chirurgical Journal* which contains Dr. Hope's paper—viz., vol. vii., 1887. Quoting from the *Medical Press and Circular*, vol. ii., 1882, pp. 336 and 337, he refers to M. Tarnier as saying:—"Artificial feeding has been tried in Paris with very disastrous results, as may be seen by the following statistics drawn up by M. Bertillon. In 1881 60,856 children were born in Paris, of whom 14,571 were sent away to be nursed, while 42,285 remained in the city. Of the latter number 10,180 died, being a mortality of 22 per cent., while 5202 of the former, nearly one half, died of athrepsy—that is to

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say, bad feeding. Of these 5262, 3057 were fed with a nipple bottle."

Proceeding as above we find that the following are the number of months of life lived by 1000 children inquired into by the sanitary inspectors at the following ages, and under the following conditions of feeding:—

7. Of infants entirely hand-fed:—Under 1 month, 78; 1 month, 96; 2 months, 104; 3 months, 109; 4 months, 113; 5 months, 118; 6 months, 124; 7 months, 120; 8 months, 119; 9 months, 138; 10 months, 154; and 11 months, 161.

8. Of infants partly suckled and partly hand-fed:—Under 1 month, 33; 1 month, 37; 2 months, 32; 3 months, 84; 4 months, 105; 5 months, 106; 6 months, 164; 7 months, 168; 8 months, 173; 9 months, 187; 10 months, 194; and 11 months, 185.

9. Of infants entirely suckled:—Under 1 month, 766; 1 month, 675; 2 months, 627; 3 months, 555; 4 months, 507; 5 months, 456; 6 months, 376; 7 months, 345; 8 months, 297; 9 months, 208; 10 months, 152; and 11 months, 121.

A calculation made from Paragraphs 4, 5, 6, 7, 8, and 9 in the same manner as before gives as follows the chance of a hand-fed child as against a partially suckled child dying from diarrhœa at the undermentioned months of age:—Under 1 month, 1·9 to 1; 1 month, 1·5 to 1; 2 months, 4·5 to 1; 3 months, 2·6 to 1; 4 months, 3·2 to 1; 5 months, 4·5 to 1; 6 months, 4·4 to 1; 7 months, 4·5 to 1; 8 months, 6·1 to 1; 9 months, 5·4 to 1; 10 months, 7·8 to 1; and 11 months, 2·9 to 1.

The relative chance of dying of partially suckled as compared with entirely breast-fed children is similarly at ages in months:—Under 1 month, 46 to 1; 1 month 64 to 1; 2 months, 16 to 1; 3 months, 22 to 1; 4 months, 38·7 to 1; and 5 months, 13 to 1.

Of hand-fed as compared with breast-fed the chances are:—Under 1 month, 88 to 1; 1 month, 95 to 1; 2 months, 72 to 1; 3 months, 58 to 1; 4 months, 123 to 1; and 5 months, 58 to 1.

In considering the part that feeding plays in the causation of diarrhœal mortality we have to allow for various factors. The fatality may be due solely to bacteriological changes in the food stuff and may have no reference to previous conditions in the infant. It may, on the other hand, depend on previous enfeeblement of the child. The unquestionable influence of feeding may in itself be due not merely to bacteriological causes—that is to say, to direct infection—but may largely consist in a weakening of the constitution of the infant by defective assimilation. In the endeavour to deal practically with the terrible fatality from diarrhœa it is just as essential to consider these points as it is in the case of tuberculosis. Now an answer, which in time I hope to make more complete, is forthcoming to both these inquiries. Previous enfeeblement does play a very large part in the production of diarrhœa, whether from specific disease or otherwise. Moreover, the effect of artificial feeding in the production of such enfeeblement is a marked one. And, first, as regards the connexion between fatal diarrhœa and previous bad health this may be succinctly set forth in these figures.

Of the 500 fatal cases in the following at different ages the attacks were not preceded by other illness:—Under 1 month, 12; 1 month, 15; 2 months, 18; 3 months, 14; 4 months, 19; 5 months, 16; 6 months, 13; 7 months, 12; 8 months, 11; 9 months, 22; 10 months, 14; 11 months, 14; 12 months, 9; and over 12 months, 58; total, 247.

If we subtract these figures from the total deaths at different months we find that the following numbers were suffering from previous conditions of bad health when attacked:—Under 1 month, 0; 1 month, 21; 2 months, 25; 3 months, 33; 4 months, 18; 5 months, 22; 6 months, 17; 7 months, 9; 8 months, 16; 9 months, 8; 10 months, 17; 11 months, 7; 12 months, 4; and over 12 months, 56; total, 253.

Amongst the conditions specified are 36 cases of feebleness from birth, 11 of phthisis, and 20 of other illnesses, such as thrush, whooping cough, measles, &c. In 138 instances the mothers ascribed the illness to teething, and the above summary relates almost entirely to the causes to which they ascribed the attack. Of these 138 cases, 53 occur amongst those in which the illness is given as preceded by bad health, and 85 amongst those in which it is described as occurring in previously healthy children. Leaving teething out of account—as to which it may be said that the influence of this condition in producing fatal diarrhœa cannot be dismissed as *nil* if we consider the irritation and distress to which it often gives rise, but, on the other hand, would require a laborious and difficult investigation to determine—we find that rather more than half the infants were in bad health previously to the diarrhœal attack. We must, therefore, admit that fatal diarrhœa is influenced by the previous health of the child.

An answer to the question, Does infant feeding produce a condition of health predisposing to fatal diarrhœa? may, *pro tanto*, be given from Dr. Tonkin's return. But before considering this I here insert a statement which he has made for me of the habits of the people in regard to infant feeding (which might be supplemented by a summary of the inspectors' observations of the manner in which children who died from diarrhœa were being fed), and by tables exhibiting the subsequent history as regards suckling of children fed up to one, two, three months, &c., entirely fed on the breast. Such tables are clearly necessary to furnish us with a complete numerical idea of the extent to which children are fed at the breast.[1] Dr. Tonkin reports as follows on his observation of the habits of mothers in feeding their infants.

"*Infant Feeding.*

"I find that infants at very early ages are fed on dry bread, bread-and-butter, bread-and-milk, on the various patent foods found in the market, on rusks, biscuits, sago, tapioca, arrowroot, baked flour, oatmeal, cornflour, barley, potatoes, beef-tea, mutton-broth, gruel, rice, or on portions of any food which the rest of the family happen to be taking. In one house I saw a five months' old child being fed on haddock. Some mothers have a partiality for bread crusts (called 'tops and bottoms') softened by boiling either in water or milk. Many of these foods are given dry and in their natural state, while others are mixed with water, milk, or gravy. In no instance did I find that the mother's milk was supplemented with cow's milk alone. This latter when used is always in conjunction with some of the articles of diet mentioned above. While the child is being suckled, cow's milk is often avoided both in its pure state and in admixture with solid food, because mothers think that their milk and that of the cow do not agree. I find that all children who attain to ages above eight or nine months without receiving some form of artificial food do so because they refuse to accept any kind of food as long as the mother's milk is available. This also applies to a great number of children who would otherwise be hand-fed at very much earlier periods than is found to be the case. Mothers have various methods of finding the correct time for giving their children some form of solid food, such as when a child holds out its hands to grasp the food which the mother is taking or when a child is able to hold a crust firmly in its hands. The most frequent cause of early hand-feeding—at least by young mothers—is the advice of some aged relative (female) or of some neighbourly old woman. The period at which solid food may be begun is never calculated from a knowledge of what is right. A very prevalent belief is that by the time a child has reached the age of four or five months the mother's milk is not produced in sufficient quantity to satisfy it. If a child is robust the mother thinks that it requires some solid food to maintain its strength, and that it would die of starvation if left on milk alone. Again, if the child is weakly she thinks that solid food is necessary to give it strength. I was told of one child who was weaned when two weeks old. It was then fed on boiled barley without any addition of milk. This child died from diarrhœa when six weeks old. The mother stated that this method of feeding was advised by her medical man. I was often told that medical men had advised early feeding with solid food, which generally was to consist of some patent infants' food or bread-and-milk. Children are often allowed to suckle until they wean themselves, or until the mother again becomes pregnant. Prolonged suckling is often maintained because the mother thinks that she cannot become pregnant as long as she has a child at the breast. There is just as much ignorance of the correct time for weaning as there is of the correct time for feeding. I found one mother who suckled her child for twenty-one months and weaned it on the day she was confined of a second child. I find that the incidence of rickets and other constitutional diseases is entirely amongst the artificially fed children, even when this is in conjunction with the mother's milk. Undoubtedly all the most robust

[1] These are not inserted, as they are implicitly contained in the statements showing the number of months of life lived under different conditions of feeding.

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of the children I saw are such as attain ages above nine months without having received any form of artificial food. I find that most mothers are perfectly ignorant of the fact that milk alone is the natural food of children under twelve months. In the case of many of the women whom I saw, this ignorance combined with prejudice and the fact that they have seen fine artificially fed children, made it almost impossible to instil into them a knowledge of the best mode of feeding their infants. All these remarks apply to the very poor as well as to the educated and better classes."

Summary of Return on Infant Feeding.

Of the 400 children in his return, Dr. Tonkin found that only 32 had been entirely hand-fed; of these, 14 had died at the following ages and from the following specified causes:—1 month, from "wasting"; 5 months, from pneumonia; 8 months, from "wasting"; 2 months, from "wasting"; 21 months, from phthisis; 13 months, from diarrhœa; 5 months, from diarrhœa, 14 months, from pneumonia; 5 months, from consumption of the bowels; 6 months, from consumption of the bowels; 2 months, from inflammation of the bowels; 4 months, cause unknown; 4 months, cause unknown; and 4 months, from consumption of the bowels. The following conditions of bad health were noted in the remainder at the ages given:—25 months, rickets; 22 months, rickets and bronchitis; 29 months, rickets; 30 months, rickets; 24 months, rickets; 11 months, phthisis; 24 months, rickets; and 18 months, rickets. Thus 8 out of the 18 survivors were in bad health.

Of children fed entirely on the breast up to the time of his visit, or who had died, he came across the following:—Under 1 month, 0; 1 month, 12; 2 months, 9; 3 months, 4; 4 months, 3; 5 months, 7; 6 months, 4; 7 months, 1; 8 months, 2; 9 months, 1; 10 months, 1; 11 months, 1; 12 months, 1; and over 12 months, 2; total, 50. Of these, 16 died at the following ages from the causes given:—At 1 month, from pneumonia; at 1 month, from bronchitis; at 1 month, from convulsions; at 2 months, from diarrhœa; at 2 months, from convulsions; at 2 months, 3 months, and 3 months respectively, cause not known; at 4 months, from bronchitis; at 5 months and 6 months, from pneumonia; at 7 months, from hydrocephalus; at 9 months, from pneumonia; at 11 months and 15 months from measles; and at 15 months from bronchitis after measles.

I have said that the definition of "breast-fed alone" was very rigorously construed, and to this list should be added the following at the ages specified who were breast-fed alone up to within a month of the age given, and who were still being breast-fed partially, probably almost entirely:—2 months, 3; 3 months, 3; 4 months, 2; 5 months, 2; 6 months, 6; 8 months, 2; and 10 months, 1: total, 19. Of these 2 died: 1 aged 3 months from convulsions; the other aged 6 months also from convulsions. Thus of 69 infants fed practically entirely on the breast 18 died, but in not one of the remainder was any condition of bad health observed. It will also be observed that affections of the bowels figure much more prominently among the causes of death in artificially fed infants, and a scrutiny of these causes makes it probable that a more extended inquiry would show a much greater predominance of mortality amongst that class.

The following were partly hand fed from birth up to the under-mentioned ages:—2 months, 3; 6 months, 1; 7 months, 1; 8 months, 1; 9 months, 2; 11 months, 3; 12 months, 2; and over 12 months, 3; total, 16. Of these 1 aged 2 months was suffering from rickets, and 1 aged 9 months died from eczema.

Of children fed entirely on the breast up to the age of 1 month and not previously mentioned there were 37 at the following ages:—4 months, 2; 5 months, 4; 6 months, 2; 9 months, 1; 10 months, 2; 11 months, 3; 12 months, 3; and over 12 months, 20; total, 37. Of these 22 continued to be partially suckled for some time, and of the 22 1 aged 17 months suffered from rickets, 1 aged 21 months had died from diphtheria, 1 aged 10 months from pneumonia, and 1 aged 6 months from consumption of the bowels. Of the remaining 15, 1 aged 15 months had rickets, as also had 1 aged 12 months; and 4 had died, 1 aged 11 months from diarrhœa, 1 aged 4 months from diarrhœa, 1 aged 10 months from diarrhœa, and 1 aged 6 months from wasting disease. Altogether, of the 37, 3 had rickets and 7 died; 1 infant fed for a fortnight at the breast and then hand fed died when 7 weeks old from diarrhœa.

Of children fed at the breast up to 2 months and not otherwise mentioned there were 32. Of these 26 were partially suckled afterwards, mostly for long periods: of whom 1 aged 24 months, partially breast fed up to 12 months, died from measles; one aged 11 months, partially breast fed up to 3 months, from diarrhœa; and 1 aged 13 months, partially breast fed up to 3 months, from wasting disease. Of the remaining 6, 1 aged 36 months has rickets and 1 aged 14 months died after injury.

Of breast-fed alone up to 3 months, not otherwise mentioned, there were 13, of whom 9 continued to be partially suckled. Of these 1 died aged 10 months from wasting disease. Of the remaining 4, 1 aged 27 months has rickets, 1 aged 9 months died from pneumonia, and 1 aged 8 months died from croup.

Of breast-fed alone up to 4 months, &c., there were 22 of whom 18 continued to be partially suckled. Of these 18, 8 died as follows: at 15 months, 9 months, 11 months, and 12 months respectively from convulsions; at 22 months and 10 months from measles; at 34 months from scarlet fever; and at 24 months from wasting disease. Of the remaining 4 none died.

Of infants entirely breast-fed up to 5 months there were 77, all of whom continued for some time to be partially breast-fed. Of these 11 had died—viz., at 15 months, 13 months, and 20 months respectively from consumption of the bowels: at 11 months, from convulsions; at 13 months, from bronchitis; at 34 months, from pneumonia; at 33 months, ? cause of death; at 33 months, 30 months, and 20 months, from diphtheria; and at 17 months, from diarrhœa. One aged 13 months had rickets.

Of those breast-fed up to 6 months there were 22, all of whom continued to be partially suckled; 3 died—viz., 1 aged 10 months from convulsions; 1 aged 10 months from pneumonia; and 1 aged 15 months from consumption of the bowels.

Of breast-fed up to 7 months there were 19, of whom 3 died: 1, aged 15 months, from convulsions; 1, 9 months, cause unknown; and 1, 12 months, from bronchitis.

Of breast-fed up to 8 months there were 32, of whom 31 continued to be partially suckled. Of the 31, 1 died, aged 21 months, from pneumonia, and the remaining 1, who did not continue to be partially suckled, died, aged 14 months, from diarrhœa.

Of breast-fed up to 9 months there were 12, of whom 11 continued to be partially breast fed. Of the 11, 2 died—1, aged 12 months, from diarrhœa, and 1, aged 18 months, from measles. The remaining 1 died, at the age of 16 months from convulsions.

Of those breast-fed up to 10 months there were 7, of whom 6 continued to be partially breast fed. None died.

Up to 11 months there were 6, all of whom continued to be partially breast-fed. None died.

Of breast-fed up to 12 months there were 2, of whom 1 had ceased to be breast-fed. This one died, at the age of 33 months, from pneumonia.

Of breast-fed for periods of more than 12 months there were 4, none of whom died.

None of the children living, it will be observed, who had been fed on the breast up to 6 months, and who are enumerated in the last eight paragraphs, to the number of 92, were found to be suffering from any unhealthy condition, such as rickets or phthisis. There is thus manifest a predominance of mortality in infants fed artificially, though this is not so marked as we might have expected. But there is no mistaking the influence of hand-feeding in producing conditions of bad health in the survivors. An examination of the causes of death indicates also that these causes are different in the two classes. Hand-fed children are far more liable to death from diarrhœa and tuberculosis, as might be expected. It is observable—probably quite accidentally—how much more fatal measles is in sucklings than among hand-fed children.

Connexion of Fatal Summer Diarrhœa with Fouling of the Ground.

As regards the concurrence of fatal summer diarrhœa and marked insanitary conditions in or about the houses the figures show that this is unmistakable. Anyone, however, who has had much experience of practice must be aware that the connexion between diarrhœa and such conditions is by no means so intimate, and that, in a very large number of instances indeed, severe attacks of diarrhœa occur where no discoverable insanitary conditions exist. But it looks as though some tie holds together fatal diarrhœa and such

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insanitary conditions. So far as the inspectors' observations extend, the most intimate relation is that between fouling of the ground and fatal diarrhœa. Out of 500 deaths, in 422 the condition of the privy was noted. Amongst these 176 pails were used not observed to be defective, though in many of these I have no doubt that the ground was wet with urine. In 60 more no defect was noted, though the closet was against the house wall. In 44 the pail closet was defective, and the ground was consequently soaked, though the closet was not against the wall of the house. In 42 the pail closet was against the wall of the house and defective, so that the ground and walls were both soaked with foul liquid. In all there were 322 pail closets, of which 86 were noted to be defective—over one-quarter, that is, were in such a state that the ground was fouled. Of deaths in houses provided with middens there were 93, of which 20, or over one-fifth, were against the walls of houses. Of water-closets there were altogether 33. When I add that the middens are not in any way constructed so as to prevent soakage into the soil, and that there are only about six times as many pails as middens, the mere statement is sufficient to show how disastrous such a condition of things is and must be.

It is obvious that defective ventilation must add much to the deleterious effect of the soil fouled to the extent just stated. It is therefore of interest to note in what proportion of the cases the space at the back of the houses is small. We find that in 49 of the cases in which the closet is defective or the privy is a midden, the yard is small, and in 51 more it is both small and confined. In addition there are 79 instances in which the back yard is small, and 40 more in which it is both small and confined. In 25 out of the 79 cases the pail closet abuts on the house, and the same is the case with 17 out of the 40. As I have already stated, even when no record is made to that effect it is safe to assume that in a large number of these cases the ground is fouled. Thus, in 219 instances the ventilation at the back of the houses is defective. In a number of other cases the yard flags are broken, and the ground is in that way exposed to pollution.

Enough, therefore, has been stated to suggest that an intimate relation exists between the incidence of fatal summer diarrhœa in Manchester and the condition of the soil. The returns made by the inspectors do not show any such close connexion between insanitary internal conditions and this disease.

I do not propose to use this analysis further at present, although there are other points in connexion with the disease which it helps to elucidate, or at the least to supply hints in regard to, but will content myself with pointing out that there are two points at which the link of causation may be successfully broken by sufficient care—viz., the polluted ground near houses and the contaminated food which infants receive.

To resume, this paper offers a small and imperfect contribution (1) to the direction in which bacteriological investigation is most likely to be of value, and (2) to the way in which a sufficiently extensive house-to-house inquiry into the manner of feeding children not too old for the memory of the parents to have become dim with respect to particulars, may be rendered useful, not only in tracing the effects of infant feeding, but also, by a little device, in forming a basis for the precise estimate of the effects of feeding in regard to any particular disease. I propose, however, to attack the subject as soon as possible in a different and more complete fashion.

Manchester.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, MARYLEBONE.—The annual meeting of the governors and subscribers of this charity was held on Monday, at the hospital, Dr. G. Bernard Brodie presiding. The committee reported that more patients had been relieved during 1895 than in any previous year since the hospital was founded in 1753, 1124 patients being treated in the hospital and 1370 at their own homes. The income amounted to £4530 0*s.* 11*d.*, but the expenditure was £5091 6*s.* 2*d.*, thus causing a deficit of £561 5*s.* 3*d.* on the year's working. An urgent appeal was made to meet this deficit, new annual subscriptions being especially solicited. Additional support was also much needed for the convalescent home at Kilburn. It was resolved to proceed with some necessary alterations and improvements to the hospital building.

NOTE ON THE

VENOUS MURMUR AS HEARD IN THE CHEST: A PRACTICAL POINT.

BY HARRINGTON SAINSBURY, M.D., F.R.C.P. LOND.,
PHYSICIAN TO THE VICTORIA PARK HOSPITAL FOR CHEST DISEASES AND TO THE ROYAL FREE HOSPITAL.

ONE of the most striking facts in connexion with the familiar venous hum of the root of the neck is the sudden disappearance of the bruit when the stethoscope is removed from the interval between the two heads of attachment of the sterno-mastoid and is placed over the sterno-clavicular joint. This want of conduction from the neck into the chest, even through so small an interval, is the more remarkable on account of the loudness which so often characterises this murmur, and it has furnished one of the arguments in favour of the manufacture of the bruit by the pressure of the stethoscope on the unprotected vein. It will not be necessary to reopen this question, for though without doubt much of the intensity of the neck murmur is factitious, yet that it is not wholly so we have absolute proof in those occasional cases in which a venous hum is conducted into or manufactured within the chest. To these cases I would now draw attention. The occurrence of venous murmurs over the site of the innominate veins and of the superior vena cava is well recognised. Walshe[1] places them in the fifth place in the order of frequency, but he makes no statement as to the percentage of cases in which they are heard. Guttmann[2] likewise, whilst recording their existence, says nothing as to frequency. On the other hand, Weil[3] states that of 600 persons examined only five showed a venous hum in the innominate veins, and that in the same five there was a murmur over the superior vena cava. My attention to this question has arisen in the course of a number of examinations of children for admission into an orphanage school. The routine examination of the chest in these cases has discovered in not a few a bruit at the base of the heart, most frequently in the aortic area or thereabouts, which investigation has clearly shown to be venous. The subject has thus been approached from the heart side, and it is this which, in my opinion, gives it practical importance.

Frequency of occurrence.—In children, according to my experience, the murmur in some degree is very common. Thus in 100 consecutive cases I have notes of its presence in thirty-four—i.e., a proportion of one in three. The murmur in these cases has varied between the limits of an obtrusive buzz or hum, not to be overlooked, and a faint, sometimes very faint, ground tone, which has certainly to be sought for and which might easily be overlooked. I do not consider that 100 cases form at all a sufficient number to establish a percentage proportion, for, as is so often noticed, many of the cases came in runs, and I give the actual numbers as a mere statement of fact to show at least that the thoracic venous bruit is not a rare event. It will be borne in mind that these statements refer to children between the ages of six and eleven years, and, it should be added, orphans, many coming of a phthisical stock, with perhaps a larger proportion than normal who would rank as delicate, and possibly an average chest development which would be slightly deficient; at the same time these children were none of them subjects of disease. The relative frequency with which, I am sure, this murmur will be found to obtain in children will be explained by the thinness of the tegumentary coverings in childhood and by the undeveloped state of the chest. Of the total number of cases in the majority the bruit was faint. In adults I have not examined so systematically, but have met with the murmur occasionally in chlorotic women.

Locality.—The bruit was heard along the right border of the sternum from the sterno-clavicular joint downwards as far as the second rib cartilage, sometimes also as far as the upper border of the third rib cartilage; diagrammatically it may be represented in position and in intensity relatively to the murmur at the root of the neck, as shown.

[1] Diseases of the Heart, fourth edition, 1873, p. 141.
[2] Lehrbuch der Klinischen Diagnose, fourth edition, 1881.
[3] Die Auscultation der Arterien und Venen, 1875, p. 131.
[4] Henoch (Kinderkrankheiten, fourth edition, 1889, p. 736) says under Anæmia, that the venous bruit of the neck is occasionally (bisweilen) heard at the uppermost part of the right sternal border, but a little further on he adds, "I have never detected an unusual bruit in the region of the heart itself" (Abnorme Geräusche am Herzen selbst, konnte ich nie wahrnehmen)

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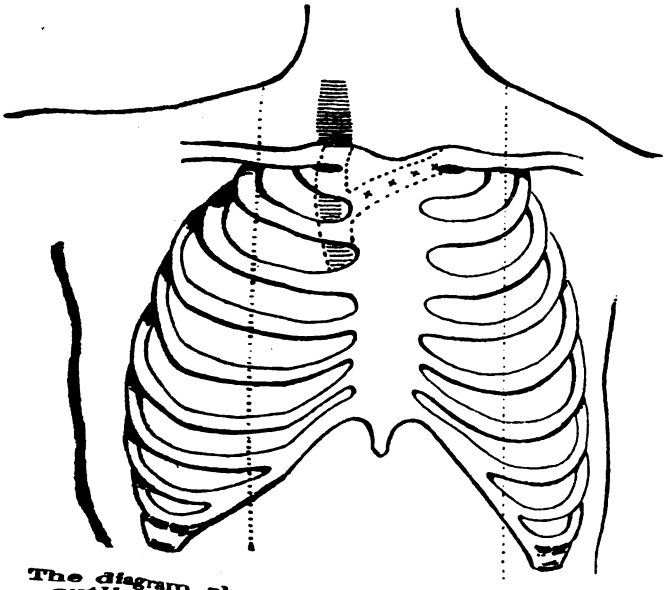
Weil points out that as the left innominate vein lies almost transversely beneath the manubrium sterni to the first right intercostal space, where it unites with the right innominate to form the superior vena cava, the bruit in the left vein must be listened for over the manubrium sterni. I cannot say that I have done this, but have limited my attention almost exclusively to the murmur heard along the right sternal border.

Character.—The character or quality of the bruit is that of a continuous, low-pitched buzz or hum; but, like the murmur in the neck, it often shows systolic and diastolic



The diagram shows the innominate veins and superior cava outlined by dots. The crosses in the left innominate indicate the line along which auscultation of this vein should be practised. The depth of shading in the course of the internal jugular and thoracic veins is intended to mark the degree of loudness of the bruit.

exacerbations corresponding with the accelerations in the current, which attend auricular and then ventricular diastole. This subject has been already dealt with fully in a paper by Dr. Ringer and myself on Pulsations and Murmurs in the Veins of the Neck.[5] Sometimes the murmur has appeared almost entirely diastolic, an observation which would be explained by some as due to the preponderating force of ventricular aspiration. Of the character of the bruit in the five cases observed by Weil this observer says that in three cases it was continuous, but for the most part with diastolic exacerbation; that in two cases it was purely diastolic. In the paper just alluded to, on Pulsations and Murmurs, we drew attention to one characteristic of the murmur in the right internal jugular we compressed the jugular on the left side the murmur grew in force, and this we explained as the result of an increased current in the right vein due to distal venous congestion (raised blood pressure) caused by the obstructed left channel. This same characteristic was observed on several occasions when listening along the right edge of the sternum, and on these occasions it was possible in this way to convert an indefinite into a definite murmur.

Practical importance.—The value which, in my opinion, attaches to the recognition of this bruit belongs to those cases in which it is heard at the base of the heart and so comes into relation with the heart sounds. As far as I have observed, the first sound of the heart does not call for consideration here, probably for the reason that it is less definite and that we are accustomed to recognise and disregard murmurish conditions of this sound. At the most, the blurring of this sound, which the venous hum could effect, would simulate a hæmic bruit. But the occurrence of a bruit in the early part of the diastole immediately upon the closure of the sigmoid valves might lead the unwary astray, and it will have been noted above that this is the time when the venous hum is apt to be either at its loudest or to occur alone. A very little care will suffice to unmask this counterfeit, and the points upon which reliance should be placed are: the low pitch of this venous bruit; its relative want of conduction downwards, whilst it may be followed upwards along the right border of the sternum till it passes above the clavicle into a loud venous hum; the effect of compression of the left internal jugular in accentuating it in certain cases, and the absence of any reaction upon the heart or arteries. As to this last there could, of course, be no question of diagnostic difficulty between this venous modification of the second sound and that of true aortic regurgitation where any degree of hypertrophy and dilatation of the heart and any modification of pulse had resulted. Walshe[6] says: "The diagnosis of venous murmurs turns essentially upon their continuous character, and is excessively easy except where accidental circumstances occur to render that character obscure. *This happens sometimes about the base of the heart anteriorly* ....." He goes on to say, further, of the murmur: "In addition to its peculiar quality, pitch, inconstancy, and by being readily influenced by change of posture as guides to the venous origin of the murmur, its rhythm in respect of the heart's beat will sometimes aid in connecting it with the veins. Thus a *diastolic* murmur at the base (the signs of organic disease at the cardiac orifices being deficient) must be venous according to my experience—at least, a hæmic cardiac murmur of that site and rhythm has never fallen under my notice." The italics in the above are not in the original, but are introduced to show that this careful observer had not failed to recognise the need of differentiation in the case of the venous diastolic murmur at the base of the heart. It will be noted that whilst he states the diagnosis of venous bruits in general to rest upon their continuity, yet he gives to this particular murmur a rhythmic character.

In one case, that of a boy aged seven and a half years, I satisfied myself that a low-pitched early diastolic murmur heard at the sternal end of the second *left* intercostal space was really a venous hum. In this case there was a similar bruit in the second right intercostal space, sternal end, but it was more faint; it was also heard in both first intercostal spaces close to the sternum and in both internal jugulars above the clavicle. There was no disease of the heart and there were no signs of overloading of the right side. The bearing of this case of diastolic venous bruit heard at its loudest in the *pulmonary area* is upon those cases difficult of interpretation, of diastolic murmur in the area of the pulmonary artery to which reference has been made by Balfour[8] and Graham Steell. The former has described such a murmur as of mitral stenotic origin; the latter has discussed the subject under the heading, "The Murmur of High Pressure on the Pulmonary Artery,"[9] and has inferred a true *pulmonary* artery regurgitation by over-distension. In the case just quoted the low pitch of the bruit was pronounced. I would suggest that we should not lose sight of the possible venous origin of some of these murmurs in the pulmonary artery area. The true aortic regurgitant bruit it is true is often heard as loud as or louder in the second left intercostal space than it is in the aortic area, but the bruit retains then its high-pitched character and conforms in all other respects to the behaviour of this bruit of high tension, and the differentiation will be as already given.

To summarise and conclude: the occurrence of the venous murmur in the chest is relatively frequent in children; its site is the right border of the sternum from the sterno-clavicular articulation downwards as far as the second or third cartilage, in rare instances it may probably extend lower; for the most part faint in degree, it possesses the other qualities of venous bruits, including systolic and diastolic augmentations. At the base of the heart it may appear chiefly as a diastolic bruit and attaching itself to the second sound simulate aortic regurgitation. In rare cases it may be louder in the second left space than in the aortic area, and some of the unexplained diastolic bruits heard in this area may be of venous nature. Amongst other characters

[5] THE LANCET, Nov. 28th and Dec. 5th, 1891, and April 2nd and 9th, 1892.

[6] Op. cit., p. 147.

[7] See also a case in a child aged eight years mentioned by Dr. Donkin (Diseases of Childhood, p. 415), in which a bruit exactly simulating "double aortic disease" vanished completely during pressure on the cervical veins.

[8] Diseases of the Heart, second edition, pp. 124 125, and 129; the bruits here noted were in one case at least soft and blowing.

[9] Medical Chronicle, December, 1888.

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of the venous murmur its occasional accentuation on compression of the left internal jugular may be remembered.

Perhaps one should add that auscultation was made throughout with the binaural stethoscope and that the question of the manufacture of a bruit by pressure upon the yielding thorax of childhood did not arise.[10] I have had no opportunity of examining infants as to the presence of this murmur, but Dr. Coutts tells me that he is familiar with a bruit of venous character, both in children and infants, in the upper part of the chest on the right side of the sternum, and he has also reminded me of the bruit heard in infants over the manubrium sterni just below the episternal notch, which can often be brought out by retraction of the head, and has been supposed to be an early sign of bronchial gland enlargement.[11] These cases, however, do not touch the special point which I have been desirous of raising—viz., the venous murmur as heard at the base of the heart and the heart disease which it may simulate.

Welbeck-street, W.

THE EXCRETORY ORIGIN OF CERTAIN FORMS OF IRITIS AND CYCLITIS.

BY SYDNEY STEPHENSON, M.B., F.R.C.S. EDIN.,
OPHTHALMIC SURGEON TO THE NORTH-EASTERN HOSPITAL FOR CHILDREN, SHOREDITCH; SURGEON TO THE OPHTHALMIC SCHOOL, HANWELL, W.

THE practical surgeon knows that most cases of iritis and cyclitis are associated with definite constitutional disorders, such as syphilis, rheumatism, gonorrhœa, or tuberculosis. Whilst this fact is universally admitted few writers appear to have allowed themselves to speculate as to the why and wherefore of the connexion. In the hope of bridging this gap in our knowledge an attempt will be made in the present paper to examine and apply a theory brought forward recently by Dr. David Walsh[1] to account for the origin of certain forms of dermatitis.

The main facts of this "excretory theory" may be thus briefly set forth. Walsh believes that certain inflammatory affections of the skin are due in the first place to local changes set up by the excretion of irritant substances circulating in the blood. In this way he endeavours to account for the eruptions met with in the exanthems, in gout, rheumatism, syphilis, and other constitutional disorders, and for the rashes which now and then follow the employment of such drugs as iodine, bromine, copaiba, antitoxin, and tuberculin. According to him, this hypothesis is supported by many facts. It is positively known that some organic and inorganic products when introduced into the blood may irritate one or several of the channels of exit from the body—for example, the bowel, kidney, or skin. Thus, the virus of gout may attack any outlet, setting up dermatitis, bronchitis, nephritis, or affections of the alimentary canal. The poison of scarlet fever, again, when eliminated by the skin or pharyngeal mucous membrane, gives rise to the characteristic eruption and sore throat, but when thrown off from the system by the kidneys causes nephritis. As regards the dermatitis due to iodine or to bromine, he mentions the significant observation of Adamkiewicz and Guttmann, who found both substances in the discharges from the inflamed skin. Copaiba is usually eliminated from the body by the kidneys and mucous membrane of the lungs, but if for any reason the burden of excretion is shifted to the skin a measle-like eruption will be the result. Similar considerations may be applied to the dermatitis due to belladonna, arsenic, aconite, and the organic extracts. To put the matter shortly, he suggests that these various eruptions take their starting point from acute or chronic excretory irritation of the skin. Lastly, it must be clearly understood that the irritant may be either in the shape of specific organisms or their products, of drugs, or of the chemical products of faulty tissue changes.

For the purposes of argument a first step will be to enquire whether we are justified in regarding the ciliary body as a secretory apparatus. John Vetch[2]—a most acute surgeon—answered that question in the affirmative more than seventy years ago. He noticed that the iris bulged forwards whenever the pupil became blocked by the products of inflammation, from which fact he inferred that the source of the aqueous humour lay behind the iris. He further surmised that the ciliary processes were the anatomical agents concerned with its elaboration. Vetch, however expressly stated that Dr. Young had anticipated him in suggesting that those parts (to use his quaint phrase) "fulfilled the offices of a gland." His view was endorsed by Mackenzie, and since then has been adopted by ophthalmic surgeons generally, although there has been much difference of opinion as to the precise part of the ciliary body concerned in the secretion of the fluid. The recent histological researches of Nicati[3] upon animals, and of E. T. Collins[4] in man, have placed the secretory functions of the ciliary body almost beyond the range of controversy. The last-named observer has shown that finger-like processes may be demonstrated with the microscope in bleached sections of the anterior part of the uveal tract, more especially at the junction of the pars plicata and non-plicata. These pyriform depressions have a central lumen, are lined by epithelial cells, and open towards the interior of the eyeball. They are separated from the vascular plexus of the ciliary region by a thin basement membrane only. They are said to be present in great numbers. Collins claims that they are glands concerned in the elaboration of the aqueous humour and nutrient fluids of the lens and vitreous. In pursuance of this idea, he regards serous iritis (the aquo-capsulitis, keratitis punctata, Descemetitis, or serous uveitis of other writers) as primarily due to catarrhal inflammation of these glands, and he has, moreover, described melanotic cancers of the same structures. It should be noted, however, that these views are not universally accepted. Thus, John Griffith,[5] as the result of his anatomical investigations, finds but few glands in bleached sections of the ciliary body. He is inclined to think that they have nothing to do with the secretion of the aqueous humour, but "that they control the amount of pigment in the eye and regenerate it as nature demands." At the same time he does not deny the secretory function of the ciliary body, but believes, with Vetch, that the ciliary processes alone furnish the aqueous humour. Alt, again, differs in some respects from both the foregoing surgeons. Whilst admitting, on the one hand, that small pigmented processes spring in comparatively large numbers from the outer surface of the uveal layer of the pars ciliaris retinæ, he denies, upon the other, that they are of a glandular nature. According to him, they are "simply pegs of cells projecting outwards from the pigment epithelium layer," and never possess a central lumen such as Collins has described. Alt believes that the ciliary part of the retina and the pigmented epithelium together constitute one large uveal gland by which the aqueous humour is secreted.[6]

Now the iris and the ciliary body are anatomically continuous. They have also a common arterial blood-supply from the long posterior and the anterior ciliary vessels. Broadly they are, furthermore, of similar histological structure. The causes of iritis are, with scarcely an exception, those of cyclitis also. Hence it is comparatively rare to find inflammation strictly confined to either structure. In many instances the process appears to attack both iris and ciliary body simultaneously, or, if that be not the case, to spread from one to the other at a later stage. For present purposes, therefore, these two parts of the uveal tract may be looked upon as together constituting a single structure, and arguments based upon the one will, *mutatis mutandis*, apply to the other.

Syphilis is the commonest cause of irido-cyclitis. Most writers credit the venereal complaint with 50 per cent. of all cases. That estimate, however, is too low, especially if the hereditary disease be taken into account. The proportion probably lies nearer 60 per cent. Rheumatism or gonorrhœa is responsible for most of the other cases, and we shall not be far wrong if we lay 30 per cent. to the score of those ailments. The remaining 10 per cent. is due to various causes, of which tubercle, gout, malarial and other fevers are among the more important. We are not concerned in this place with traumatic or with sympathetic inflammation.

In glancing over the foregoing list one can scarcely fail to note that almost all the ailments named are intimately

[10] Cf. Henoch, op. cit., p. 795.
[11] Eustace Smith, Disease in Children, 1884, pp. 182, 183; Diseases of Childhood, Donkin, pp. 400, 401. Dr. Donkin here calls somewhat in question the significance of this sign.
[1] Annual meeting of the British Medical Association, 1891; Medical Press and Circular, Dec. 27th, 1893.
[2] Practical Treatise on the Diseases of the Eye, p. 105. London, 1820.
[3] Archives d'Ophthalmologie, tome x., p. 431.
[4] Transactions of the Ophthalmological Society, vol. xi., p. 55.
[5] Ophthalmic Review, vol. xiii., p. 246.
[6] American Journal of Ophthalmology, January, 1896.

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associated with, if not actually caused by, micro-organisms. As regards gonorrhœa, tubercle, leprosy, and relapsing fever this fact will be disputed by none. Syphilis, the most common cause of iritis, has for long been thought to be of this nature, probably because of the likeness it presents to the ordinary exanthems. This opinion has been strengthened by the researches of Lustgarten,[7] who has found bacilli not only in the lesions of acquired but also in those of congenital syphilis. They appear to be constantly present, though in small numbers, and require a special method of staining for their successful demonstration. Their existence has been confirmed by independent observers, so that they are now looked upon by many as the causal agents of syphilis. With regard to rheumatism the case is by no means so clear, although the view appears to be gaining ground that it also is due to a specific infection. Hueter seems to have been the first to advance this theory. Newsholme,[8] as the outcome of an extensive statistical study of the disease, has recently stated that acute articular rheumatism must be included among the infective diseases. He has been supported in this view by F. R. Humphreys,[9] who bases his opinion mainly upon the clinical evidences of infectivity observed by him in the course of his practice. If the bacterial origin of acute rheumatism be admitted its truth as applied to the chronic form of arthritis can hardly be denied. Judging from analogy, gout may conceivably be the outcome of infection by an organised ferment, although I know of no actual evidence in support of this suggestion. Lastly, organisms have been described in many fevers—for example, typhoid fever, small-pox, and pneumonia—during recovery from which inflammatory affections of the iris and ciliary body may occur.

Two propositions, then, seem to be clear—first, that most inflammatory affections of the iris and ciliary body are dependent upon a constitutional ailment; and, secondly, that a majority of those ailments are of a bacterial origin. The conclusion follows that most forms of irido-cyclitis result from the action of micro-organisms. An attempt will next be made to show that the immediate cause of these inflammations is to be sought in the vicarious glandular excretion of microbes or their products circulating in the blood or other nutrient fluids of the body.

Twenty years have elapsed since Memorsky[10] proved that chemicals circulating in the blood might find their way into the aqueous humour. He injected a solution of potassium ferrocyanide into the veins, and twenty minutes later was able to demonstrate its existence in the aqueous humour by the perchloride of iron reaction. More recently Ehrlich[11] noted colouration of that liquid after fluorescine had been introduced beneath the skin. These observations prove, therefore, that soluble salts when thrown into the circulation are excreted by the iris and ciliary body. Evidence will be next adduced to show that micro-organisms may be thus got rid of.

The following, reported by Gillet de Grandmont,[12] is a case in point. That surgeon was consulted by a young man convalescent from typhoid fever. The patient, who was thin and weak, had albumin in the urine and a jaundiced hue of the skin. His left eye was affected with iritis; it showed numerous posterior synechiæ and hypopyon, and its vision was so impaired that fingers could be counted with difficulty only at the distance of one metre. Grandmont opened the anterior chamber of the inflamed eye and inoculated a tube of agar-agar with some of the pus. Two days later he obtained a pure culture, which, when examined with the microscope, was found to be made up of the bacilli described by Eberth as present in the spleen, glands, and Peyer's patches of those suffering from typhoid fever. A small quantity of this culture was next injected into the vitreous humour of a rabbit, which, when killed three weeks afterwards, was found to have numerous typhoid fever bacilli in the liver and intestines. The same writer has found streptococci in a culture obtained by inoculating gelatine with the aqueous humour from a case of hyaloiditis (or rather cyclitis) following erysipelas.

It is maintained by some authorities—Leber, for example—that tuberculous inflammation of the iris is always secondary to a tuberculous lesion in some other part of the body. That this view is correct seems to me very probable. We know that most of the cases are met with in young subjects who have a family history of tubercle. Many of them are phthisical or present other signs of active mischief, such as swollen or suppurating glands, bone or joint affections, disease of the middle ear, or "strumous nodules" in the skin. A majority of them succumb sooner or later to tuberculous meningitis. Apart from these considerations tubercle bacilli have been found in the iris by Wadsworth, Treitel, Wagenmann, and Redmond among others, and Weinbaum[13] has succeeded in setting up tuberculous irido-cyclitis by inoculating a rabbit with diseased material taken from the human eye. If we admit that tuberculosis of the iris is secondary to some distant lesion, we are bound to assume that the transference of organisms takes place by means of the blood, and that their presence in the eye is due to a process of excretion by the ciliary body. The small, greyish nodules seen upon the iris are to be explained by supposing that they represent the reaction of the tissues to the irritation set up by the tubercle bacilli.

Primary leprosy of the iris appears to be an exceedingly rare disease, even in countries where lepra is endemic. The characteristic bacilli have, however, been found in the nodulated growths on the iris.

Other instances may be quoted in which micro-organisms have been demonstrated in the anterior chamber. Hermann Snellen,[14] for example, has lately reported the two following cases. 1. A woman aged twenty-eight had marked Descemetitis of the left eye, the lower third of the cornea being speckled over with punctate opacities. Increased tension coming on, sclerotomy was performed. One of the punctate dots escaped with the aqueous humour, and was found to be made up of very short bacilli capable of cultivation on agar-agar. This patient later developed Descemetitis of the other eye, in one of the dots from which identical microbes were demonstrated. 2. A young man had a similar affection of his right eye. The anterior chamber was tapped, a dot examined with the microscope, and found to consist of cells and short bacilli. Snellen concludes from these facts that Descemetitis is a disease *sui generis*, and that "it is due to microbes growing in the anterior chamber, which by their producing toxines cause an irritation of the uveal tract." It is unfortunate that he gives no information as to the cause of these interesting cases, and, further, that he appears to have made no attempt to identify the bacilli. It seems to me that their etiology would be better explained by assuming that both were due to some constitutional condition of microbic nature, and that the organisms found in the anterior chamber represented an excretion of the virus by the ciliary body.

Micro-organisms, then, have been found in iritis associated with typhoid fever, erysipelas, tubercle, and leprosy. An endeavour will now be made to show that their existence in other forms of iritis due to infective disease may be predicted with a fair amount of confidence.

Iritis is not infrequently met with in those suffering from gonorrhœa. The inflammation is essentially chronic and evinces a great tendency to relapse. Its subjects are usually between twenty and forty years of age; they are pale and weakly, and often inherit a gouty or rheumatic diathesis. They are liable to renewed attacks of iritis whenever they contract gonorrhœa. The inflammation of the eye is almost invariably associated with, or preceded by, chronic swelling of certain joints—for example, the knee, hip, ankle, elbow, or those of the carpus or tarsus. These articular affections may now and again be replaced by sciatica or other painful conditions of the peripheral nerves. Now it is a singular fact that this blennorrhagic iritis arises at precisely the same period as gonorrheal arthritis—that is to say, after the symptoms of acute gonorrhœa have yielded to a gleety discharge from the urethra. Moreover, inflammation of other serous membranes has been noted as arising during the same period. Mackenzie[15] many years ago mentioned the case of a patient in whom the virus seemed to produce chronic peritonitis, and of another who died from inflammation of all the internal serous membranes. Mazza saw pleurisy, pericarditis, and endocarditis, and polyarthritis during an attack of gonorrhœa. In the effusion from the pleural cavity he found organisms

[7] Die Syphilisbacillen, Wien, 1885.
[8] THE LANCET, March 9th and 16th, 1895.
[9] Medical Press and Circular, Nov. 6th, 1895.
[10] Graefe's Archiv, 1865.
[11] Deutsche Medicinische Wochenschrift, 1882.
[12] Archives d'Ophthalmologie, 1892, p. 623.
[13] Archiv für Augenheilkunde, January, 1893.
[14] Ophthalmic Review, 1894, p. 269.
[15] Practical Treatise on the Diseases of the Eye, London, 1854, p. 555.

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that were identical with Neisser's gonococcus. Bordoni-Uffreduzzi[16] has described multiple arthritis during gonorrhœa. Fluid taken from a joint was found to contain the characteristic organisms, which, after cultivation, were inoculated into the urethra of a young and healthy man. A typical attack of gonorrhœa was the result, and gonococci were demonstrated in the discharge. So far the genital tract has been the starting point of these various inflammations, but that is by no means essential. In 1881 Poncet[17] noted swelling of the knees and other joints after gonorrhœal pus had been applied to an eye with pannus. Four years later it was shown by Clement Lucas[18] that arthritis might develop in infants with purulent ophthalmia—a disease that is due, of course, to direct inoculation of the conjunctiva with pus containing gonococci. He narrated three instances of the kind. His observations have been confirmed by Fendick,[19] Debierre, Saswornitzky, and Darier, and I have myself seen such cases. Deutschmann[20] noticed acute inflammation of the knee in a child three weeks after purulent ophthalmia. He found typical gonococci not only in the conjunctival secretion, but also in the fluid obtained from the knee-joint by puncture. Haushalter has recently reported a similar case.[21] These facts admit of but one explanation—namely, that under certain conditions the gonococcus is able to find its way into the blood, from which it is excreted by the synovial and serous membranes. This vicarious excretion sets up a corresponding inflammation. We should therefore expect to find organisms in the anterior chamber, but, as far as I know, nobody has yet looked for them in that position.

All the facts at disposal seem to indicate that syphilitic iritis is due to the local presence of microbes. Thus, the ordinary form of the disease appears as an early secondary symptom—that is to say, during the time when the specific virus is diffusing itself by means of the blood throughout the entire economy. The severity of the iritis, moreover, appears to vary directly with the intensity of the other syphilitic manifestations. Nodular growths, or condylomata, of the iris are probably present in every case. They are strongly suggestive of local irritation, such as might very well be set up by bacilli deposited from the aqueous humour. It is a significant fact that the Descemetitis of hereditary syphilis, which is sometimes observed about the age of puberty, may be preceded by, or associated with, synovitis of the knee or other large joints. This complication might be reasonably explained on the grounds of attempted excretion by the synovial membrane, while from the analogy with gonorrhœa bacilli should be found in the joint effusion and probably, also, in the aqueous humour of the inflamed eye.

It is still uncertain whether rheumatism should or should not be included among the microbic diseases. It is, therefore, impossible yet awhile to make any definite statement as to the etiology of the iritis associated with that disease.[22] At the same time, it is thinkable that the excretion by the ciliary body of an irritant like lactic acid—which is generally admitted to be present in the blood of rheumatic patients—may be enough to set up the processes of inflammation. It is, of course, possible that gouty irido-cyclitis may be the outcome of a similar glandular irritation by uric acid.

Affections of the iris and ciliary body are by no means uncommon in relapsing fever. Trompetter[23] met with them in 6 per cent. of his cases. It seems reasonable to suppose that the primary cause of these inflammations also is to be sought in a direct excretion of the spirilla Obermeieri by the glandular part of the uveal tract.

Some instances of the metastatic irido-cyclitis met with in the puerperal state and pyæmia lend themselves to a similar explanation. Organisms from a septic focus gain admission to the blood, where they thrive and multiply. Nature attempts to throw them off by various excretory channels—for example, the skin, the kidneys, the serous and synovial membranes, and the anterior part of the uveal tract. In the first case, transient erythema is observed; in the second, nephritis; in the third, peritonitis, pleurisy, pericarditis, or synovitis; and in the last, irido-cyclitis. This primary uveal mischief may be attended by numerous secondary complications, due mainly to (*a*) the development of other micro-organisms, and (*b*) tissue changes, acute or chronic. It is obvious that this explanation does not cover the whole of the ground. It accounts for those cases only where inflammation begins in the iris and ciliary body. The conditions are wholly different when those structures are involved secondarily to the choroid and retina. It has been shown conclusively that such cases are due to septic emboli deposited in the vessels of those parts by the blood current, so that their pathology is similar to that of pyæmic abscesses in the subcutaneous tissues and viscera.

Grandclément[24] has attempted to draw a distinction between inflammation of the stroma of the iris and of its posterior pigmented layer or uvea. The latter affection he calls uveitic iritis, and he describes it as marked by an insidious and relapsing course, a gradual formation of posterior synechiæ, and a progressive failure of sight. It is met with chiefly in women between the ages of thirty and fifty years, who show no signs of rheumatism or syphilis. Grandclément suggests that it is due to a kind of auto-intoxication, the result of an inadequate excretion of urine which he has noted in several of his patients. He surmises that the ptomaines thus pent up in the system seek the *locus minoris resistentiæ*, which in this particular case happens to be the eye. Professor de Lapersonne[25] has suggested a somewhat similar etiology for iritis. He believes that many instances of relapsing inflammation of the iris are due to the absorption of septic products (ptomaines or toxalbumens) from the alimentary canal.

Many patients with irido-cyclitis tell us that the disease was set up by exposure to cold, strain, or some slight injury to the eye. Bronner[26] has given particulars of three cases in which concussion of the eyeball was speedily followed by local syphilitic disease. The same sort of thing is not unknown in acute pneumonia and in other infectious maladies. So far as the eye is concerned, these injuries, by increasing the vascular supply, may be assumed to increase the functional activity of the glandular apparatus and hence to determine the excretion of organisms.

Conclusions.—1. Most inflammatory affections of the iris and ciliary body are the outcome of constitutional ailments, which are in turn due to microbic infection. 2. In certain forms of irido-cyclitis specific micro-organisms have been found in the contents of the anterior chamber. 3. There exist good grounds for believing the proximate cause of all cases of endogenous irido-cyclitis to be the excretion by the ciliary body of micro-organisms or their products. 4. Therefore, bacteriological examination of the aqueous humour might furnish a ready means of detecting an organism in those maladies thought to be of infectious nature, such as rheumatism. It might also lead to a correct conclusion as to the cause of doubtful cases of irido-cyclitis.

Welbeck-street, W.

[16] Archives Italiennes de Biologie, tome xxii., 1895, p. 154.
[17] Archives d'Ophthalmologie, 1881, tome i., p. 213.
[18] Brit. Med. Jour., Feb. 28th, July 11th, and Oct. 10th, 1885.
[19] Ibid., Oct. 31st, 1885.
[20] Graefe's Archiv für Ophthalmologie, xxxvi., 1., p. 109.
[21] Semaine Médicale, 1895, tome xv., p. 382.
[22] Since the above was written I find that Ahlström has twice succeeded in setting up iritis in rabbits by inoculating the anterior chamber with a piece of iris taken from a case of rheumatic iritis. No such result followed when the iris was derived from a non-septic source, such as an eye with cataract. Micro-organisms were not recognised.—Beiträge zur Augenheilkunde, Band xxi., p. 36.
[23] Klinische Monatsschrift für Augenheilkunde, 1880.
[24] Bulletins de la Société Française d'Ophtalmologie, 1891, p. 45.
[25] Le Bulletin Médical, Feb. 21st, 1892.
[26] Transactions of the Ophthalmological Society, vol. x., p. 199.

A CASE OF BILATERAL PARALYSIS OF THE ABDUCTORS OF THE VOCAL CORDS DUE TO SYPHILIS.

BY J. L. BUNCH, M.D., B.SC. LOND.,
LATE HOUSE SURGEON, UNIVERSITY COLLEGE HOSPITAL.

BILATERAL paralysis of the abductors of the vocal cords is one of the most unusual affections of innervation to which the larynx is subject, and inasmuch as the number of cases placed on record is comparatively small every additional case is necessarily of considerable interest. Such paralysis may be due to a lesion either myelopathic, neuropathic, or myopathic in origin.

When myelopathic the lesion is situated in the medulla and involves the abductor centre, the nuclei of the recurrent laryngeal nerves, or the efferent fibres from those centres before they leave the medulla, and may be due to vascular occlusion or hæmorrhage, new growths, or degenerations (frequently syphilitic). Onodi[1] showed experimentally in

[1] Onodi: Revue de Laryngologie, 1892.

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dogs that the brachial plexus supplies some motor fibres to the larynx which pass upwards in the cervical sympathetic, and he saw reason to think that this is also true in man, in which case paralysis of the abductors might be due to a lesion in the cervical part of the cord. As to whether abductor paralysis in man can be due to lesions higher up—either of the cerebral cortex or of the fibres connecting the cortex with the medulla—we have insufficient grounds for deciding, but it seems highly probable that these medullary centres are governed by still higher centres, though of themselves usually capable of controlling the abductor mechanism of the vocal cords. It has, indeed, been shown by Mr. Horsley and Dr. Semon[2] that stimulation of the cortex in the lower part of the ascending frontal convolution in the macaque monkey causes adduction of the cords, and abduction of the cords has been similarly obtained in the carnivora. Moreover, cortical stimulation near the centre for phonation causes exaggeration of the laryngeal respiratory movements. It seems hopeless to expect much assistance from clinical observation, for there is every reason to think that the cortical representation is bilateral, and that the lesion must also be bilateral in order to produce abductor paralysis. Such cases are, of course, clinically very rare. It is well known that functional disturbance of the cortical centres may cause laryngeal paralysis, but this is nearly always a paralysis of the adductors, not of the abductors of the larynx. The fibres connecting these cortical centres with the medulla have been shown to pass through the internal capsule. Cases of so-called functional abductor paralysis have, however, been described, among others, by Biermer, Burow,[3] and Schreiber,[4] and Michael[5] of Hamburg records a rather doubtful case for which tracheotomy was performed.

When neuropathic in origin bilateral abductor paralysis must be due to involvement of both recurrent laryngeals either directly or by pressure of aneurysm, mediastinal tumour, enlarged thyroid gland, &c. Such morbid conditions can, when present, usually be made out by physical examination, and the diagnosis is then greatly simplified. Cases have been recorded which seem to point to a picking out of the abductor fibres in cases of more or less general peripheral neuritis. Rosenbach first enunciated, and Dr. Semon[6] first demonstrated, the fact that in organic disease there is a proclivity of the abductors of the larynx to fail before the adductors, and the position which Dr. Risien Russell[7] has shown the abductor fibres to occupy in the recurrent laryngeal—i.e., on the inner side of the nerve, nearer the trachea—may in some cases account for this. It is, however, noteworthy that whereas the abductors are affected in organic disease, it is the adductors which (in the adult) overpower the abductors when the whole side of the larynx is caused to contract by electrical stimulation of the cut recurrent laryngeal nerve, the muscles subserving phonation as opposed to those subserving articulation (Semon, Onodi, and Donaldson).

Abductor paralysis of myopathic origin has been described by Fischer,[8] Burow, Mackenzie, and others, but short of a post-mortem examination such cases are not possible of diagnosis.

The following is a case of bilateral abductor paralysis which necessitated immediate tracheotomy. A man aged thirty-six years was admitted to University College Hospital on June 23rd, 1895. The patient was engaged in stable work daily from 4 A.M. to 6 P.M. He had had syphilis more than a year previously. In November, 1894, when getting up one morning he had a fit of coughing and found great difficulty in getting his breath, his wife being obliged to hold him up in a sitting posture. He became blue in the face, and for an hour the dyspnœa continued, but gradually diminished and the colour improved. He went to work next day. A fortnight afterwards he had a similar attack when in the street, which did not last so long. In January, 1895, he had another attack with the same symptoms, which lasted about an hour, but he continued his work next day. On June 23rd, between 5 and 6 P.M., he was found lying insensible in the stable, and was immediately brought to University College Hospital. When admitted the patient, who was a strong muscular man, showed extreme cyanosis, and there was a considerable amount of recession of the lower part of the chest on inspiration. He was unconscious, and the pupils were somewhat dilated, but equal. Knee-jerks were present. The pulse was 80, of good tension, compressible and regular in time and force. Mr. Horsley, who happened to be in the hospital, examined the throat and upper part of the larynx with his forefinger, but could detect no foreign body. On examining the larynx with a laryngoscope the upper opening of the larynx, the aryteno-epiglottidean folds, and the vocal cords were seen to be congested and swollen, and the opening of the glottis contracted to a mere chink. On inspiration the vocal cords were drawn closely together, on expiration they separated to a very slight degree. The following is Mr. Horsley's description: "Whole interior of larynx was intensely congested. The arytenoids were separated by two pink swellings which met in the middle line. The mucous membrane on the processus vocales was deep red in colour and nodular in its swelling. On inspiration both cords were sucked violently together and remained so. On expiration there was a slight opening of the glottis. Through this narrow slit the sub-glottic region appeared to be free." Some urine was drawn off with a catheter, but no albumin was present. Under Mr. Horsley's direction I performed tracheotomy immediately, but just before the trachea was opened the patient stopped breathing, his pulse became almost imperceptible, and his face pallid. The trachea was promptly opened and artificial respiration performed. After a few minutes the patient began to breathe naturally and a tracheotomy tube was inserted. The pulse improved considerably and the colour became more natural, so after the dressings had been applied he was removed to Mr. Barker's ward. On the next morning, June 24th, the patient was breathing quietly and the swelling of the epiglottis had almost disappeared and that of the aryteno-epiglottidean folds was less, but the arytenoids remained much swollen. The right vocal cord moved very feebly outwards on inspiration, the left hardly at all. The free edge of both vocal cords was irregular and ulcerated, more especially the right, and the surface somewhat redder than natural. A mucous patch was present at the right angle of the mouth, the palms of the hands were fissured, and there was superficial ulceration of the scrotum. The following was ordered to be given three times a day: Potassii iodidum, gr. v.; sodii iodidum, gr. v.; ammonii iodidum, gr. v.; acidum hydrobromicum dilutum, m v.; infusum gentianæ compositum, ʒ i. Unguentum hydrargyri (ʒ i.) was also ordered to be rubbed into the palms of the hands every day. On the 26th a rubber tracheotomy tube was substituted for the silver one, and on the 29th there was no swelling of the rima glottidis present, but the edges of the cords were still ulcerated. His breathing was perfectly easy. The rubber tube was removed and the wound covered. He could then speak well but hoarsely. On July 18th the tracheotomy wound had healed. The abduction of cords was much more free and the movements on vocalisation were good, but the voice was hoarse. The patient's hands were nearly well. He was discharged from the hospital, but ordered to continue the iodide. He was seen again on Oct. 7th, when the free edges of the vocal cords were still irregular, but the movements were much improved. He was ordered to continue the iodide.

This case is of interest from the point of view of the history and of the diagnosis. The final acute attack which necessitated tracheotomy had been preceded by three others during the previous eight months, from all of which the patient recovered without surgical interference. In the intervals he experienced no uneasiness, no dyspnœa even on exertion, to which his work rendered him peculiarly liable. His voice was said to be natural. The onset of the acute attack was in each case very rapid, so rapid, indeed, as to preclude even his calling for assistance. The signs of secondary syphilis were sufficiently obvious when the patient was brought to the hospital, and syphilis was held to be the final cause of the paralysis. Whether an acute inflammation supervening on the more chronic ulceration of the cords could paralyse the abductor muscles directly or reflexly through the medullary centre, or whether there was also an old-standing degeneration of the abductor centre in the medulla, or a recent thrombosis of the vessels supplying this centre, it is difficult to say, and some might point to the sudden onset of unconsciousness as suggesting a cortical lesion. It is, however, held by some authorities that

[2] Horsley and Semon: Philosophical Transactions of the Royal Society, 1892.
[3] Burow: Berliner Klinische Wochenschrift, 1885, p. 593.
[4] Schrieber: Deutsche Medicinische Wochenschrift, 1878, p. 615.
[5] Michael: Wiener Medicinische Presse, Nos. 41-42, 1885.
[6] Semon: Numerous papers; Dr. Semon's views collated in his paper in Virchow's Festschrift.
[7] Risien Russell: Proceedings of the Royal Society, 1892.
[8] Fischer: Wiener Medicinische Wochenschrift, 1886, p. 593.

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occlusion of the glottis may cause vertigo and unconsciousness (Casselberry, Roe), and this would be an adequate explanation. A somewhat similar case has been recorded by Sota y Lastra, in which the trachea was opened when the patient was almost moribund, and artificial respiration was necessary for an hour afterwards. The case was one of syphilitic laryngitis with recurrent suffocative attacks. The patient recovered.

Tracheotomy has of course been done more or less frequently for bilateral abductor paralysis due to syphilis, and cases have been recorded by Carmaggio, Raymond, Wolfenden, Butlin, Taylor, Böcker,[9] and others, but in most cases the syphilis was old-standing and caused stenosis of the trachea, cicatricial contraction of the glottis, or peritracheal enlarged glands pressing on the recurrent laryngeals. In such cases the probable necessity for tracheotomy at some future time has usually been foreseen, and careful watch has been kept on the patient in the interval.

Apart entirely from a syphilitic origin which could be demonstrated, abductor paralysis has from time to time necessitated tracheotomy, and a careful examination of some of the cases recorded as spasm of the larynx renders it probable that these were really cases of abductor paralysis. That the distinction between adductor spasm and abductor paralysis is not always easy is well shown in whooping-cough, in which Dr. Poore has ably advocated the view that the prominent feature is a recurring sudden abductor paralysis.

My thanks are due to Mr. Barker for permission to publish the case.

Gordon-place, W.C.

[9] Carmaggio: Typis Cosmi, 1890; Raymond: Gazette des Hôpitaux, 1890; Wolfenden: Journal of Laryngology, 1892, p. 292; Butlin: St. Bartholomew's Hospital Reports, 1882; Taylor: Guy's Hospital Reports, 1883; Böcker: Deutsche Medicinische Wochenschrift, 1877.

THE HIGH ALTITUDES OF SOUTH AFRICA: SOME PRACTICAL POINTS IN THEIR AERO-THERAPEUTICS.

BY H. LAING GORDON, M.D. EDIN.

A VARIETY of reasons into which it is unnecessary to enter here have in recent years caused an increasing number of phthisical persons to flock to South Africa. It is apparent that much misapprehension of the powers of the climates of that region exists in both the lay and professional minds of this country, otherwise so many unsuitable cases would not be allowed to go to South Africa. Professional utterances regarding the climate have so far, in England at least, dwelt rather upon its possibilities than upon results achieved. It is to be hoped that some of the leading South African practitioners will publish results and statistics for the benefit of the profession at home; it cannot be said that they have not the material. It may serve a good purpose if one who has had some little experience in one of the high altitude districts of Cape Colony briefly draws attention to some practical points concerning the climate and the cases suitable for treatment by residence there. In doing so I shall rely not only on my own experience, but also upon the opinions of South African medical men as published in the South African medical press.

South Africa possesses several climates, some of which are highly unsuitable for the treatment of phthisis. The following districts are, however, all more or less suitable: (1) the Karroo (Cape Colony), (2) the Orange Free State, (3) the South African Republic, (4) the highlands of Natal, (5) Bechuanaland, and (6) the highlands of Basutoland. The treatment of phthisis has been carried on in the Karroo and the Orange Free State for many years, and these two districts are likely to remain the most popular owing to their comparative accessibility for Europeans. Each of the other districts named has some individual drawback at the same time that it possesses no superior feature from a health point of view. A limited number of subjects—e.g., such as are equal to a hunting expedition in Bechuanaland—may benefit in some of them. For all practical purposes the Karroo and the Orange Free State are sufficient; they possess a climate second to none and a combined area of about 150,000 square miles at an elevation of from 2500 to 6000 feet above the sea level. For detailed information on the climate of these parts I may recommend the "Official Handbook of the Cape and South Africa," wherein an excellent account is given by a Cape Town practitioner. The climate derives its value in aero-therapeutics from (1) the elevation, (2) the extreme dryness of both air and soil, (3) the almost constant and brilliant sunshine, and (4) the pure air. These conditions are available practically anywhere in the two districts, but it is not sufficiently recognised that the effect of the last two at least is greatly, if not entirely, lost to those who spend their time in a village or township.

It has been erroneously stated that phthisis is unknown among the natives (of European descent or aboriginal) in the South African high altitudes. Immunity from tuberculous disease depends in South Africa, as in other elevated regions, upon "the avoidance of overcrowding, in-door life, and insufficient dietary; for in the presence of these no altitude could give immunity."[1] Since European life was thoroughly introduced into South Africa and white and black people have dwelt together in insanitary towns and villages with imported cases of tuberculosis in their midst, and since alcohol and syphilis have ravaged the population unchecked, no class of inhabitants—white, coloured, or black—has escaped from phthisis, even in the most elevated towns. On the other hand, amongst the Boers and dwellers on farms who lead an isolated, open-air life, tuberculous disease is practically unknown in many districts. One district surgeon of fourteen years' experience in his township and district informed me that he attributed the introduction and spread of pulmonary tuberculosis among the native population which he has witnessed there to the fact that the place has within recent years become a resort for European phthisical patients. In the light of modern knowledge of the channels of infection in tuberculosis the following statement by the head of the Colonial Government Veterinary Department is interesting. He writes:—"I beg to inform you that tuberculosis is comparatively rare among farmers' cattle throughout Cape Colony; it is, however, frequently met with among milch cows, more particularly about towns. *In the high districts I have not seen any cases in native-bred cattle*, [the italics are mine] but some cases have been observed in imported cattle, and the circumstances clearly indicated that these animals were affected before they left England." Whatever the up-country towns and villages may have been twenty years ago, undoubtedly the majority are not now free from phthisis.

So long ago as the end of the eighteenth century Dr. Rush of Philadelphia warmly commended "climate" in the treatment of phthisis, but added that it succeeded only when accompanied by "exercise and such conditions as invigorate the powers of mind and body." About the same period Dr. Gordon of Madeira ascribed the inefficacy of that island climate to the difficulty of obtaining exercise owing to the badness of the roads at that time. Much the same views as these are urged to-day on scientific grounds by a leading authority, who in a paper on the value of fresh air in phthisis pithily summarises rational treatment as being that of "fortifying and sustaining the resisting powers of the patient." "Life in the pure air," he says, "judicious exercise, nourishing diet, and such aids as cod-liver oil and tonics have effected more than all the antiseptic treatments put together."[2] It is not unreasonable to point out how much more satisfactorily these desirable conditions are obtained on farms situated on the open veld than in the townships and villages. In common with other practitioners of greater experience than myself I can point to highly encouraging results among those who have lived upon farms at the same time that I have to deplore the steady retrogression of the great majority of those who were confined to a township. At the present day little, if any, attention is paid to sanitation in the average up-country township; to say the least the prevailing conditions are highly favourable to the life of the tubercle bacillus. Refuse is thrown just outside the houses or is lazily deposited on the outskirts, and these same outskirts are also used as a latrine by the natives; short walks for the invalids are therefore somewhat unpleasant. The houses are badly built, draughty and ill-ventilated. No steps are taken to destroy the bacilli emanating from the patients in the hotel or boarding-houses. The stoep (verandah) of the hotel is rendered unpleasant by being scattered over with the

[1] Aero-therapeutics, by Dr. C. Theodore Williams, p. 111.
[2] Dr. C. Theodore Williams: THE LANCET, Nov. 3rd, 1894.

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tubercle-bearing expectoration of many phthisical invalids, and during the hottest part of the day this is diffused over the town by thousands of flies. The air of the streets is laden with the nauseating odour of the ox-dung used as fuel, which also taints the food. If he is unable to take active exercise the patient's day is one monotonous round of gossip on the stoep or in the bar, billiard-room, or club, varied by intervals for temperature-taking and the melancholy eating of meals which are highly indigestible under the circumstances. These conditions prevail to a greater or less extent in all the so-called "health resorts" of South Africa. Kimberley alone may be said to be under anything approaching effective sanitary government, but, in the words of Dr. Lawrence Herman, it is "by no means a suitable climate for invalids." On a Karroo, or Free State farm, the interest lies entirely out of doors; *volens volens* the patient spends his day in the open air. Half a dozen yards from the door he breathes the purest air. He is removed from the conditions which foster the disease germs and from the unhealthy and depressing company of an hotel full of invalids. However thoroughly town-bred he may be the many charms of South African farm-life prove of entrancing interest to him. Day after day is spent in the veld either on horseback or on foot with gun in hand, and he returns to the homestead ready to do healthy justice to the nourishing, if homely, fare. From personal experience I can say that good milk, butter, eggs, and other nourishing food is plentiful on properly selected farms, and is greatly superior to that supplied in the "health resorts." I have not known a patient who, having tried the farm-life, did not prefer it to that in an up-country town. I am strongly of opinion that the real attraction of the Karroo and the Orange Free State lies in the ease with which suitable cases may be isolated (in twos or threes, perhaps) under the most favourable climatic conditions in an environment that encourages, if it does not enforce, habits which "fortify and sustain the resisting powers of the patient." The most suitable cases for treatment under present circumstances are (1) cases of *predisposition* to pulmonary tuberculosis, hereditary or acquired, without actual developed disease; and (2) cases of *incipient phthisis*, particularly in young male adults. The cases of *predisposition*, almost without exception, show rapid and remarkable improvement on farms. The figure fills out, the chest circumference notably increases, and in a few months the patient who arrived pale and delicate-looking assumes the appearance known as "the picture of health." The country offers attractions as a permanent residence for such persons, if they are energetic and provided with reasonable capital. Farming may be learnt and followed as a profession; or, after a time, other occupations may be found in some of the constantly developing new districts. Used in this way South Africa may have a greater future as a preventive of tuberculosis than it ever can have as a curative. By no means all cases of *incipient phthisis* can be expected to be benefited. There should be absolutely no indication of rapid progress or of extension of disease. The lesion should be limited and accompanied by very little or no fever. There should be no complication. The patient should be fond of, and able for, out-of-door exercise, be of a self-reliant and adaptable disposition and not of a nervous or irritable constitution, and be possessed of an average good digestion. Too much stress cannot be laid upon these points. It is a regrettable fact that patients arrive weekly in South Africa in too advanced a state of disease to come under the heading of "suitable cases." These persons find their way to some of the reputed health resorts; their best chance lies under careful systematic supervision, but there is no such provision for them in South Africa. A number live bravely on amidst what must be painful discomforts to them, and ultimately succumb; others return to England in a worse condition than when they left. It is both possible and probable that among these cases there are some which, if systematically cared for, might benefit to a greater or less extent by the climatic conditions. For several years the professional and lay press in Cape Colony have agitated for the establishment of scientifically conducted sanatoria in suitable situations. It is now stated that a certain available fund is to be devoted to the foundation of such an institution at Kimberley. It is probable that if the medical men in the country who have studied the question had been consulted several more suitable sites would have been indicated. Competent authorities generally condemn Kimberley as a resort for any but a very limited number of cases. The proximity of "theatres, clubs, other places of amusement, and the river," held out as an advantage, is not desirable in the eyes of those who wish their patients to be treated by sunshine, pure dry air, and exercise, as well as systematic supervision. The most suitable site for a sanatorium would be on the veld within easy distance of the railway and a township, and protected, as many places are, and the Kimberley district is not, from high winds and dust. Until some such suitable institution is started grave risk is incurred in sending any but the two classes of cases mentioned to the country.

I append a table of cases which came under my observation during the season 1894–5 in one of the Karroo "health resorts"; the number is too small to form a ground for any definite deductions. The township and district are over 4000 feet above sea level; the population of the township is about 1500, and of the entire district about 9000. Many English

Cases.	Number.	Arrested or improved.	No change.	Worse.	Remarks.
Predisposition.	5	5	—	—	4 returned home after an average residence of 7 months and 1 remained permanently; 4 lived on farms and 1 in township.
Hæmoptysis with no definite local lesion.	3	3	—	—	1 lived on farm and 2 travelled about the country; the average residence was 7½ months.
Limited catarrh or consolidation.	9	6	—	—	3 lived on farms, 1 in township and then farm, and 2 in township only; 1 remained permanently; the average residence of the other 5 was 10½ months.
	—	—	—	3	All lived in township; 1 died (intercurrent disease), 1 (neurotic) was sent home, and 1 developed laryngeal trouble and was sent to lower level.
Fibroid phthisis.	2	—	2	—	1 went to lower level and 1 went to the Orange Free State (lost sight of); both lived in township.
More advanced, extensive, or complicated.	9	—	2	—	Both returned home (lost sight of).
	—	—	—	7	1 was sent home (reported greatly improved by good diet and country air), 1 went home (lost sight of), and 5 died in the country, on voyage home, or soon after arrival in England. All lived in township.
Total ...	28	14	4	10	—

farmers receive patients, and posts as tutor or governess on English or Dutch farms are to be had by persons of average education. The winter (May to September) is the season when suitable cases receive most benefit. To derive really permanent benefit patients should remain for a year or two at least. Unfortunately, the majority go out only for the summer (November to March) and hasten home in April or May. The statement that the summer heat is easily tolerated owing to the rarefied air is misleading; the early morning is delicious, and no harm results from sitting out in the refreshing cool of the evening; but from 11 A.M. to 4 P.M. the summer heat is very trying to both the healthy and the invalid, particularly in the Orange Free State and the Kimberley district. The voyage to South Africa is a good one as sea voyages go. Whichever line the patient may select (and they are all much alike) he would do well to carefully choose his ship; the comfort, food, and attention shown to passengers vary with the ships rather than with the lines. Overcrowded mail steamers are to be avoided. On arriving at Cape Town the patient should lose no time in obtaining competent medical advice as to what part of the country he should go to.

Finally, I must urge, as has been often done before by Dr. Eyre of Claremont and Dr. Clarke of Bloemfontein, that South Africa is not a poor man's country. Employment is most difficult for a delicate person to obtain even if master of some trade; while to send a phthisical clerk or shop assistant to the country with, as frequently has happened, only a few pounds in his pocket is, in nine cases out of ten, to send him to a pauper's grave. If this were more widely understood it would not happen that so many young men

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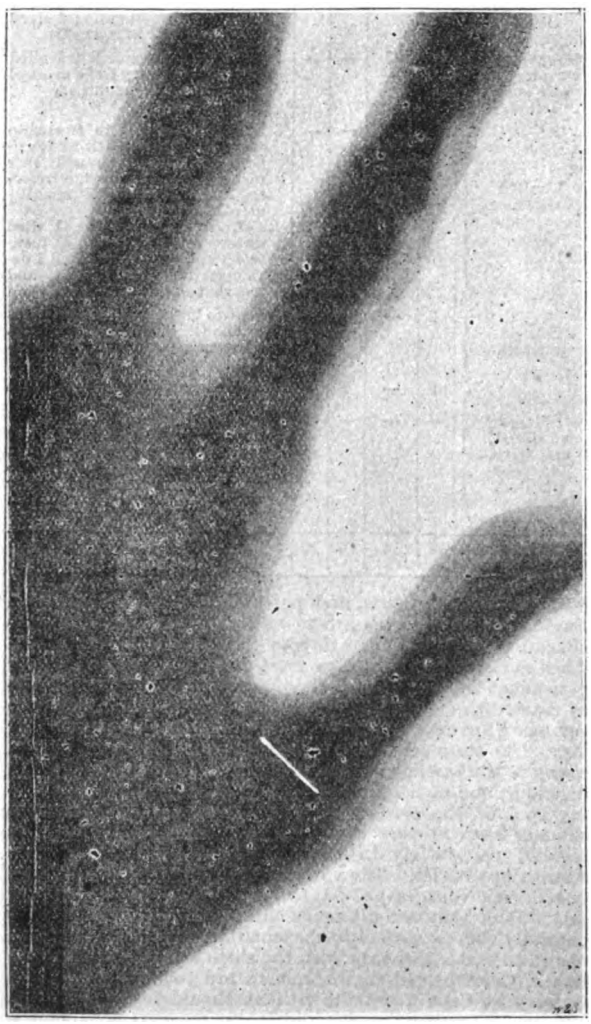
have to be supported in their last days and finally buried by the inhabitants of up-country health resorts six thousand miles from home.

Honor Oak, S.E.

A NEEDLE EXTRACTED FROM THE HAND BY THE ASSISTANCE OF THE ROENTGEN RAYS.

BY W. H. BATTLE, F.R.C.S. ENG.,
ASSISTANT SURGEON TO ST. THOMAS'S HOSPITAL AND TO THE ROYAL FREE HOSPITAL.

A CASE which has recently been under treatment at the Royal Free Hospital gives proof of the occasional usefulness of the new method of photography. A woman aged thirty years had been sent to me on account of pain in the region of the metacarpo-phalangeal joint of the right thumb, which she said was due to the presence of part of a needle which she ran into this part of her hand nine months before. A medical man had failed in an attempt to find the needle three months previously. There was an appearance of slight swelling in the neighbourhood of the joint, considerable tenderness, with some thickening, but no foreign body could be felt. She had difficulty in flexing the thumb and was unable to use the hand properly. The only way in which it could be proved that there was a piece of metal in the hand was either by a special electrical apparatus or by means of the new photography; the latter possessed special advantages, as in the case of a piece of needle it would not only show it if present, but also indicate the direction in which it lay. Mr. Rowland kindly took a photograph of the hand, and discovered the piece of needle lying across the metacarpo-phalangeal joint, but would not say whether on the anterior or posterior aspect of the joint. This was, however, decided by the condition of the part. On Feb. 21st I made an incision in the long axis of the thumb in a line corresponding to the interval between the abductor pollicis and the opponens pollicis, almost down to the joint, and exposed the end of the needle at once, which appeared as a little black spot in granulation tissue. It was readily extracted with dissecting forceps, and was about half an inch long and the eye-end of a fine needle.



The position of the needle having been detected upon the photograph by Mr. Rowland, was painted by him in white for Mr. Battle's better information.

Mansfield-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

SULPHATE OF ATROPINE IN THE TREATMENT OF POISONING BY OPIUM.

BY B. LEWIS PATON, M.B., C.M. EDIN.

THE value of sulphate of atropine in the treatment of poisoning by opium seems to be shown by the following case.

On Oct. 12th, 1895, a Chinese woman, married, aged twenty-nine, living in Amoy, tried to poison herself by taking, according to her own statement, two ounces of prepared opium in a cold infusion of some sort which she had made overnight. She drank the mixture at about daylight, but it was not found out till some hours afterwards. Native methods were used to produce vomiting, so that by the time I was asked to see her she had already vomited frequently, the vomited matter, according to the statements of those who saw it, giving unmistakable evidence that opium had been taken. I was not at first allowed to see the patient, but her hand was thrust through the bed-curtain to enable me to feel the pulse, and by asking her questions I gathered that she was already somewhat drowsy. A mixture containing atropine sulphate was prescribed to be taken at frequent intervals. In the afternoon I was again sent for, and was now allowed to see the patient, whom I found in bed and deeply comatose, it being difficult to rouse her. She was unable to swallow, so that the medicine could not now be taken by the mouth. The friends were indignant when I suggested that she should be got out of bed, moved about, and any and every means used to keep her awake. How could they treat a lady in that way? I then suggested the use of the hypodermic needle and the injection of a drug which was believed to be antagonistic to opium. Strange to say, the husband gave his consent, for the Chinese are not yet sufficiently acquainted with this method of introducing a drug into the system. The patient was now lifted out of bed and put in a chair, and the hypodermic injection was begun at 3 P.M., a solution of atropine sulphate of 2 grains to the ounce of distilled water being employed, 20 minims of which were injected. This was done four times—viz., at 3 P.M., 3.15 P.M., 3.30 P.M., and 3.45 P.M.; 80 minims, or about one-third of a grain of the sulphate, being injected in all. There was very little change in the condition, and as the husband was unwilling to have the injections continued I then left, asking that word might be sent in an hour or two. When next sent for I found the coma somewhat deeper, the head was thrown back, and the neck rigid. It was impossible now to make her walk about, even had the friends been willing, as there was rigidity of all the joints. If she was made to stand it was with the greatest difficulty that the hip- and knee-joints could be bent to enable her to be seated again. The injections were now recommenced, but of double the strength, 4 grains to the ounce being now used. I should mention that the respirations were now only 4 or 5 per minute and were of the Cheyne-Stokes' character, the face becoming somewhat cyanosed in the long intervals. Twenty minims were injected five times as follows: at 5.45 P.M., 6.15 P.M., 7.45 P.M., 8.30 P.M., and 9.30 P.M. By this time there was an improvement in the number of respirations. They had

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increased to 9 or 10 per minute. The rigidity, too, was passing off, and freshly pounded carbonate of ammonium applied to the nostrils began to have some effect in rousing her. Just before midnight I visited the patient again and injected 15 minims, which brought the total amount injected to 115 minims, or about 1 grain of the sulphate. Next morning I was not allowed to do more than feel the pulse, the hand being thrust through the bed-curtain as at the first visit. She was then quite conscious; the pulse was 128 and she had some fever. As the bowels had not been moved and the bladder emptied since the day before taking the opium an aperient with some quinine was prescribed. I heard no more of the case for a week or two, when I was told that by the afternoon of the day of my last visit the patient was perfectly well. The total amount of sulphate of atropine injected was about 1½ grain. The patient had at one time smoked opium, but according to the statement of her friends had given up the habit about a year ago.

Amoy, China.

NOTE ON THE PREVENTION OF LARGE MAMMARY ABSCESSES BY EXPRESSION OF THE MILK.

By WALTER G. SPENCER, F.R.C.S. Eng.,
SURGEON TO THE OUT-PATIENTS AND TO THE THROAT DEPARTMENT, WESTMINSTER HOSPITAL, ETC.

UNFORTUNATELY cases of large mammary abscesses are seen too often in the wards of a general hospital. A woman has been exhausted by the previous pregnancy and lactation and is usually more or less worried about her family. Generally more than one incision has to be made, the sinuses are long in healing, sometimes the removal of the whole breast has been required, and even after healing the scars which remain may become later the site of cancer. Doubtless with proper care the breast need never become so overdistended, but when it is beyond the powers of suction to empty it the application of hot fomentations, poultices, or belladonna plaster is surely a mistake, for all the secondary ducts must quickly become converted into abscess cavities unless the milk be first removed. Professor Tarnier some years ago devoted a clinical lecture to the subject. I have had some half a dozen cases during the last two years among the out-patients at the Westminster Hospital. In all instances the breasts were extremely distended, lactation having been recently interrupted; the skin over the breast was, however, still free from induration, so that the full ducts could all be felt. By the forcible expression of half to a pint of milk suppuration was prevented. In two of the cases nitrous oxide gas was given; the other patients bore the pressure without an anæsthetic. Taking the breast in the hollow of the hands and increasing the pressure very gradually and as uniformly as possible there first oozed from the nipple a few drops of whey, then a small plug of curd, followed by a stream of milk. From each duct a plug of curd had to be driven before milk came. Finally, there issued streams of milk in many directions as water from the rose of a gardener's watering-pot. Directly milk flows tension is relieved and further pressure does not cause so much pain. The amount of pressure required when the breast was so over-distended as in the cases alluded to indicated clearly that suction would have been quite inadequate, whilst the fact that each duct was plugged by curd showed why the milk was retained and how inevitable must have been decomposition and suppuration. In my last case a small areolar abscess had already formed and blocked the nipple by its pressure. The abscess was opened under nitrous oxide gas and nearly a pint of sweet milk expressed. No further suppuration ensued. Afterwards the women have been ordered to foment and to squeeze the breast frequently and to take iodide of potassium for a few days.

Brook-street, W.

RUPTURE OF THE TERMINAL EXPANSION OF THE EXTENSOR COMMUNIS DIGITORUM.

By F. G. WALLACE, M.B., B.C. CANTAB., ETC.,
LATE NON-RESIDENT HOUSE PHYSICIAN TO ST. THOMAS'S HOSPITAL, ETC.

ALTHOUGH perhaps coming under the head of "minor ailments" I think that the following case is interesting, partly from its rarity and partly from its causation.

A woman aged twenty-nine years came to me on Christmas Day, 1895, complaining of inability to completely extend the terminal phalanx of the middle finger of the left hand. She alleged that a few hours previously, while pulling up her stocking, in some way she caught the finger and heard a snap, although she felt no pain. On her attempting extension the terminal phalanx formed an angle of 135° with the rest of the finger. There were tenderness and swelling over the back of the joint and some pain over the middle of the dorsum of the middle phalanx. It was put up in a splint, with the terminal phalanx as far as possible in a state of hyper-extension. Though the patient removed the splint several times, it was reapplied each time and kept "on" for about ten days, after which a splint with a spring which pressed back the terminal phalanx was worn for a fortnight. Some improvement has resulted, attempted extension now producing an angle of 160°. Some tenderness over the dorsum of the middle phalanx still remains.

Earl's-court-road, W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collect as habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

UNIVERSITY COLLEGE HOSPITAL.

EPILEPTIC HEMIPLEGIA; VERY NUMEROUS FITS OF JACKSONIAN TYPE; RECOVERY.

(Under the care of Dr. CHARLTON BASTIAN, F.R.S.)

SOME of our readers may recollect a lecture by Dr. Bastian [1] which was published in THE LANCET on the subject of Epileptic Hemiplegia. In that lecture he included two distinct classes of cases under this head. There are, first, the cases referred to in a previous lecture, in which a very brief and temporary hemiplegia is apt to follow certain severe attacks of unilateral convulsions, the hemiplegic condition in these cases being presumably due merely to vascular spasms plus certain molecular changes in definite parts of the brain. Secondly, there is the much more formidable group of cases in which we have to do with distinct and obvious organic lesions in the brain, giving rise both to the epileptiform mode of onset and to the more persistent hemiplegic condition. Dr. Todd wrote on this subject. Our readers will also find interesting contributions by Dr. Hughlings Jackson,[2] Sir J. Crichton Browne,[3] and Dr. Kelley.[4] For the notes of this case we are indebted to Dr. Harold C. Way, house physician.

A married woman aged fifty-three years was admitted to the hospital on Nov. 23rd, 1895, paralysed on the left side of the body. She had had influenza in the previous March, which was followed by constant headache and occasional vomiting lasting for a period of five or six weeks. She then went away for three months and returned to her home in August almost quite well. After this the pain over the whole of the top of her head gradually became worse, but there was no sickness. On Nov. 9th she complained of tingling and numbness in the left arm and on the left side of the face. On waking in the morning of the 10th she found she was completely paralysed on the left side of the body. On the 11th she had a fit with twitching which was confined to the left side of the body. Similar fits were said to have recurred daily in batches until the date of admission. There was a history of insanity in the family, and four years ago her friends said she was completely "off her head" for some months which they had attributed to family troubles. Since then she had been mentally dull and childish. There was no history of syphilis, and previously her health had been good. On admission her condition was as follows. She was constantly muttering and crying out with pain in her head; the pain was not localised and there was no

[1] THE LANCET, June 20th, 1874.
[2] Medical Times and Gazette, 1881, vol. i., p. 185.
[3] THE LANCET, Aug. 15th, 1874.
[4] Medical Times and Gazette, 1878, vol. ii., p. 216.

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tenderness. She was very emotional, crying when spoken to, and she could not give rational answers to questions put to her. She had also a number of delusions, still thinking she was in her own home &c. The pupils were unequal, the left being much larger than the right, but they reacted well to light. The ocular movements were good in all directions. There was complete left hemiplegia, with some rigidity of the left arm and leg. The left naso-labial fold was more marked than the right, but the left angle of the mouth was raised badly when the patient showed her teeth. The tongue protruded markedly to the left. The plantar reflex was absent on the left side, but present on the right. The knee-jerks were exaggerated on both sides; there was no ankle clonus. Sensibility could not be satisfactorily tested owing to the patient's dull mental condition, but sensation to pain was not lost. Muscular sense seemed, however, to be lost in the left limbs, as the patient continually cried out to have her arm and leg "put down" while they were already straight down in the bed. The heart and lungs were normal. There was nothing unnatural in the urine. The pulse was 86, regular and of low tension; the temperature was not raised. There was no vomiting whilst she was in the hospital; and there was no optic neuritis. During the first three days after admission the patient had from ten to fifteen fits daily, mostly occurring in batches during day and night. For the next three days the fits were less numerous and slighter, and none occurred after the 29th, on which day she had three slight attacks. All the attacks were similar in character. They commenced with twitching at the left angle of the mouth, which slowly spread up the face, then extended to the fingers, arm, and shoulder, and next to the toes, leg, and hip of the left side. Occasionally in the more severe fits the convulsion spread to the right side of the body. The whole body then became rigid, the legs and arms being flexed; the rigidity was more marked on the left side. The head and eyes also were strongly turned to the left. Consciousness was not lost during the fits, the tongue was not bitten, and there was no micturition. The last fit occurred on Nov. 29th, and on the following day she was able slightly to move her left leg. In the course of the next three days she rapidly regained power in the paralysed limbs and face, whilst muscular sense was simultaneously restored. On Dec. 16th the patient got up and was able to stand and walk fairly well. There was no dragging of the left leg and the left grip was fairly good. Her mental condition still remained weak, but there were no delusions. When first admitted syphilis was suspected, and she was put upon a mixture containing potassium iodide and liquor hydrargyri perchloridi. After a few days this was omitted and she was given three times a day a draught containing ten grains of chloral and twenty grains of bromide of potassium. After Dec. 14th she took only a draught containing twenty grains of bromide of potassium every evening.

Remarks by Dr. BASTIAN.—When first admitted pachymeningitis or a growth in the right Rolandic area was suspected to be the cause of the patient's symptoms. After a few days, however, the absence of optic neuritis, of vomiting, and of any localised pain or tenderness made this notion improbable, and it was supposed that the patient was suffering from thrombosis of the first, second, and third branches of the right cerebral Sylvian artery supplying the Rolandic area. It was thought that this occurred in the night of Nov. 9th, as premonitory tinglings had been felt during the day on the left side of the face and in the left arm, whilst when the patient awoke the next morning she found herself paralysed on that side. On the following day (Nov. 11th) she had the first fit, and the fits very frequently occurred daily till Nov. 29th. They were typical attacks of "Jacksonian epilepsy," always beginning and spreading in the same way, and sometimes involving the opposite side of the body, though even then they were unassociated with loss of consciousness. One of the most interesting features about this case was the very rapid way in which the paralysis (and with it the loss of muscular sense) cleared up after the cessation of the fits. This of itself showed that the hemiplegic condition could not have been produced by a cortical hæmorrhage, and led to the supposition that the amount of thrombosis in the branches of the right middle cerebral artery must have been small and perhaps associated with a fit in the night of Nov. 9th (thus initiating the hemiplegia); or else, if larger at first, that it must have become partially resolved and partially compensated for by the establishment of a free collateral circulation. These cases, in which Jacksonian fits are occasioned by vascular occlusions, are sometimes very difficult to diagnose from cases of new growth in or just beneath the Rolandic area, an instance of which occurred in my practice at the National Hospital for the Paralysed and Epileptic, Queen-square, about two years since, in the case of a girl suffering from double mitral disease.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Adjourned Discussion on the Parasite of Malaria.

AN ordinary meeting of this society was held on Feb. 25th, Mr. HUTCHINSON, President, being in the chair.

The adjourned discussion[1] on the Parasite of Malaria was reopened by Dr. GEORGE THIN, who read a note on the Appearances found in the Tissues of a Fatal Case of Pernicious Malaria at Sierra Leone. The tissues examined were from a patient who died from pernicious malarial fever at Sierra Leone after being four days under observation. The temperature was 100° F. when he was first seen; during the night it rose to 106·2°. On the second day it was 98·4°. On the third day it rose to 106° and was brought down by treatment to 102·4°. He died on the morning of the fourth day. The cerebral functions were disturbed when he was first seen and he soon became comatose. Dr. Thin was indebted to Surgeon-Captain Duggan for sending him portions of the tissues. *Brain:* The vessels of the pia mater were congested, with some colloid-looking plugs penetrating the surface of the brain apparently in the tracks of the vessels. The substance of the brain itself seemed to be little changed, but the blood-vessels contained many parasites of malaria. The large vessels contained very few and many none at all, but the small vessels contained many parasites, and many capillaries were filled with them. The parasites were in the red corpuscles and were found in all stages of development. The most numerous forms were those which were in a very early stage, appearing as little more than a stained point in the centre of the red corpuscles. Others were of an intermediate size, occupying an appreciable extent of the corpuscle. Others, much fewer in number, had a comparatively large mass of central pigment and almost entirely filled the red corpuscles. The tissues not being in a perfect state of preservation the finer structure of the spores of the mature parasite could not be observed. Spores in various stages, from the smallest forms to those of central pigment, could sometimes be found in the same vessel. Some of the endothelial cells of the vessels contained pigment. *Spleen:* All the sections examined contained many white corpuscles laden with pigment. These pigment-bearing cells were most numerous in the spleen pulp. Many of the very large white corpuscles which contained considerable blocks of pigment were evidently undergoing degeneration, their nuclei being scarcely susceptible of staining. A few of the white corpuscles contained, in addition to small pigment spheres, red blood-corpuscles with parasites in their interior. The small lymphoid cells of the spleen did not contain pigment, and very little of it was observed in the Malpighian corpuscles. The red blood-corpuscles in the spleen contained very few parasites. Several were observed after a long examination. They were in an early stage. Large white corpuscles containing pigment were observed in the veins. *Bone marrow:* In a few sections of bone marrow examined some white corpuscles containing pigment were observed, but they were few in number compared with those in the spleen. No parasites were observed in the bone marrow. The marrow was from a rib. *Liver:* Parasites were not observed in the liver so far as the examination had gone, but it presented much pigment. The pigment was contained in large white corpuscles in the interlobular network. In some parts the liver cells contained pigment. Apart from the deposit of pigment the liver seemed normal. *Kidney:* All the structures of the kidney in the parts examined were normal except the convoluted tubes. In these tubes the epithelium was swollen and granular; some cells were broken down and in many of those which were

[1] The report of the previous discussion was published in THE LANCET of Feb. 15th, 1896.

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still entire the nucleus refused to stain. These were in marked contrast to the straight tubes, which were quite normal. The glomeruli presented nothing abnormal. A few cells containing pigment were observed in them. There were no evidences of an interstitial congestion, the morbid appearances being limited to those of an acute catarrh of the convoluted tubes. No parasites were found in the tubes, and extremely few were observed in the red corpuscles in the vessels. The appearances suggested that the toxic products of the parasites whilst being eliminated by the kidney had exercised a destructive effect on the epithelium of the convoluted tubes. All these appearances were similar to those described by Marchiafava and his pupils in the pernicious fever of Southern Italy. Microscopical preparations illustrating the points referred to were shown.

Dr. JOHN ANDERSON referred to a very valuable paper in the Johns Hopkins Hospital Reports for last year, in which were recognised the usual types of malarial fever associated with three forms of parasites. The quartan parasite took seventy-two hours to develop and the tertian forty-eight hours. With regard to the æstivo-autumnal form, the authors of the paper (Dr. Thayer and Dr. Hewetson) say that its period of development varies from twenty-four hours or less to forty-eight hours or more. The fevers associated with this organism vary greatly in their clinical features. Their accounts did not agree with Dr. Thin's drawings. They thought that it was associated with the crescentic form of parasite, and the latter they regarded as a development from a small hyaline body. Assuming the correctness of Laveran's theory, Dr. Anderson discussed the following three points: (1) the period of incubation; (2) the length of time which the parasite could remain latent; and (3) its means of access to the body. Some writers thought that the period of incubation was short, and Laveran had placed it at from six to ten days. In this connexion it should be remembered that some sudden seizures might really be due to heat apoplexy, in which the hypodermic administration of quinine had often proved useful. The length of time during which the fever might remain latent varied in an extraordinary degree. In one case the malaria occurred nineteen years after the exposure to a last attack. In a case under his own observation an officer resided at Peshawar for five years and had no fever there, but after his return to England he suffered from ague like the ague of the Peshawar Valley. It was not fair to assert that a fever was not malarial because a parasite was not found. He quoted an instance in which in a battery of horse artillery every man was attacked. A patient who left China twenty-three years ago and had not resided in a malarial country since still suffered from malaria occasionally. Another patient suffered from brow ague, and yet it was forty years since he left a malarial country; this brow ague yielded to the free use of quinine. He next discussed the method of propagation—whether by air, water, or mosquitoes. When soil had been turned it had been noticed that people had been attacked who lived in houses in a line with wind blowing from this soil. There were several cases to support the water-borne theory. There was certainly less disease at Peshawar since better water had been introduced. Water served as a vehicle not only as water drunk but in the form of inspired watery vapour. He thought that a point against the mosquito theory was this, that as a rule the recent arrivals in India suffered most from mosquito bites, while those who had been there a little time appeared to suffer most from malaria. Cases of malaria with cholera features were sometimes difficult to discriminate; the malaria had a much less mortality than cholera; the disease was not epidemic, and it was cured by quinine. In Central India in three years six cases of severe sudden intestinal hæmorrhage occurred; two of them died, but no intestinal ulceration was found. He appreciated the prophylactic action of quinine in malaria, and he recommended the administration of a small dose of quinine daily. The hydrochlorate of quinine was the most suitable preparation, and if administered subcutaneously with antiseptic precautions gave rise to nothing but slight local pain. He had found iodine and arsenic valuable.

Dr. MANSON said that he agreed with Dr. Thin in the main, but he thought that he had attempted too much. He did not explain sufficiently clearly what he meant by "sterile" forms, and he thought that the forms which had been so described were not natural, but factitious, and due to the rupture of the blood corpuscles and the escape of the parasite. Sometimes a parasite escaped voluntarily as a vital act and then gave birth to flagella; sometimes double infection of a corpuscle happened and conjugation of the parasites took place. He did not think that the mosquito acted as the intermediary host, for these parasites passed from one definitive host to another. The flagellate bodies appeared in the blood only when the latter had escaped from the vessels; they were the homologues of spores, and they swam about free from the parasite. The function of these bodies lay outside the human organism, and they were taken outside by something that preyed upon the blood, and most likely the mosquito was the agent required for giving the parasite the opportunity for continuing its life history outside the body. In the mosquito the crescent bodies developed flagella, and those broke free and swam about in the blood in the mosquito's stomach. The parasite of the pigeon was specifically different from that found in the human body. He could not entertain the idea that the flagellar movements were "death agonies," for the movements were most life-like. He knew from personal observation that mosquitoes did bite birds, and canary-fanciers in India were in the habit of protecting their charges with a mosquito-curtain at night. In favour of the water-borne theory was the fact that the natives would point to certain wells as sources of malaria. He believed that the malaria parasite died in a very short time, for epidemics ceased soon. He concluded by deprecating the study of these organisms from the bacteriological standpoint. It was a protozoon, and it was not necessary to study the stained parasite when the living animal could be obtained to look at. He showed under the microscope some specimens to illustrate his views.

Professor CAYLEY (Netley) said that he had come to hear something more of the relation which a special form of parasite bore to a particular variety of malarial fever, but he had heard very little that was certain on that point. He believed that all the varieties were but modifications of the same parasite; similarly all the forms of malarial fever were but modifications of one type, modified by climate, temperature, the quantity of the parasite introduced, its virulence, and the power of resistance of the individual. In all the varieties of the fever one particular form of microbe was invariably found—the amœba; two or three in a field might assume the rosette form and sporulate, and thus give rise to another generation of microbes. The differences of shape he believed to be accidental, the sporule might gradually become pigmented, and the pigment be aggregated or scattered. Most of the flagella appeared to be found when the fever had taken on a chronic form. With regard to the influence of quinine he believed it should be given in the sweating stage and repeated in the next few hours; this prevented recurrence. It never would prevent an attack if given before it. As to the prophylactic action of quinine he believed in giving a five- or ten-grain dose every morning, and the late Surgeon-Major Parke found it simply invaluable when used in Africa this way.

Brigade-Surgeon-Lieutenant-Colonel TEMPLE WRIGHT said that he had served with Indian regiments composed of different classes of natives, and could say that malarial fever was the chief cause of invaliding, and most of the soldiers admitted to hospital had large spleens. He believed that exposure had a good deal to do with the exciting cause of malaria. In treatment he believed that antiscorbutic measures were useful when combined with quinine.

Dr. GALLOWAY said that he intended to criticise Dr. Thin's able paper from the biological point of view. He thought that the study of the protozoa was still in its infancy and that we had only histological examination to rely on, and therefore he deprecated dogmatic statements with reference to the stages of these organisms, especially when such statements referred to negative results. The experience gained in the study of coccidium oviforme should not be lost upon investigators. The statements as to the movements of the flagella being such as to indicate approaching death were not accurate from the point of view of actual observation; he had convinced himself that this was a vital and not a degenerative process.

Brigade-Surgeon SCRIVEN discussed the subject principally from the therapeutic point of view and said that the chief difficulty in India was to decide whether the fever was typhoid or malarious, and perhaps the parasite would help to decide this point. He quoted a remarkable effect of change of air. A patient living in a malarious district and catching malaria might move to another more malarious district and yet get rid of his malaria. This seemed to point to a parasite of a different kind. He concluded by quoting some evidence that the disease might be contracted through water.

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Dr. THIN replied, chiefly concerning himself with a defence of his views against the criticisms which had been levelled at them. He gave assurances that the facts recorded in the conjoint paper were all recorded in good faith and the microscopical results were attached to the cases afterwards without any attempt to fit them together. He thought that a point against regarding the flagella as the equivalents of spores was the fact that they possessed no nucleolar elements.

MEDICAL SOCIETY OF LONDON.

Causation and Treatment of Obscure Renal Pain.—The Pain of Renal Stone.—Demonstration of the New Shadow Photography by Roentgen's "X" Rays.

AN ordinary meeting of this society was held on Feb. 24th, the President, Sir J. CRICHTON BROWNE, being in the chair.

Dr. RALFE read a paper on the Causation and Treatment of Obscure Renal Pain. He observed that the question that was put before the society that evening was that of dealing with obscure forms of renal pain, and to discriminate between those forms of nephralgia which called either for surgical or medical treatment. Dealing chiefly with the latter class of cases Dr. Ralfe would divide them into four groups:—1. Reflex nerve disturbance giving rise to kidney pain, such as happened in valvular disease of the heart, particularly lesion of the valves; also in thoracic and especially abdominal aneurysms. Nor should the reflected pains from hardened masses of scybalæ be forgotten, especially those lying in the descending colon where it crossed the left kidney. 2. The aching kidney was generally associated with movable kidney, but that in this communication was ruled out of line because it fell among the surgical cases. But other forms of aching kidney existed which required the attention of the physician, such as, for instance, the contused kidney, which might arise from a very slight cause and gradually grow worse from neglect. Such a case Dr. Ralfe quoted of a young woman who wore her corset too tight and was much given to golf, lawn tennis, and hunting; in one of these amusements she gave herself a violent upward strain which almost caused syncope. She was carried home, and after a few days, feeling better, she sat up, but had to go to bed again; as she was very impatient of bed treatment she had frequent relapses. Another cause of aching kidney was the excess of normal constituents of the urine, such as urea and undue acidity. As regarded the first, Dr. Ralfe quoted a case of a patient with extreme azoturia who suffered such aching pain in his left kidney that one physician diagnosed it as due to calculus and another to cancer. As the azoturia disappeared the violent pain left the kidney. The second case was sent into the hospital, with violent colic, painful micturition, and shooting pains down the groin. An immediate operation was considered necessary. As no morbid signs appeared in the urine Dr. Ralfe postponed the operation till the next attack of colic asserted itself, and the urine was again found normal, but highly acid. He placed the patient on citrate of potash and buchu and on regular doses of distilled water every three hours; under this treatment the colic, which at first had recurred about every second day, gradually disappeared. 3. Acute gouty paroxysms of the kidney. Dr. Ralfe referred to a remarkable case which occurred to Professor Virchow,[1] in which a patient was seized with a sudden attack of pyæmia; the urine became fully purulent and under the microscope gave evidence of innumerable crystals of uric acid. Dr. Ralfe also related the case of a man who had never had gout before in his life, but had frequent attacks of renal colic with blood and pus and uric acid crystals. After lasting four years these attacks passed off, only to be succeeded by a severe form of rheumatoid arthritis. Another patient who had previously had no evidence of gout lost all her colicky symptoms on taking citrate of potash and buchu and distilled water continuously. 4. Diseases of kidneys which showed no determinate symptoms, such as blocking of a ureter with a tightly impacted calculus and preventing the passage of symptomatic urine into the bladder; but here the fact of no morbid urine passing for some time would exclude tuberculous disease, which had been suspected sometimes, also a progressive enlargement of the kidney would show that either hydronephrosis or pyonephrosis was taking place. Sudden suppression of urine might often lead to doubt. In the instance of single kidney the diagnosis was not usually difficult, since anatomical knowledge was now so correct. But in cases where both kidneys were simultaneously obstructed, especially when unattended with colic or any marked symptoms, it often became difficult to decide upon a line of action, since the suppression might be caused either by nervous suppression or acute congestion of the kidney. A young woman aged twenty-seven woke one morning unable to pass urine, but had no other symptom except a little indefinite backache. This state of things continued for four days without any apparent change in the patient; but on the fourth day the pulse showed signs of intermittency, and it was then agreed to explore one of the kidneys. In the pelvis of the kidney was a thick, gritty deposit, accompanied by a stone in the ureter. A similar condition was found in the other kidney when opened a fortnight afterwards. The other case was that of a young man aged twenty-four, who left home feeling perfectly well. On reaching his place of business he was seized with sudden pain across the loins and a violent desire to micturate, and then voided an immense quantity of bloody urine. After this he felt great relief, but passed no more urine all that day, and came to the hospital on that account. When Dr. Ralfe saw him two days later on his visit not a drop of urine had been passed, and, thinking it possible it might be a case of double impaction, he requested his surgical colleague to see the patient, who decided, as there were no urgent symptoms present, to defer an immediate operation. The next morning the patient began to pass bloody urine, and continued to do so till it became clear, and he made a good recovery. It was interesting that as soon as the hæmaturia recurred a slight œdema set in. Dr. Ralfe attributed the previous absence of this symptom, and also of pain and pyrexia, to the severe hæmorrhage that ushered in the attack.

Mr. HURRY FENWICK read a paper on the Pain of Renal Stone. He brought forward a series of uncomplicated nephro-lithotomies to account for the difference which appeared to exist in the character and severity of the pain produced by stone in the kidney. He asserted that uncomplicated stones in the kidney could be divided into three classes: (*a*) those lying loose in the pelvis, (*b*) those under the capsule lodged in the cortex of the kidney; and (*c*) those contained in the fleshy part of the kidney (the columns of Bertini or Pyramids). The pain and suffering in loose pelvic stones were usually typical. They evoked colics, radiations, and often bladder symptoms. The cortex stones did not evoke colics, radiations, or bladder irritability, but merely a severe fixed pain. The intermediate group (the parenchymatous class) partook of the characters of both, for the hollows in which they lay often communicated with the pelvis by fine channels. One prominent symptom seemed in many instances to separate the embedded stones from the pelvic stones. In the cortical stones the patient was forced to sleep on the kidney in which the stone was lodged, but could not turn without pain on to the healthy side. Often in the pelvic stones the patient lay on the kidney of the unaffected side. Another sharp line of difference between the cortical and the pelvic stones was to be found in the urine. Pelvic stones usually caused pus in the urine within a year or so, but the cortical stones did not change the character of the urine even after twenty or more years.—Dr. C. W. CHAPMAN asked if the frequency of micturition could be used to discriminate between cortical and pelvic stones.—Mr. SWINFORD EDWARDS referred to a case in which he had recently removed a large stone from the kidney. It was not waterworn and was believed to have been embedded in the cortex. There had been hæmaturia two years ago, but not since, and the patient complained of fixed pain in the loin.—Mr. HURRY FENWICK, in reply, said that cortical stones did not produce symptoms referable to the lower urinary tract.

Mr. SYDNEY ROWLAND then gave an admirable demonstration of the New Shadow Photography by Roentgen's "X" Rays. He began by explaining the nature of the electrical discharge used and exhibiting the structure of a Crookes's tube. Many slides were shown in the magic-lantern to illustrate the applicability of the process, and finally several photographs were taken of objects, such as penknives, pince-nez, toothpicks, &c., and of the hands of two or three Fellows of the the society. These were developed in the room, and the negatives were shown on the screen before the close of the meeting.

[1] Berliner Klinische Wochenschrift, No. 1 1884.

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HARVEIAN SOCIETY OF LONDON.

Pneumonia.

A MEETING of this society was held on Feb. 20th, Mr. J. KNOWSLEY THORNTON, President, being in the chair.

Dr. J. EDWARD SQUIRE read a paper entitled "Some Clinical Remarks on Pneumonia," alluding first to the influence exerted on the production of pneumonia and on the course of the disease by the conditions of the lung tissue—modifications in the "tissue-soil" which allow of the growth of micro-organisms. It is on the character of this change in the tissues that the individuality of each case of pneumonia depends. Though chill is the common determining cause of pneumonia, fatigue or debility after illness renders the risks from chill greater, and in this connexion a case was quoted where pneumonia followed a chill during convalescence from measles. The not infrequent occurrence of pneumonia as a complication of enteric fever introduced some remarks on the importance of deciding in any case of pneumonia whether the lung mischief fully explains the course of the illness as well as the existing symptoms. The occurrence of pneumonia has sometimes delayed the recognition of the disease of which it was merely a complication. The peculiarities of the pneumonia of influenza were referred to and the influence of malaria on pneumonia was discussed. Whether or not malaria predisposes to pneumonia there seems little doubt that the cachexia left after malarial poisoning adds to the danger of a subsequent attack of inflammation of the lung. The question whether acute congestion of the lung is a definite illness or whether the cases so described are not, in fact, cases of pneumonia was then considered. Pneumonia may prove fatal before the lung consolidation is complete, and, on the other hand, resolution of the pulmonary exudation may occur before it has coagulated. In both instances the signs and symptoms of pneumonia are not fully declared, and when recovery takes place in the first stage of the pneumonic process the term "abortive pneumonia" may be used. Instances of divergence from the usual course of the disease were then mentioned, and some of the more important complications and sequelæ were illustrated by cases which had come under the speaker's observation. Pneumonia of the apex sometimes gives rise to difficulties in diagnosis, especially with reference to the presence or absence of tuberculosis. In the management of pneumonia Dr. Squire strongly advocated a stimulant line of treatment from the first, for the exhaustion which constitutes so great a danger may be more easily prevented than counteracted. The necessity for a plentiful supply of nourishment, which must be administered frequently in small quantities, makes good nursing essential. The good results obtained by the inhalation of oxygen in certain cases, and the relief following a tepid bath in one instance, were also referred to. In conclusion Dr. Squire remarked that though there may be some general principles of treatment in all cases of pneumonia the details must depend upon the individual peculiarities of each case.

Dr. BOXALL had met with several cases of acute lobar pneumonia in connexion with childbirth, cases in which there was not the slightest suspicion of septic complication at all of these occurred in hospital practice where the septic element could be completely eliminated, but the removal of the patient to the hospital during labour entails a considerable risk of chill, and the labour itself is necessarily attended with fatigue. Acute lobar pneumonia like many other febrile diseases, and especially those known as "acute specifics," often led to premature delivery or to miscarriage. These cases also, if septic contamination be avoided, seemed to do well. As soon as delivery or miscarriage occurred not only did the general condition of the patient become no worse—on the contrary it often improved—but the local manifestation of the disease, the lung consolidation, often rapidly improved also—an effect probably due to the inevitable loss of blood.

Dr. EDWARD GRAY said that in an apparently hopeless case of pneumonia he determined to try oxygen as a last resource. When he returned to the sick room with a cylinder containing from thirty to forty cubic feet of that gas, the nurse remarked, "It's all over, doctor." The patient's breathing had, in fact, ceased and there was no reflex action on touching the conjunctiva. There was no time to examine the heart, but no pulse at the wrist or temporal artery was perceptible. Dr. Gray put the apparatus together, applied the mouthpiece, turned on the gas, compressed the patient's chest at regular intervals, and eventually was rewarded by respiration being re-established. The patient gradually improved from that hour, and is now as well and strong as ever he was. In a case of pneumonia following influenza Dr. Gray found that the apparently long continuance of the rusty-coloured sputa was due to the habit of sucking "Spanish liquorice" for the relief of the cough.

Dr. COCK mentioned that oxygen seemed to act not only as a stimulant and restorative, but also as an expectorant of great value. When living in a malarious English district he found that the type of pneumonia was of a particularly fatal character, and he recollected the case of a soldier invalided home for malarious Egyptian fever who developed rapidly fatal pneumonia in consequence of a chill.

Mr. HAZEL said that he had recently treated a bad case of pneumonia attended with great debility occurring in a medical friend aged seventy-five years. Alcoholic stimulants (whisky and brandy) were taken to the extent of twelve ounces in twenty-four hours, and both he and the patient largely attributely the eventual recovery to their use. Strophanthus and nux vomica (which are preferable to digitalis and strychnine) were also taken, together with iodide of potassium to aid resolution.

Dr. G. A. SUTHERLAND referred to the inverted type of breathing which was frequently present in pneumonia and might prove an aid in the diagnosis of obscure cases. The respiratory cycls was altered from the normal sequence of inspiration—expiration—pause, to expiration—inspiration—pause. The fresh air was thus retained in the lungs as long as possible and the demand for more oxygen was supplied.

BRITISH GYNÆCOLOGICAL SOCIETY.

Exhibition of Specimens.—The Permanent Cure of Anteflexion by Operation.—Clinical Notes of Gynæcological Cases from a Provincial Hospital.

A MEETING of this society was held on Feb. 13th, Dr. CLEMENT GODSON, President, being in the chair.

Mr. BOWREMAN JESSETT showed the following specimens: (1) Advanced Uterine Carcinoma treated by Chloride of Zinc Caustic; and (2) Hæmorrhagic Cyst of the Ovary filling the Pelvis, with Adeno-carcinoma of the Uterus—panhysterectomy and recovery.—The PRESIDENT was much interested in the first case because the patient had first come to consult him, and in spite of age he felt justified in holding out to her hope of cure by the operation which Mr. Jessett had performed. It was too soon to speak of the ultimate results, but much had already been gained by the relief of her symptoms and by the hope of cure which she now had.

Dr. GEORGE ELDER (Nottingham) showed: (1) a specimen from a Case of Supra-vaginal Hysterectomy performed during Pregnancy for threatened Intestinal Obstruction; and (2) a Large Fibroid increasing rapidly after Marriage. The second specimen was shown by way of contrast to the first. In the first case the patient was aged thirty-seven years and had been married three years. This was her first pregnancy, and she had never suspected that she had pelvic mischief, but she had suffered greatly from constipation. When about four months advanced in pregnancy, the constipation having gradually got worse, she was one day seized with violent sickness and intestinal obstruction set in, so that between Dec. 12th and Jan. 1st the bowels were only relieved three times. Examination showed a mass rising into the abdomen; the central part seemed like the pregnant uterus, on the left was a large irregular mass, and on the right was a second mass which seemed more closely connected with the parent tumour. By the vagina the cervix was felt high up and pressed to the left by a mass blocking the pelvic outlet. The abdomen was opened and the uterus amputated above the cervix, the peritoneal edges being brought together over the stump. The parietal peritoneum was brought together round the stump. There was some hæmorrhage from the stump eight hours after the operation; convalescence was otherwise satisfactory.—The PRESIDENT asked whether, the obstruction being partly relieved, it would have been possible to allow the pregnancy to go on till a later stage, a Porro's operation being then performed.—Dr. BANTOCK and Mr. BOWREMAN JESSETT endorsed Dr. Elder's action in operating without delay.

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Dr. GEORGE KEITH read a paper on the Permanent Cure of Anteflexion by Operation, in which he advocated the performance of Dudley's operation, the object being to fix the cervix backwards and thus bring the cavity of the body of the uterus and the cervix in a straight line. The method is as follows: the whole thickness of the posterior lip of the cervix is divided directly backwards; each of the two cut surfaces is bent on itself and fixed in this position by stitches. Dr. Keith gave the history of several cases, of which the following is an example. A single woman aged twenty-seven years had never menstruated without severe pain, sickness, and headache; there was much trouble with the bladder, as during the periods she had to pass urine as many as thirty times in the twenty-four hours. She was operated on in October, 1895. Since then the patient has had three periods which have been normal in every respect, and there is now no trouble with the bladder.—The PRESIDENT said that in his own experience dilatation up to No. 16 had afforded exceedingly good results.—Dr. SKENE KEITH said that he had performed the operation about twenty times. In four out of five cases cure followed, and the rest were relieved, and he thought the method was then, perhaps, responsible for the incompleteness of cure. He had, therefore, slightly modified the operation by making the division more complete, so as to allow the uterus to assume a straighter position. He thought his brother's operation was a real addition to their knowledge of the means of treating anteversion.—Dr. HEYWOOD SMITH and Dr. BANTOCK also spoke.

Mr. E. F. ELIOT (Southampton) read a paper entitled "Clinical Notes of Gynæcological Cases from a Provincial Hospital." He referred to the difficulties which practitioners in a provincial town experienced in dealing with gynæcological cases requiring special knowledge and training when there was no opportunity of obtaining the opinion and help of men specially qualified for this kind of work. He read the notes of a number of cases of abdominal section, chiefly for ovarian and tubal disease. The cases were illustrated by pencil and water colour drawings of the diseased structures.—The PRESIDENT thanked Mr. Eliot for his paper and congratulated him on his results.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Heart Disease.

A MEETING of this society was held on Feb. 19th, Dr. MUTCH, President, being in the chair.

Dr. HANDFORD read a paper reviewing 500 cases of Heart Disease from his notes of hospital and private cases for the past ten years. The chief points to which he called attention were as follows. He first mentioned the influence of over eating and drinking in causing heart disease by inducing persistent high blood tension and consequent arterio-sclerosis. Alcohol, even in what is usually called moderate quantity, shares with tea, coffee, and tobacco the disadvantage of raising the blood pressure. Spirit-drinking may cause acute dilatation, while excessive beer-drinking may bring about the same result more slowly, largely by the bulk of fluid imbibed raising the blood pressure. Patients with heart disease should be moderate in the consumption of even bland fluids. In anæmia dilatation is compensated by hypertrophy, but enlargement often remains permanent. Such is the case also in dilatation from over-exertion. But an important element in all prognosis is the original size and quality of the heart and vessels. Successful athletes have been endowed with hearts above the average in size and quality. It is not only a great disadvantage but even a danger shortening life for a patient with heart disease to grow very fat. Besides the risk of fatty overloading of the heart the increased weight of the body throws an extra strain on the heart, and more pumping power is required to keep up the circulation over the extended area. In treatment the first question to decide is what cases are best left alone. Next, are the symptoms complained of due to an existing heart lesion or to some other and more obscure cause? Among cardiac tonics the pre-eminence of digitalis has not been in any way shaken by its numerous recent competitors; but its action seems sometimes to be capricious, and there are numerous cases, especially of aortic regurgitation and of mitral stenosis, where it evidently does harm. The key to the right understanding of these apparently contradictory cases lies in the proper appreciation of the action of digitalis in contracting the small arterioles and raising the blood pressure. This is a well-known and important effect of digitalis, but is only too generally overlooked.

MIDLAND MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—Residual Lymphadenitis.

THE fifth ordinary meeting of this society was held on Feb. 5th at the Medical Institute, Birmingham, the President, Dr. UNDERHILL, being in the chair.

Dr. WOOD WHITE showed a young man in whom a Soft Swelling, in many respects resembling a tumour, had developed in the scar of a bite from a horse.

Mr. HASLAM showed a Uric Acid Calculus nearly an inch and a half in length and forty grains in weight that he had removed from the urethra of a man aged forty years. The patient had a stricture just anterior to the scrotum, and for about two years had had difficulty in passing urine; the stream frequently stopped suddenly, and he could feel some hard substance in the penile urethra that moved backwards and forwards. On pushing this back he could easily pass urine again. On examination a hard mass could be felt in the urethra about two and a half inches from the meatus, and on passing a probe it was found to be a stone. Just behind the scrotum the urethra was blocked by another equally hard but much larger substance. An incision was made down to this, and it was found to be part of a long stone that had been broken across towards its anterior extremity, and on passing a pair of forceps along the urethra the remainder of the stone was removed. The fracture was evidently old, for its surface was smooth. A penile stricture had prevented the stone coming to the meatus.

Mr. JORDAN LLOYD showed the Upper Extremity of a patient nearly seventy years of age, which had been amputated just below the shoulder for embolic gangrene of the hand and lower half of the forearm of eight days' duration. The wound healed by first intention and the case had progressed satisfactorily since. The case illustrated the great advantage of operating early in this form of gangrene. Mr. LLOYD also exhibited the Femoral and Iliac Arteries removed post mortem from a man seventy years of age who had died suddenly. The interest of the case lay in the fact that he had had both thighs amputated for senile gangrene, the left nearly four years and the right nearly two years before his death, his wounds healing primarily on each occasion.

Mr. CHRISTOPHER MARTIN showed an Unruptured Tubal Pregnancy removed from a young married woman aged twenty-one years. There was a history of six weeks' amenorrhœa followed by colicky pain in the left lower abdomen and irregular hæmorrhages from the uterus. A fluctuating swelling could be felt behind and to the left side of the uterus. Mr. Martin opened the abdomen and found a large intra-peritoneal hæmatocele, limited by adherent intestine. The pregnant tube was unruptured, but was discharging blood from its open abdominal end into the cavity of the hæmatocele—a condition often termed "tubal abortion." Mr. Martin removed the tube and washed out the cavity of the hæmatocele. The patient made an uninterrupted recovery.

Mr. JORDAN LLOYD read a paper on Residual Lymphadenitis, defining the term as signifying inflammation of a lymph-gland which depended on the influence of a product residual in the gland from a peripheral lesion which had long ago ended in recovery.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Roentgen's Rays.—Exhibition of Cases.

A MEETING of this society was held on Feb. 13th, the President, Dr. PORTER, being in the chair.

Professor HICKS, F.R.S., Principal of Forth College, gave a very clear account of his experiments with Roentgen's rays and showed a large number of well-defined and beautifully executed shadowgraphs.

Mr. DALE JAMES showed (1) a case of Circumscribed

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Scleroderma in a girl aged nineteen years; under massage and the constant current it was rapidly improving; and (2) a severe case of Raynaud's Disease in a woman forty-four years of age. The present attack commenced last September after a miscarriage. A former attack, six years ago, was not so severe, but it involved some of the toes in superficial ulceration. There was no evidence of syphilis. The patient had rheumatic fever eleven years ago, which had left a slightly damaged aortic valve.

Mr. ATKIN showed a case of Symmetrical Gangrene (? Raynaud's Disease). The patient, a male aged thirty years, had pains in his fingers after exposure to cold and damp. The fingers then became cold and of a purple colour, turning to a deep dead black. Both feet were painful and discoloured. He had rheumatic fever at fifteen years of age. His urine contained albumin to the amount of one-half the total quantity.

Dr. ARTHUR HALL showed (1) a case of Facial Spasm; and (2) a case of Osteo-arthritis with Roentgen's shadow-graph of the hand.

Mr. SINCLAIR WHITE showed:—1. A woman aged fifty years who had symptoms of a Cancerous Stricture of the Rectum for six years. Colotomy had been performed three years after the onset of symptoms. The patient was still fairly well, and might be expected to live several years yet. 2. A man aged sixty-nine years, whose rectum had been resected nine months previously for Cancerous Stricture situated three inches above the anus. The growth, together with five inches of the rectum, was removed by the trans-sacral incision. The peritoneum was freely opened and the growth drawn out of the wound. A Murphy's button was used to unite the ends of the rectum. The posterior part of the rectal wound leaked, and for a time there was a fæcal fistula, but this gradually contracted. There was no evidence of recurrence, and the patient had complete control over his sphincters. He had gained two stones in weight and was stronger than he had been for years.—The PRESIDENT, Mr. SNELL, Mr. PYE-SMITH, Dr. ADDISON, Dr. STEDMAN, Dr. ARTHUR HALL, Dr. MARTIN, Dr. YOUNG, and Dr. BURGESS made remarks.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.

AN afternoon meeting of this society was held on Feb. 19th.

Dr. JAMES showed (1) a boy with well-marked Pseudo-hypertrophic Paralysis; (2) a boy in whom disease of the foot had resulted in increased Irritability of the Lumbar Cord; and (3) a man who had suffered from Hydronephrosis on the left side, which he had treated with apparent success by repeated aspiration.

Mr. CAIRD showed a boy whose Thigh he had Amputated at the Hip when the patient was in an emaciated and exhausted condition from prolonged disease of the head of the femur. The success was largely attributed to transfusion of saline fluid after the operation.

Dr. LOGAN TURNER showed a woman whom he had treated with decided benefit for Laryngeal Tuberculosis.

Dr. COTTERILL showed a man with a very large Vascular Tumour of the left side of the Face, involving the cheek and forehead, and extending to the temporal region. The tumour had existed for over thirty years; it had been treated in various ways without improvement, and recently it had increased in size. After discussing the treatment he said that he would probably tie the external carotid artery.

Mr. CATHCART and Dr. G. M. JOHNSTON showed a Skull and Brain from a man with an old-standing depressed fracture which had given rise to no symptoms. The depression was in the frontal region. There had been no splintering of the inner table and no irritation at the seat of injury.

Mr. CATHCART also showed (1) a Lung with Diffuse Sarcoma; (2) a specimen of Double Backward Displacement of the Radii; and (3) a specimen of Elephantiasis from Mombasa.

Dr. BYROM BRAMWELL showed (1) drawings of a case of Cancer of the Liver in which the distribution gave rise to unusual configuration of the organ; and (2) drawings from a case of Glio-sarcoma in the Pons which had been of very slow growth.

Dr. GILLESPIE showed specimens of Albumoses from the Urine in a case of nephritis.

Dr. W. RUSSELL showed an Abdominal Aneurysm from a woman over eighty years of age, whom he had seen in consultation, the symptoms pointing to gastric perforation. The aneurysm had ruptured retro-peritoneally, the blood passed by a narrow channel into the left loin, where it formed a large clot in front of and around the kidney, and carried the descending colon and peritoneum forward to the anterior abdominal wall. He also gave a note of a case of Hæmorrhagic Pancreatitis which he had had under his care in the Royal Infirmary. Microscopic specimens of this case and of a corresponding one which had occurred in Dr. James's clinic were shown and described by Dr. LEITH.

Dr. LEITH also showed specimens of a case of Phlegmonous Gastritis.

These afternoon meetings of the society are largely experimental, and the attendance of members at this meeting was not encouraging to those who have been advocating afternoon instead of evening meetings.

Reviews and Notices of Books.

The National Leprosy Fund Prize Essays on Subjects connected with Leprosy. No. 2. Conditions under which Leprosy has Declined in Iceland, by EDWARD H. EHLERS, M.D. No. 3. Leprosy in South Africa, by S. P. IMPEY, M.D., M.C. No. 4. On Spontaneous Recovery from Leprosy, by S. P. IMPEY, M.D., M.C. London: Macmillan and Co. 1895. Pp. 79, with Map. Price 3*s.* 6*d.*

THE title of the first of these papers (Essay No. 2), is oddly contradicted by the general conclusions of the author that owing to various circumstances leprosy is just now on the increase in Iceland. In 1848 the Government, looking upon the disease as about to disappear, closed the small-pox hospitals, which seem to have been veritable pest-houses. This false security led to carelessness, and during later years improved means of communication have introduced leprosy into parts of the island where previously none had existed. The value of official statistics in Iceland may be gauged from the fact that the "official enumeration" in 1889 reported 47 patients, whilst Dr. Ehlers in 1894 and 1895 himself saw 159, and, reckoning others whom he heard of but did not see, puts the number down at probably 200. Making every allowance for some increase in the five years the discrepancy is remarkable.

The main causes of decrease in the amount of leprosy after 1651, when the hospitals were established, are to be found, according to Dr. Ehlers, not in the hospitals, which never contained more than 5 per cent. of the whole number of lepers in the island, and certainly not in sanitation. The description of the ordinary living-room of the Icelander prevents any misconception as to the latter point: "If you enter the badstofa (general living-room—literally, bath-room) when thirteen or fourteen persons are sleeping there, first of all you feel a temperature which certainly both summer and winter reminds you of the tepidarium of a Roman bath, but surely here the likeness ceases. A suffocating stench and an unwholesome smell meet you. It is the smell of the mouldy hay, of the sheepskin quilts that are never dried or aired; it is the smell of the dirt which is dragged into the house on the clumsy Icelandic skin shoes. ..... In this dirt a confused mixture of cats, dogs, and children lie reeking on the floor, exchanging caresses and echinococci; it is the smell of the wet stockings and the woollen shirts which hang to dry next to a slice of dried halibut. ..... And if you poke your nose into the corners of the badstofa you will find a bucket in which the urine of the whole party is gathered; it is considered good for wool-washing." Increase of civilisation has not done much for hygiene here. The fear the natives have of contagion, and the great epidemics, of small-pox in 1707 and of measles in 1846, which

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fell very heavily apparently on the lepers, were the main causes of the decrease of their numbers. Since then the numbers have increased again. The importance of contagion and the comparative non-importance of heredity is well brought out in Dr. Ehlers' series of cases. The island seems a small paradise for the epidemiologist. Family histories are known for many generations even among the very poor. "There may be a dozen persons who have left, for a shorter or longer period, the district where they were born; but the greater part of the Icelanders are born, live, and die in the same parish, a circumstance which is peculiarly favourable for epidemiological researches." He goes on to say, with a mixture of *naïveté* and daring which is refreshing in a prize essay, "The etiology of leprosy would be quite clear were it not for this *confounded* period of incubation, the duration of which is utterly unknown." In a short thirty-nine pages the author adds considerably to our information.

The second of the papers under review (Essay No. 3, by Dr. Impey) may be summed up as follows: 1. Leprosy has been known in the Cape Colony since the middle of the last century. 2. The disease has made rapid progress from the beginning of this century, but more especially during the last fifty years. 3. The Hottentots, of whom the Griquas are an offshoot, were, on account of their nomadic nature, the cause of the spread of the disease among the Bantu races. 4. The disease is much more prevalent in South Africa than is generally known.

The third paper (Essay No. 4, also by Dr. Impey), "On Spontaneous Recovery from Leprosy," is of exceeding interest. The author is at some pains to justify the use of the word "cured" in cases where leprosy previously active ceases to show any manifestations at all, the patient remaining of course maimed, but free from fresh leprous symptoms till death, which occurs from some other intercurrent disease. Cure in the wider sense of restoration to the *status quo ante* is impossible, not only in leprosy, but in many of the diseases with which we have to deal. Spontaneous recovery from leprosy in the sense of complete arrest till death is sufficiently worthy of attention. Such spontaneous recovery takes place only in cases of anæsthetic leprosy, never in tuberculous or mixed or syphilitic forms. Dr. Impey by many figures sets down the average duration of the anæsthetic form at about six years; "it may end fatally or otherwise in about six years, or it may continue a little longer, but so far as my experience goes in the anæsthetic form of the leprosy the maximum duration of the disease is about eleven years from the time that the first symptoms appear, or, including the incubatory period, about thirteen years. With few exceptions all the cases which exceed this period are no longer lepers." He tabulates 101 such "cured" patients in the Robben Island Hospital who had had the disease more than eleven years. They are all maimed. Seventy-two are entirely free from active symptoms or ulceration; in one alone there is still true leprous ulcerative process going on; in twenty-eight there is perforating ulcer of one or both feet. For reasons which are carefully discussed Dr. Impey is inclined to draw a clear distinction between the perforating ulcer of the foot and true leprous ulceration. Leaving out, however, the cases of perforating ulcer 7 per cent. of the anæsthetic cases became "cured"; including the cases of perforating ulcer the number is, of course, larger. That the word "cured" is justly applied is shown by the fact that the bacillus has disappeared, that wounds of the anæsthetic parts heal in the ordinary manner and do not become leprous, and that none of the self-cured cases die of or from the results of leprosy. The point is, of course, a most important one, as if the patient is in reality cured at the end of eleven or twelve years, it is as unjust to keep him segregated as it would be to keep an ex-small-pox patient at the hospital ships after his recovery. Further investigation is needed, but the value of the last of these essays cannot be exaggerated.

Medical Diagnosis: with Special Reference to Practical Medicine. By J. M. DA COSTA, M.D., LL.D. Eighth edition. London: Smith, Elder, and Co. 1896. Price 24*s*.

PERHAPS the most interesting fact connected with this well-known work is the date appended to the "Extract from the Preface to the First Edition," which is appropriately reproduced in this the eighth edition. It carries us back to 1864, when the book must have almost stood alone in a field which has since then become crowded with works of a similar class. But Da Costa's "Diagnosis," if the forerunner, is still amongst the foremost, and it says much for its genuine merit that it should have maintained this enviable position during a period full of fresh additions to the methods of diagnosis and new facts in our knowledge of disease. It is thus manifest that it must have undergone careful and extended revision with every succeeding edition, so that if it has grown in bulk it has retained the favour of the clinical observer who from the first recognised the value of its teaching and the practically useful knowledge that it imparts. No doubt much of the estimation in which Dr. Da Costa's work is held has been owing to the highly instructive method in which he deals with the subject. He does not—as many such text-books do—merely deal with the signs and symptoms of diseases in groups, but takes each system of diseases in turn, and dwells upon the points of differential diagnosis between affections that have one or more features in common. The utility of this method must be apparent to all, and it is this which makes the book one of extreme value to those who are engaged in actual practice. Take, for example, the chapter on Diseases of the Intestines and Peritoneum. Opening with practical instructions upon the character and import of alvine discharges, it next deals with Diseases attended with Paroxysms of Pain referred chiefly to the Middle or Lower part of the Abdomen, and not associated with marked Tenderness or with Fever; here we find the different forms of "colic" described, and then the differential characters of no less than ten other conditions characterised by this one symptom. In the next place are described Diseases attended with Pain and Marked Tenderness in the Umbilical Region or diffused over the Abdomen, as acute enteritis, acute peritonitis, and the affections liable to be confounded with the latter. The next section deals with Diseases attended with Pain and Tenderness in the Right Iliac Fossa, typified by appendicitis, and here again numerous conditions that simulate it are detailed. The remaining sections of this chapter treat of Disorders attended with Constipation, and of which it is a Prominent Symptom, Disorders in which Morbid Discharges from the Bowels Occur, and Diseases attended with Vomiting and Purging. We have selected this chapter at random merely to indicate the plan upon which the book is drawn up. A similar plan obtains in each department of the subject, and it is superfluous to add that the actual matter is thoroughly sound and enlightened.

Many years ago we remember an accomplished physician (since deceased) expressing the opinion that Dr. Da Costa's "Medical Diagnosis" was unrivalled both in its scope and in the sound practical instruction that it conveys. That it may long continue to earn such praise and that its distinguished author may have to supervise many another edition must be the hope of all who value good and useful medical literature.

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Illustrations of Pathological Anatomy, with Descriptive Text. By Professor A. KAST and Dr. T. RUMPEL. English edition, revised and edited by M. ARMAND RUFFER, M.D. Oxon. Parts IX. to XII. London: Baillière, Tindall, and Cox. Price, twelve parts, 48*s.*; single parts, 5*s.*; single plates, 1*s.* 6*d.* each.

THESE instalments of a series of faithfully executed coloured drawings contain many plates which should be welcome to the teacher of morbid anatomy. The fact that they can be obtained singly is also of advantage, since it is thus possible for a selection to be made of those drawings that are most typical and representative. At the same time no doubt few will be content with isolated samples, but will prefer to possess the complete series, which embraces all the chief morbid conditions met with in the post-mortem room. The drawings have in every instance been made from recent specimens, and they have been very well reproduced in the chromo-lithographs. Amongst those given in the present parts attention may be drawn to the two specimens of "struma suprarenalis"—one from a case of pneumonia and the other from one of tuberculosis in which no symptoms of Addison's disease occurred. The former specimen represents granular swelling of the cortex, with fatty degeneration and hæmorrhage; the latter shows a caseous mass entirely replacing the capsule. There is an excellent drawing of "acute suppurative meningitis," and another of "tuberculous meningitis." In Part XI. the liver from a case of phosphorus poisoning may be contrasted with two specimens of acute yellow atrophy, one of the latter showing somewhat unusual characters. Part XII. contains three excellent representations of malignant disease of the stomach, together with a fourth plate showing the varicosity of œsophageal veins in hepatic cirrhosis. The accompanying text is somewhat meagre and is, moreover, not very carefully translated.

We have received from Mr. Henry Sell of Fleet-street a copy of the sixteenth annual issue of *Sell's World's Press*, a most useful and indispensable publication to all associated with the press; also a copy of *Sell's Directory of Registered Telegraphic Addresses*, giving a list of some 50,000 firms having such abbreviated addresses, together with their telephone numbers. The two volumes are a credit to the enterprise of Mr. Sell.

Analytical Records
FROM
THE LANCET LABORATORY.

(1) CONCENTRATED PEPTONISED MILK; (2) PEPTONISED COCOA AND MILK; (3) PEPTONISED MILK AND COFFEE.

(SAVORY AND MOORE, 143, NEW BOND-STREET, W.)

THE recent addition of peptonised milk and coffee (café zylak) to the excellent list of peptonised preparations which have long been associated with the names of Messrs. Savory and Moore affords a fitting and valuable completion of the group. A spoonful of café zylak stirred into hot water affords at once a nutritious and pleasant beverage possessing the estimable qualities of aroma and flavour of well-made and freshly-prepared coffee; nor are these its only satisfactory features, since it contains also a distinct amount of the restoring and stimulating principles represented chiefly in the alkaloid caffeine. We easily succeeded in obtaining crystals of the substance on extraction with chloroform previously to the removal of the other bodies by well-known means. We could trace no preservatives except sugar, which renders the preparation sweet—perhaps too sweet to some tastes. That the preparation is rapidly available as a nutrient is probable from the fact that separation of peptones was effected by the addition of alcohol and subsequent purification, so that the reactions of pure peptone were obtained. It exhibits, therefore, the composition of a powerful food, which needs little effort on the part of the digestive functions to be utilised. The preparations of peptonised milk and of milk with cocoa have been improved. In these also we recognised peptones, and the entire absence of all bitter taste gives evidence of the care with which the peptonising process is conducted. The proteids do not curdle on the addition of acids. It is satisfactory to add that the fat of the milk has not been eliminated, for we found nearly 12 per cent. in the pure milk preparation. These results are excellent and give evidence of the indisputable worth of these special foods.

(1) EMBLIC FRUIT AND CONFECTION; (2) ERYTHROL NITRATE CHOCOLATE TABLETS.

(WILLIAM MARTINDALE, 10, NEW CAVENDISH-STREET, W.)

The fruit of phyllanthus emblica is suggested as an agreeable laxative. We have received some preserved specimens which have the appearance of small greengages. The fruit is pulpy and the juice, which is acidulous, is said to exert a cooling refrigerant besides a laxative effect. It is used in India also to promote appetite and as an aid after meals in atonic dyspepsia. The preparation affords a convenient and pleasant means of administering a mild purgative to children, either in the form of whole fruit or as a paste or confection. Erythrol tetra-nitrate is, according to Professor Bradbury,[1] a most valuable and safe vaso-dilator. It appears to be soluble in fats, notably the fat of chocolate, which serves therefore as an excellent vehicle for its administration. Erythrol nitrate is recommended particularly in reducing high arterial tension and as affording a safe and effective means of diminishing blood pressure.

CHINOSOL.

(B. KÜHN, 36, ST. MARY-AT-HILL, E.C.)

In view of the many advantages which it presents chinosol promises to become of special service as an antiseptic, disinfectant, and deodorant. It is, for example, not caustic or corrosive, is readily and quickly diffusible, does not coagulate albumin, and yet is not poisonous. A solution of 1 in 40,000 is sufficient, it is said, to check the development of the pus organism (staphylococcus pyogenes aureus), while carbolic acid of 1 per 1000 strength is uncertain. It is a fine powder of bright yellow colour, soluble in cold water, and possesses only a slight aromatic odour. With small provocation, as with the slight alkaline fluids of the body, oxychinoline is set free, and it is this substance probably which renders chinosol prompt and powerful as an antiseptic. Chinosol may be had in powder, tablets, and may also be applied on gauze or absorbent cloth. It is well spoken of in gynæcological and dermatological practice.

ADEPS LANÆ (N. W. K.), HYDROUS AND ANHYDROUS.

(T. CHRISTY AND CO., 26, LIME-STREET, E.C.)

Adeps lanæ (N. W. K.) possesses a distinctly lower melting point than that mentioned for wool fat in the Pharmacopœia. It is accordingly more supple and soft, and may be manipulated without the addition of water if required. I absorbs water, however, to a very large extent, as our experiments have shown. We found the melting point to lie between 96° and 97° F., whereas the Pharmacopœia states that the melting point of wool fat should be between 100° and 112°. Adeps lanæ is of admirable purity and particularly well adapted for the purposes of an unguent, being readily absorbed, while it is not prone to rancidity.

PERIO, A SOAP SUBSTITUTE.

(THE PERIO COMPANY, STATION-APPROACH, LEWISHAM, S.E.)

Perio is not a soap, but withal an excellent detergent.

[1] See Bradshaw Lecture, THE LANCET, Nov. 16th, 1895.

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It cleanses beneficially and harmlessly and imparts softness of feeling to the skin. With water it forms a kind of paste which appears to dissolve, and in rubbing the hands with the resulting liquid dirt is certainly removed and an agreeable clean sensation is experienced. Under the microscope starch cells could be seen in abundance, and on adding hydrochloric acid the powder effervesced, but no fat separated. On incineration it yielded an ash in tolerable quantity, which contained carbonates, chiefly in combination, as the spectroscope showed, with potassium. Perio is agreeably scented and affords an excellent substitute for soap, especially where very sensitive skins are concerned.

(1) EXTRACTUM SANTALI SOLUBILE (BELL); (2) AROMATIC SOLUTION OF TAR.

(JOHN BELL AND CO., 225, OXFORD-STREET, W.)

Liquid extract of sandal wood has been prepared with the view of obviating the unpleasant eructations and gastro-intestinal irritation commonly produced by sandal-wood oil, but characteristic of most oleo resins, although in this respect oleum santali, as is well known, is more easily taken than copaiba. The liquid extract (Bell) possesses the usual characters of the oil and is a dark-brown spirituous solution which mixes well with water and other liquids. It should be useful in inflammatory affections of the bladder and urethra, especially in gonorrhœa; while now that the oleo resins have been excluded it should be available in diminishing and disinfecting the profuse and fetid expectoration often met with in chronic bronchitis. The liquor picis aromaticus is rightly described as aromatic, though the tar constituents, among which are guaiacol and creasol, are still very evident to the taste. It is a decided improvement on ordinary pix liquids and used as a remote disinfectant and deodorant in fetid discharges from the bronchi and lungs is doubtless more effective. It may also be employed for purposes of inhalation.

LLANGAMMARCH SODA-WATER AND AERATED BARIUM WATER.

(THE LLANGAMMARCH WELLS MINERAL WATER CO., LLANGAMMARCH WELLS, CENTRAL WALES.)

Llangammarch in Central Wales is most favourably situated for the manufacture of pure aerated waters. There is an abundant supply of pure spring water which comes from an absolutely uncontaminated source high up on the hills. It contains only 6 grains of dissolved solid matter per gallon, which consists entirely of mineral salts. The water is soft, brilliantly clear, and fresh to the palate. It is free from organic matter and bacterial impurity. On analysis we found the soda-water to be equally satisfactory in regard to purity. It yielded absolutely no free ammonia and only traces of albuminoid ammonia, no nitrogen in the form of nitrate, and only 0·77 gr. per gallon of chlorine in chlorides. Its antacid properties are equivalent, we found, to 3½ gr. of bicarbonate of soda per pint. We are glad to find that the makers recognise the necessity of providing against metallic contamination by adopting syphons with porcelain-lined delivery tubes. Particularly is this a necessary precaution when the water, as in the present case, is of exceptional purity. Further evidence of the company's endeavours to keep their aerated beverages free from impurity is furnished by the fact that the aerated barium water is also bottled in porcelain-lined syphons. This interesting water was the subject of analysis and report in THE LANCET of Nov. 24th, 1894. It is clean to the palate and pleasantly sparkling. The quantity of barium is remarkably constant, a fact which makes the drinking of it for medicinal purposes quite safe. Thus in 1883 Dr. Dupré found 6·26 gr. of barium chloride per gallon; in 1894 we found 6·4 gr. per gallon; and the present aerated sample was found to contain exactly 6 gr. per gallon. The quantity of barium chloride therefore has not varied more than a fifth of a grain per gallon during twelve years. The water has lately been used with favourable results as a cardiac tonic, the barium exerting an effect like digitalis in slackening and reducing the heart-beat and augmenting the amplitude of the pulse, without, however, undue increase of the internal pressure. The pump-house and baths at Llangammarch have, we learn, recently been remodelled for the better accommodation of patients who desire to go through a course of treatment with barium internally and externally, and these have been now supplemented at the hotel by the addition of facilities for applying the method employed by Dr. Schott at Nauheim for the relief of gout, rheumatism, and affections of the heart.

New Inventions.

THE PHONENDOSCOPE.

IN THE LANCET of Nov. 25th, 1882, there appeared an interesting account by Dr. Wilks of the "Evolution of the Stethoscope" from the historic roll of a few sheets of note-paper which gave Laennec the idea of mediate auscultation to the most highly finished "binaural" of to-day. Another step in this interesting application of acoustics to the service of clinical medicine has been made in the instrument before us, to which the somewhat fanciful name of "phonendoscope" has been given. It is the invention of Professor Eugenio Bazzi and Professor Aurelio Bianchi, and, as is the case with most new inventions, the claims advanced in support of its superiority over the stethoscope are, to say the least, somewhat startling. In the descriptive circular which accompanies the apparatus we are told that "the phonendoscope is useful for hearing: 1. The sound of the respiratory organs, of the circulation of the blood, and of the digestive organs in the healthy body as well as in the sick subject. 2. The sounds made by the muscles, joints, and bones. 3. The sounds in the matrix at the time of pregnancy and the noise provoked by the fœtus. 4. The sound of the capillary circulation. 5. The slightest sound produced in any diseased condition of the body; hence it is possible to draw on the body the dimensions, the position or any alteration in the position of the various organs and of the fluids which have gathered in the most important cavities of the body. 6. The sounds in the ear, the eye, the bladder, the stomach, and the intestines." We can only say that if all this be true, then the instrument is indeed an acquisition, and its employment will necessitate the expansion of treatises on auscultation to new fields of research. Perhaps to ascertain all the sounds above enumerated requires prolonged and special training in the use of the phonendoscope, but all that we have been able to do in a comparatively brief acquaintance with the instrument is to carefully test its conducting powers in comparison with those of the ordinary stethoscope. This trial has resulted in a verdict in favour of the new invention as a superior conducting medium of the sounds of the heart and lungs, normal and abnormal; although even this statement must be guarded by the admission that if the observer is not careful he is liable to get confused by adventitious sounds created by the instrument itself. Its best service will probably be found in the detection of faint murmurs and in the readiness with which the heart sounds can be heard through several layers of clothing.

Two-fifths of natural size.

The instrument consists of a circular flat metal box or tympanum (C) having on its one surface two apertures for the attachment of the rubber ear-tubes, whilst the other surface is formed by a thin disc which is readily thrown into vibration. The best results are obtained by simply applying this disc to the surface to be examined. By an ingenious contrivance a second disc (B) can be superposed upon this one and a vulcanite rod (A) attached to the

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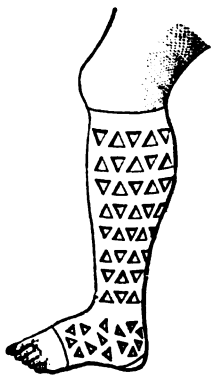
former, so that the area of auscultation may be extremely circumscribed. The conduction of the sounds is only slightly diminished by the use of this rod, which thus combines the principle of the solid stethoscope with that of the tympanum. The rod furnished with the instrument is about two inches in length, but it is stated that there are other rods of various lengths to enable the "phonendoscopist" to receive sound-vibrations from the natural cavities which communicate with the exterior of the body. Altogether we consider the instrument highly ingenious, carefully and compactly constructed, useful as an aid to auscultation, but yet not likely to entirely supersede the use of the stethoscope. It may also be found useful in class demonstration, since it would be easy by means of branched tubes to enable several persons to listen at the same time. The agents for the phonendoscope in this country are Messrs. Brady and Martin of Newcastle-on-Tyne.

THE "VARILAT" LATTICE ELASTIC STOCKING AND LEGGING.

THE "Varilat" Lattice Elastic Stocking and Legging is made all in one piece, without any woven or interlaced arrangement, the material being red indiarubber formed into a fine and soft sheet. Triangular holes three-quarters of an inch on each of their sides are cut in the rubber sheet, leaving interspaces about half an inch wide which give the necessary support to the limb, while the holes permit free access of air to the skin and escape of moisture. The "Varilat" articles are durable and comfortable to wear and impart a very equable pressure; there is also a probability that they tend to protect the indurated and thickened portions of the varicose veins. They are very cleanly in use, as they may be washed freely without injury. The "Varilat" principle has, it is stated, stood the test of seven years' practical use, and anklets, knee-caps, thigh-pieces, leggings, and stockings are made in this material. The manufacturers are the "Varilat" Lattice Elastic Stocking Company, 70, Fenchurch-street, E.C.



ARMY MEDICAL REPORT FOR 1894.

(SECOND NOTICE.[1])

THE average strength of the troops serving in the United Kingdom during 1894 was 99,360, with an additional 2,481 as the computed average number of men detached from their corps. The following table gives the most important of the statistics of sickness and mortality among the troops quartered in the three great divisions of the kingdom.

1894.	Average strength.	Ratios per 1000 of strength. Admissions.	Deaths.*	Invaliding.*	Constantly sick.	Average sick time to each soldier.	Average duration of each case of sickness.
						Days.	Days.
England and Wales	71,355	680·3	3·48	18·22	42·96	15·68	23·05
Scotland	3550	586·8	6·15	18·17	29·59	10·80	18·41
Ireland	24,455	594·6	3·99	13·57	36·56	13·34	22·44
United Kingdom	99,360	655·9	3·70	17·06	40 91	14·93	22·77

* Calculated on strength, including men detached (England and Wales, 1349; Scotland, 27; Ireland, 1105), 2481 in number.

These ratios compare favourably with those of the previous year. There were 11 cases of small-pox in 1894 as compared with 8 in the previous year and 6 as the average number for the preceding eight years; 5 out of the 11 cases occurred at Maidstone, where the disease appears to have been introduced by a militiaman coming up for training. Scarlet fever caused 233 admissions and 3 deaths, being considerably less than the corresponding figures for 1893. The admissions for enteric fever in 1894 numbered 124, with 21 deaths, giving ratios per 1000 which, as regards admission-rate, correspond with the average rate of the preceding ten years, and as regards mortality a rate somewhat below that of the decennial average. Not one of the administrative districts was free from this disease, which appeared in thirty-six stations altogether. The greatest prevalence of this fever was in Dublin, where a great improvement is nevertheless shown in 1894 as compared with previous years. A serious attack of this disease occurred at Caterham—21 cases and 2 deaths. "The water-supply, which was derived from the neighbouring Metropolitan Asylum well, was discovered to be contaminated with sewage; the use of this water was at once discontinued and a supply obtained from the East Surrey Waterworks, when the admissions ceased. An outbreak also occurred amongst the inmates of the asylum, which confirms the opinion that this was the source of the disease."

As regards venereal diseases the admission-rate for primary syphilis gave a ratio equal to 47·7 per 1000, which is lower than the corresponding rate of the previous year by 9·2 and below the average of the preceding eight years by 30·2. The admissions for secondary syphilis in the United Kingdom were 3446 and there were 6 deaths.

There were 23 cases of suicide amongst the troops serving at home in 1894, as compared with 24 in the preceding year and an average of 21 for the previous ten years. The average age of the men was twenty-eight and their average service eight years. The loss in the German army—that of the North especially—from suicide is, we believe, much higher than that of our own army.

At page 18 of the report will be found a table showing the statistics of sickness and mortality among troops quartered in large camps as compared with those of troops quartered in forty large towns. The figures give somewhat more favourable results, as might be anticipated, in the case of the former—those quartered in camps. As compared with the preceding year there is a decrease in the admission-, death-, and constantly-sick rates in the case of troops in both camps and towns. Another table gives the health statistics of different arms of the Service for 1894 and for the previous ten years. The highest admission-rate in any arm of the Service in 1894 was in the Infantry and Footguards; the highest mortality-rate was in the Regimental depôts and in the Royal Artillery, the lowest in the Cavalry; invaliding was highest in the Footguards and lowest in the Royal Engineers; constant inefficiency from sickness was also highest in the Footguards and lowest in the Royal Engineers and Regimental depôts.

As regards recruiting, we may say that the number of recruits inspected in 1894 was 61,985; of these 25.074 were found to be unfit, equal to a ratio of 404·51 per 1000. The remaining 36,911, or 595·49 per 1000, were found fit for the Service. By far the greatest number of recruits were between eighteen and nineteen years of age.

Among the remarks as to the sanitary conditions of the home stations we notice that at Netley it is reported that ten cases of erysipelas occurred among the foreign invalids in that hospital during the year, and were attributed among other causes to bad and defective flooring. On a recommendation of the Army Sanitary Committee the floor of the surgical division was relaid and the latrines were reconstructed on an improved system. In the Aldershot Division Surgeon-Major-General Paterson, while reporting that the year had been a healthy one and that there were no special causes at work in the production of disease, calls attention to the very inadequate amount of hospital accommodation provided for the requirements of the camp, to the need for new and additional hospital provision for infectious diseases, and for the provision also of a hospital for the soldiers' families. He likewise alludes to the present sewage farm as a menace to the health of the camp. The construction of new barrack buildings and their accessories and works for improving the sewerage and drainage of the camp have been actively progressing of late years with a corresponding result in a reduction of the amount of preventable disease.

This finishes our brief analysis of the more salient points of the report as far as the troops quartered in the United Kingdom are concerned, and it only now remains to consider those sections which deal with foreign stations and the papers contained in the appendix to the report under review.

1 The First Notice was published in THE LANCET of Feb. 22nd, 1896.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 29, 1896.

THE glycogenic function of the liver has, almost from the date of its enunciation by CLAUDE BERNARD, found a consistent opponent in Dr. PAVY, who has worked with unremitting devotion to prove that this view is physiologically unsound. The subject is one of more than academic interest, for it lies at the foundation of the pathology of diabetes, besides being perhaps the most important of the questions concerning animal nutrition. In his recent work on the "Physiology of the Carbohydrates."[1] Dr. PAVY has formulated a distinct alternative to the generally accepted doctrine, and has declared that in consequence of the facts of his observation and experience "the views which have prevailed since the promulgation of the doctrine giving to the liver a glycogenic function must be absolutely abandoned. The edifice has been constructed upon a false foundation, and nothing short of its complete demolition will suffice to meet the requirements of physiological truth." So bold and uncompromising an attack upon the citadel of orthodox physiology was bound to be challenged, and no better champion could be found than Dr. NOËL PATON, who quite recently, working at the subject of hepatic glycogenesis, had declared: "The theory of PAVY, repeated in nearly every text-book, that the liver is a sugar-destroying and not a sugar-forming organ, rests on so unsubstantial a basis and has been so completely refuted by the work of SEEGEN and other investigators that it need not be considered." It will be seen at once how totally irreconcilable must be the views held on this subject by these two writers, since each describes the other's doctrine in almost identical terms as being ill supported by facts. Dr. PATON'S criticism,[2] which called attention to the work of others that had apparently been ignored by Dr. PAVY, elicited from the latter a rejoinder which to the uninitiated must appear as out of all proportion to the article with which it deals. In this "Epicriticism"[3] Dr. PAVY minutely dissects Dr. PATON'S article, taking it almost line by line and treating it with hardly the dispassionate calmness generally expected of science. The publication of this "Epicriticism," however, affords the opportunity for a restatement of its author's views and their comparison with those they seek to replace. It is possible that had its tone been different the controversy would have been closed, but we can quite understand that Dr. PATON felt it incumbent on him to make a further reply,[4] and for aught we know the dispute may be prolonged to the Greek Kalends.

The glycogenic doctrine implies that during life there is a constant conversion of glycogen into sugar taking place in the liver, but that the process is so regulated that only a sufficient supply of sugar is furnished to the general circulation as is required by the needs of the body. Dr. PAVY denies that this does occur. He affirms that there is no proof that this conversion takes place during life, although immediately after death the liberation of a ferment operates in transforming the hepatic glycogen into sugar with increasing rapidity. According to him the hepatic blood contains a smaller amount of sugar than the portal blood, and, moreover, if this amount in the general circulation became at all increased it would soon appear in the urine. One of the long-standing points of difference between these two views rests upon the actual amount of sugar in the general circulation, and on this point the statements are irreconcilable; whilst the question is still further complicated by the well-known researches of LÉPINE, which suggested that the pancreas by its internal secretion of a glycolytic ferment prevents the accumulation of sugar in the blood, and therefore prevents the occurrence of glycosuria. It must not, however, be supposed that the glycogenic doctrine necessarily requires the assistance of this pancreatic ferment to account for the removal of excess of sugar from the circulation. It is averred that the sugar is utilised in various ways in the economy, part of it, perhaps, being again converted into glycogen in the muscles and organs. Dr. PAVY, in arriving at the conclusion that proteid matter contains a carbohydrate molecule which under certain conditions can be "cleaved off" from the former, points to another possible destination of glycogen than by its change into sugar. If, as he says, the proteid can be broken up to yield carbohydrate, so conversely under the influence of living protoplasm the proteid can be built up again by a process of synthesis with its carbohydrate constituent. Nor can we find that any serious objection is taken to his views on this point, which he has further strengthened by an appeal to the processes of vegetable physiology.

It is in regard to diabetes that the conflict of these two opposing views comes to be most prominent. On the glycogenic doctrine this disease is to be mainly ascribed to failure of the liver to arrest ingested carbohydrate or to the excessive and perverted performance of its glycogenic function. In either case an undue amount of sugar gains entrance into the general circulation and is excreted by the kidneys. At the same time it is admitted that some share may be taken in the production of the diabetic state by pancreatic derangement, and Dr. PATON refers to KAUFMANN'S experiments on glycosuria following puncture of the floor of the fourth ventricle as showing that this procedure may have the double effect of stimulating the formation of sugar in the liver and inhibiting the internal secretion of the pancreatic (glycolytic) ferment. In Dr. PAVY'S thesis the explanation of the occurrence of diabetes is simpler, since it does away with the active share taken by the liver in the formation of sugar. According to him the ingested carbohydrate, derived from the carbohydrates of food and from peptones, is in health partly converted into fat in the intestinal epithelium and partly into glycogen in the liver, and that the failure to so convert it will lead to the general circulation being overladen with sugar, which is at once eliminated by the kidneys. But he too recognises that in severe cases sugar finds its way into the circulation from the tissues themselves, being "cleaved off" from the proteid molecules in a manner analogous to what he believes to occur

[1] Churchill, 1894.
[2] Edinburgh Medical Journal, Dec., 1894.
[3] London: Churchill, 1895.
[4] Edinburgh Medical Journal, Feb., 1896.

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in the process of proteid digestion. As regards pancreatic glycolysis, the position assumed by Dr. PAVY seems to us to be this. Rejecting the theory that any such glycolysis does take place in the blood—for if there were an excess of sugar which required to be so got rid of it would be made manifest in the urine—he leads us to infer that extirpation of the pancreas causes glycosuria by the withdrawal of its influence in digestion. We may have misunderstood his argument here, but at any rate this seems to be almost the only alternative to the ingenious hypothesis of LÉPINE, which Dr. PAVY declares not to be "in touch with the requirements of physiology." We do not think it would be profitable to enter into the minute details of methods and observations which are advanced on either side in support of their respective contentions. Dr. PATON is firmly convinced that the vital action of the hepatic cells is largely concerned in the metamorphosis of glycogen into sugar, which is carried away in the general circulation to be disposed of in various ways, many of which are, to say the least, still hypothetical. Dr. PAVY is just as certain that no such formation of sugar takes place in the liver under normal conditions, and further claims to have shown that the destiny of carbohydrate matter in the body is in part to be stored as glycogen, in part to be converted into fat, and yet again in part to enter into the formation of proteid material. It is possible to afford a reasonable explanation of diabetes on either doctrine; but for the physiologist the subject involves the determination of the actual processes that go on in the healthy living body, and to arrive at this end it is essential that observations and experiments should be thoroughly made and carefully scrutinised. In science the work of every investigator must be controlled by that of others, and until there is attained a general concordance of opinion it would be rash to accept either one view or the other as embracing the whole truth.

THE usurpation of functions other than clerical by ecclesiastics is exciting a great deal of indignation among the legitimate practitioners of medicine and surgery in France and on the Continent generally. The most notorious ecclesiastical medicaster in Europe at the present day is apparently the Abbé KNEIPP, whose establishments are said to be so numerous in Switzerland that for want of room he has been obliged to locate the more recently opened ones in France. It has been calculated, says a writer in a German paper, that police magistrates dispose of a prisoner per minute on the average; the Abbé KNEIPP does business at a far more rapid rate than that. His record at Worishofen, which has the honour of being his headquarters, is no less than two and a half patients per minute! Seated in a large and comfortable *fauteuil* at a table of portentous size and smoking a huge cigar the Abbé dictates his prescriptions to an assistant with the most solemn air imaginable, while the sick multitude, men, women, and children, pass in Indian file before him at a rapid pace. In an hour and a quarter he can thus easily dispose of 180 patients. He makes no pretence of examining them, and merely asks a question or two as a matter of form, for his treatment never varies. No matter what the complaint may be, whether an affection of the uterus or hæmorrhoids, a complication following on syphilis or an acute orchitis the result of gonorrhœa, the invariable formula is cold-water bathing and barefoot promenades in damp grass. Only in the case of eye affections does this ecclesiastical healer authorise a departure from his stereotyped method of treatment. When the ocular apparatus is at fault he directs the application of an ointment made from honey and (that refuge of the charlatan) "medicinal plants." A less notorious clerical medical practitioner is the *curé* of Sens, who rejoices in the name of CRUP. At the extensive sanatorium organised by this enterprising clergyman cases of coxalgia, Pott's diseases, paralysis, &c., no matter how severe or advanced, are taken in and cured, or said to be. In order to avoid the long arm of the law M. CRUP has contrived to attach a surgeon to his establishment.

Not long ago we mentioned the case of a *curé* who performed Cæsarean section on a woman before it was quite certain she was dead, and several other instances, well-nigh as flagrant, are related by some of our foreign contemporaries. *Apropos* of the penalty inflicted upon a certain Abbé COYON of Festigny, who was fined 200 francs for treating a great number of sick people with potions prepared by him whereof the exact composition could not be determined and which were designated white *tisane* or yellow *tisane*, a writer in the *Journal de Médecine de Paris*[1] makes the following comment: "It might be supposed that in face of these facts, which are of frequent recurrence because the delinquents are condemned to such paltry fines that it merely serves to augment their popularity, the ecclesiastical authorities would take steps to interdict the exercise of medicine to *curés* and Sisters of Mercy. Well, all I can say is that whoever thinks our bishops are going to put a stop to this profitable business is mightily mistaken." Writing to the same journal Dr. MERVEILLE draws attention to a paragraph in a lay paper of good repute which is evidently intended to be taken seriously. "*A Good Idea.*—One of our readers has made a suggestion to which we desire to draw special attention as it is worthy of the most serious consideration. Inasmuch as in most rural districts there is a sad lack of medical men it is indispensably necessary that our young seminarists should attend courses of medicine and pharmacy, so that when the time comes for them to be appointed *curés* they may be able to afford medical aid to the sick. The *curé* of Kerkom, a small parish of Brabant, M. de GREEF, who died lately, was a doctor after a fashion and kept up in his house a small pharmacy. In this way he was of incalculable benefit to his flock. His case might be multiplied in every direction if only the idea of our correspondent could be given effect to."

The offices of the priest and the medical man were at one time generally, and are even now among certain tribes, combined in one person. When an individual was taken ill he was supposed to be inhabited by a demon. The priest medicine-man was sent for, and, attired in a special costume calculated to impress the devil, the patient, and the patient's friends with an idea of his importance and powers, he howled, danced, rattled bones, thumped the mystic drum, and twirled the bull roarer, singing at intervals the appropriate

[1] Jan. 19th, 1896.

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songs. This "bedside manner" was quite in accordance with the times in which he lived. Nowadays, though, antics of this sort are confined to irregular spiritual and medical practitioners. We are surprised to find, however, that the Roman Church should wish to combine the healing of souls with the healing of the body. That the one reacts on the other is a fact patent to all, but unless a priest is also a duly qualified medical man he should not be allowed to practise medicine. Of course we would except the case of missionaries in out-of-the-way countries, but in a land like Belgium or France the idea is absurd. Even in England we find that the "clergy and ministers of all denominations" do not always appreciate orthodox medicine at its full value, for advertisements of quack medicines are generally accompanied by a testimonial from a "minister." But if such things as we have mentioned are done in the green tree of the Church, what can be expected of those under the branches of the dry tree "extra ecclesiam"?

IF we are in any danger of forgetting the many-sidedness of the profession the lay press may be trusted to remind us of it. The *Quarterly Review*, for example, has lately touched on the various requisites that should be met with in the medical man if he would emulate the distinction, social, literary, and political, as well as scientific and professional, achieved by the great consultants of the past, and holds up to us the career of Sir HENRY HALFORD as combining the merits which conciliate acceptance with the lay world while in no wise detracting from special claims to the confidence of experts. Sir HENRY HALFORD was not only a physician who "succeeded in getting his patients well," and was appreciated in professional consultation accordingly; but he had the versatile culture, the winning address, and the power of interesting himself in current topics that qualify for social popularity and earn favour in high places. In the course of a brilliant review of Dr. MUNK'S recent life of Sir HENRY HALFORD the *Quarterly* supplements from personal knowledge the qualities omitted by the biographer as contributing to their common hero's success, and dwells at considerable length on the literary, especially the classical, attainments which constitute him the true "ultimus Romanorum" as well as the "Chesterfield of physicians." Without, perhaps, intending it, the Reviewer opens up the *vexata quæstio* of what medical education should be, and obviously inclines to a resuscitation of the studies almost wholly abandoned by the medical student in favour of others more "practical" and more modern.

"A great physician," in the Reviewer's eyes, "is a great artist"—one who can read the expression of disease and estimate its character in patients in whom the "mere man of the laboratory," as he calls him, can see nothing. In Sir HENRY HALFORD'S case, as in that of many another fortunate practitioner, such as SYDENHAM, it may be questionable whether the training in physics or in nature-study, now so universally demanded from the medical student, would have added to his undoubted success in treatment. To such a man the experience of the bedside and the sick-room was all in all, while the humanistic studies in vogue at the universities supplied the intellectual breadth, refinement, and catholicity which temper the narrowness apt to spring from professional concentration. A mental balance was thus attained from which the special faculties applied to medicine could not but benefit, and the Reviewer certainly makes out a strong case for such training as it was exemplified in Sir HENRY HALFORD. But, after all, the distinctive note in Sir HENRY HALFORD'S combination of gifts was the *mens medica*, without which the great Dublin physician, Dr. WILLIAM STOKES, maintained that no student, however diligent, could ever rise above mediocrity. *Medicus nascitur non fit*, and the profession, like its sisters divinity and law, is full of failures illustrative of the axiom. At the same time, it has its various degrees of usefulness in which the mediocre practitioner has his place as well as the "great artist" of the Reviewer's admiration; and we think it will be conceded that in the former case the scheme of study should be so adjusted as to give the student the best chance of making the most of his powers. This is all the most strenuous advocate of the "modern side" in public schools would contend for. Professor HUXLEY when he denounced the "Latin fetich" was animated by no unenlightened depreciation of the classics. He himself, indeed, was at no small pains late in life to make good the defects of his early training in Greek and Roman literature.

There is one consideration, however, which may bring comfort to the enthusiast for classical training, while in no way detracting from the claims of physics or nature-study. Thanks to improved text-books and improved methods, a good working knowledge of Latin, and even of Greek, can be acquired nowadays in half the time which was necessary in Sir HENRY HALFORD'S day. Indeed, the *Quarterly* Reviewer indicates inaccuracies in Sir HENRY HALFORD'S Latinity which any sixth form boy at Westminster or Eton would avoid. The economy of time and trouble now secured to the young scholar can be utilised in the interests of science, which has itself profited similarly by improved manuals and methods of acquisition. Teachers of authority foresee the day when both departments of school training—the humanistic and the scientific—will come to complement, not to exclude, each other—a result which will be felt for good in every profession, conducing to larger intellectual sympathies in each and the provision of a common meeting ground for all. The theological and the legal professions cannot fail to benefit by the due recognition of science in their mental equipment; while as to the medical, the culture to be derived from an early initiation in the higher literature would (as the *Quarterly* reminds us) be simply a wholesome revival of an honourable tradition—the resuscitation of an advantage enjoyed by the HEBERDENS, the HALFORDS, the LATHAMS, and the WATSONS of a past generation, and still represented by the BACCELLIS and VIRCHOWS, the HUMPHRYS and RUSSELL REYNOLDS of our own.

KING'S COLLEGE HOSPITAL.—The annual meeting was held on Feb. 26th, the principal business being the adoption of the report, which showed an increase of 249 in-patients over the previous year and an increase in out-patients of 4187.

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Annotations.

"Ne quid nimis."

THE ROLL OF THE PROFESSION.

THE Roll of the Profession for 1896 is before us. We may at the outset congratulate the Registrar on the early appearance of the Medical Register — somewhere about Feb. 17th. We had a similar congratulation to offer last year, and on this occasion it appears even earlier. We are not without hope of seeing the Register appear early in January, and know no very clear reason why it should not do so. Considering the despatch which is shown by the officials of, and printers to, the Council during its actual sittings it is difficult to understand why a mere register should not be in a state of preparedness for publication during the first few days of the year. The time that elapses can make no difference in the actual facts, and should make very little in the collection of them, provided The Medical Register for 1896 contains the striking and unprecedented number of 33,601 medical men. If all these gentlemen practised in the United Kingdom with its population, say, 39,134,166, it would give to each practitioner a *clientèle* of 1164 or thereabouts. Fortunately ours is a widely spread and fairly populous empire, and the gentlemen whose names are on the Register practise in all parts of it—the colonies and India and in our naval and military services—to say nothing of foreign countries, in which they are by no means unrepresented. As a matter of fact, something over 6000 of the registered practitioners, or over one-fifth part, find their residence or their occupation in fields outside the United Kingdom. But even so, the numbers are somewhat appalling and they show no appreciable sign of any falling off. After subtracting the 6209 as practising beyond the United Kingdom, there remain 27,392 at home with a *clientèle* of 1428 persons. If we take the numbers on the Register for the last ten years it will be seen that they exceed those of the preceding years respectively by 454, 794, 693, 409, 815, 392, 1035, 1054, 993, and 964. These figures show that the average yearly increase in the number accruing to the Register during the first five of these years was 633, that for the last five years being 887. It is true that in the last year there was a slight falling off in the rate of increase, and that in the two last years there was less addition than in the preceding two. But when all allowances are made there is no ground for hoping that in any early years the great overcrowding of the profession will be remedied. This is made all the clearer when we pay attention to the new registrations rather than to the mere numbers on the Register. These are sometimes depleted by a somewhat wholesale, though only temporary, removal from the Register under Section 14 of the Medical Act, empowering the Registrar to remove from the Register the names of gentlemen who do not respond to his inquiries as to their present address. This is the explanation of an apparently small addition (392) to the Register in 1891, though there were actually 1345 new registrations. Last year 1446 was the number of new registrations, of which 731 were in England, 565 in Scotland, and 150 in Ireland. This exceeds the number in 1894 by 20, but it falls short of the average of five years by 16. The number of deaths in the profession is, happily, greatly less than that of the new additions. Last year it was according to the Register, 538. Strange to say it seems to be a diminishing number, for whereas in the last twenty years 56[illegible] died annually on an average, in the last five years the average has been only 536. It must, however, be understood that these figures are not accurate. It is scarcely conceivable that they should be so when the diffusion of the profession over the empire is considered. The Registrar to the General Medical Council uses diligence to get accurate information; the registrars of deaths have an inducement to supply it. But it would appear that success has not yet fully been attained, for the obituary published in the current Medical Directory gives a larger number of deaths. The Register also does not always contain the full description of a practitioner's titles or an accurate statement of address—even in the case of some who would be thought likely to forward such information to the Registrar. This is, of course, the fault of gentlemen themselves, whose description is thus inaccurate, but we are disposed to think that there is room for some innovation in the method of getting information. The Medical Register is the law and the testimony to which all must appeal in courts and in legal processes, and it is important that it should have the very last touches of accuracy, and that in this respect it should have no rival. It is satisfactory to notice that only one person was removed from the Register under the penal clauses in the year 1895. The penal powers of the Council are used sparingly—some think too sparingly. But it is, after all, no mean testimony to the honour and credit of a profession, much tried and often badly used, that only one out of its 33,601 has been removed from the Register under the penal clauses. We must leave this indispensable volume, with its stores of information in the shape of tables and copies of all the Medical Acts, to the study of our readers and of all who are interested in the status of the profession.

"FIXITY OF TENURE."

THE Incorporated Society of Medical Officers of Health has had before it for consideration a report by the council embodying certain resolutions prepared by a special committee on this important subject. The two main resolutions were: (1) "That in the opinion of your council it is desirable in the interests of public health that medical officers of health in the provinces should, subject to the approval of the Local Government Board, have the same fixity of tenure as medical officers in the metropolis; (2) that in the opinion of your council the Local Government Board should be asked to make fixity of tenure dependent on such an arrangement of sanitary areas and salaries as will secure medical officers of health of suitable qualifications and the carrying out of necessary sanitary improvements." At the meeting of the society held to discuss the council's report it was decided by a majority of one (10 votes to 9) to delete the second resolution. The effect is to resolve that fixity of tenure should be unconditional. We doubt whether this is quite a wise decision. It is certainly in the interests of sanitation that every health officer should be in a position to act without fear or favour, and, so far, the resolution is most commendable. But it is also in the interests of sanitation that administrative areas should be large and should be supervised by medical men who are not engaged in private practice. In some degree these two interests would clash if resolution No. 1 were carried into effect without qualification. The permanency of appointment of a single officer, with a small district and a small salary, might have the effect of preventing the creation of a large combined area to include all the small districts of the neighbourhood. In Scotland, under the Local Government Act of 1889, a very satisfactory way was found out of a similar difficulty. Power was given to abolish all or any local health appointments which were found unnecessary under the new system of large sanitary areas, but the abolition was in every case to be accompanied by such compensation as would

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apply to civil service appointments similarly dealt with. This, we venture to suggest, is the *via media*—the golden way it might be called—out of the present difficulty. To make fixity of tenure apply only to appointments in which private practice was to be debarred might in some cases have a very bad effect. Some short-sighted sanitary authorities willing on general grounds to join a combination might refrain from doing so because, the combination involving a whole-time appointment, power to dismiss the medical officer would disappear, while by remaining isolated and continuing to employ a medical man in general practice the power of dismissal would remain. To such a proposal, therefore, there would be objection perhaps quite as strong as that which applies to the decision arrived at by the 10 to 9 majority. The correct way is to subordinate purely private interests to the public good, but at the same time to give adequate compensation for loss of office. Wherever a proposed large scheme is looked on favourably by adjoining local authorities the whole proposal should not be liable to be thwarted by the existence of a medical officer in one part of the area having an expectation of life extending, perhaps, to thirty or forty years, and not being subject to dismissal even under compensation. At the same time no unrelievable hardship ought to befall the officer through deprivation of office. We repeat that the experience of the northern kingdom, where many ex-officials are now in receipt of pensions corresponding to their former salaries, should be utilised in dealing with the question as it applies to the provinces in England.

HEALTH IN THE POST OFFICE SERVICE.

IN a recent annotation[1] we drew attention to the evidence of Mr. Arthur Wilson, chief medical officer to the General Post Office, before the Departmental Committee presided over by Lord Tweedmouth, on Dec. 6th last, at the House of Lords. From the figures given by Mr. Wilson it appeared that the health of the employés, who do not consider themselves a very healthy body, compared more than favourably with men of the same age engaged in other occupations. His statistics were, indeed, surprising considering the nature of the post office employés' occupation, as the death-rate for the whole of the staff was given as 4·2 per thousand, a rate lower than that of the clergy between the same ages. This has called forth a rejoinder from the telegraph staff of the General Post Office, in which they state that "the assumption underlying the whole of the medical officer's evidence is that 4·2 represents a class mortality and it is compared with class mortalities, whereas it only represents the mortality of those dying on full pay. On showing signs of serious ill-health likely to result in ultimate death men are invalided from the service and it is notorious that few persons long survive their retirement." The death-rate as given in the rejoinder is 10·5, but this, it is explained, probably under-estimates the real rate. In THE LANCET of Aug. 1st, 1885, in the course of some remarks on the conditions of the work of telegraphists, we made the following remarks:

"His [the telegraphist's] work is mental and it is also monotonous. It involves long harping on one chord of his intelligence, with but little intermission and little variety. We have frequently to do, therefore, with a badly nourished brain, subject to sustained impulses passing along the nerve of hearing and obliged by concentrated and generally uniform effort to convert these into visible expressions. Thus the brain, losing the exercise of invigorating reflection and acting merely as a higher reflex centre, is apt to be driven to exhaustion by sheer wear-and-tear of certain lines of its nervous tissue."

This passage, which was referred to by Mr. Garland in his examination by the Departmental Committee, was put to Mr. Wilson for his opinion, when he replied that he did not think the conclusion arrived at a proper one. The work of a telegraphist, he said, becomes mechanical after a certain time and would not cause wear-and-tear. In an annotation in our issue of Aug. 31st, 1895, on the "Grievances of Telegraph Service Clerks," we commented on the absence of reliable statistics, remarking that from some suggestions made by Mr. Spencer Walpole it would seem that better statistics are accessible, and expressing the hope that they would be laid before the committee. These figures have, however, not been forthcoming, and in their absence it is impossible to decide as to the merits of either the official or the employés' figures. Until the authorities produce reliable and accurate data, however, the benefit of the doubt may be given to the employés.

[1] THE LANCET, Dec. 14th, 1895.

LOCAL ANÆSTHESIA IN SURGERY.

DR. THEOPHILUS PARVIN, writing in the Philadelphia *Medical and Surgical Reporter*, gives an interesting account of the utility of the system of local anæsthesia introduced by Dr. Schleich of Berlin and obtained by the hypodermic injection of solutions of cocaine of varying strength. The most generally useful solution consists of 2 parts chloride of sodium, ½ part of muriate of morphia, and 1 part muriate of cocaine in 1000 parts of water, 20 drops of a 5 per cent. carbolic acid solution being added to each litre. Of this solution 100 c.c. may be used for an operation. Each injection causes a white weal, near the circumference of which another puncture and injection are made, and so on till the part to be incised has been rendered insensible to pain, the line of incision corresponding with the line of punctures. The insensibility of the skin lasts for a time varying from fifteen to twenty minutes. Dr. Schleich uses this local anæsthesia not only in minor surgery but even for abdominal operations such as cholecystotomy and ovariotomy.

THE WAIL OF A FRENCH PHILANTHROPIST.

PROFESSOR E. MASSE of Bordeaux, editor of the interesting *Gazette Hebdomadaire des Sciences Médicales*, like all patriotic Frenchmen, is gravely concerned at the threatened depopulation of his country, and with reference to "the slaughter of the innocents" expresses himself in a recent number[1] to the following effect: "France loses one-sixth of her infants before they attain to the age of one year, and the pity of it is that, with a little more care, a great number of them could be saved. Mothers ought to suckle and bring up their own children. Out of 94,000 *enfants assistés* (that is, put out to nurse at the expense of the State) the average number of deaths last year was equal to 68 per cent. M. Lagneau, who drew the attention of the Académie de Médecine to this lamentable fact, is of opinion that the amount allowed for the upkeep of derelict infants is not sufficient; and he likewise advocates the subvention of poverty-stricken mothers who, nevertheless, strive to fulfil the duty towards their offspring which has been imposed upon them by nature. The law recently passed for the protection of infants ought to be far more rigorously enforced." In this country we are not at present confronted with the problem of a diminishing population which is so disquieting to our neighbours; but who shall say that the generation now growing to manhood will be equally fortunate? From "answers to correspondents" in various periodicals and other sources of information which it is impossible to ignore (we published a letter on the subject headed "A Horrible Trade" in THE LANCET of Feb. 1st), there can be no doubt that the practice of preventing conception is on the increase in our midst. One journal in particular

[1] Jan. 19th, 1896.

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has made itself notorious for its unblushing advocacy of what the editor calls a judicious limitation of families and has likewise asserted more than once that medical men are in the habit of teaching their clients how to commit this sin against physiology. We are not now concerned to defend the members of an honourable profession against this ignoble slander. An educated man who could be content to prostitute his knowledge in such a manner would deserve to be classed with Sir Pandarus of Troy. There is one point, however, connected with the distasteful subject about which a few words may be advantageously said. Whenever man attempts to defeat nature's ordinances the results are certain to be sooner or later disastrous. Abstention from coition where there is no excitement is probably not injurious; but when the sexual appetite is habitually stimulated in an incomplete and unnatural manner one or other of the misguided participators in the act, if not both, must inevitably suffer. The practice of restricting the birth of children may possibly become widespread, but it never can become universal. The improvident, the unstable, and the vicious will always continue to propagate as before, and in this way, if there be any truth in the doctrine of heredity, the relative proportion of the unbalanced will gradually augment until in the end they become preponderant in the land. We have based our argument here chiefly on physical premisses; but besides the moral aspect of the case, which is more especially the concern of teachers of religion, it has also its æsthetic or sentimental side which must appeal to everyone possessing a refined nature. Finally, if an object lesson be needed to enforce our views we have only to point to France. The French are said to be the wealthiest nation in Europe, but what is the good of money without men?

AN OVERDOSE OF STRYCHNINE.

A MEMBER of the profession has sent us an account of his unpleasant personal experiences after an overdose of strychnine. He had for some days been taking once a day after dinner three to five drops of liquor strychninæ, B.P., but on a certain evening he carefully "poured out ten drops," which he mixed with two drachms of a solution of sulphate of quinine of the strength of one grain to the drachm. This was well diluted with water and two drops of liquor arsenici hydrochloricus were added. Half an hour after taking this draught he began to feel uneasy and restless, and found he could not walk about with comfort. A little later he lost control of his legs, which felt tense and jerky. He then noticed some slight stiffness in the facial muscles and found there was a distinct tendency for the corners of the mouth to be drawn up. He felt better when lying down, but any attempt to move excited spasm of the muscles of the legs and thighs. He took twenty grains of bromide of potassium and about an hour after the first appearance of the symptoms he sent for medical aid, but meanwhile slight convulsions with distinct opisthotonos had set in. Although the mind is usually said to be absolutely clear, the patient found concentration of thought difficult and he remarks that, although doubtless under ordinary circumstances he would have remembered chloral as the proper physiological antidote, its very existence never entered his head. Nearly an hour passed before medical assistance arrived, and by this time the patient was conscious of being in extreme danger; the slightest movement was accompanied by a convulsion of the whole body, with well-marked opisthotonos and with sudden contraction of the muscles of the chest. Breathing was now difficult, but the diaphragm appeared to be working well and fully under control. A quarter of a grain of morphine was injected subcutaneously, and, as the convulsions continued, twenty minutes later another injection of one-eighth of a grain of morphine was given. From this time the spasms gradually declined, he vomited freely, and then slept at intervals from midnight until about 7.30 A.M., when the symptoms were practically at an end, though for many days he felt tired and disinclined for work, and the muscles of his chest remained acutely painful on any exertion. This case presents many interesting features; assuming that ten minims of liquor strychninæ was the dose taken the symptoms were very severe, but the patient admits that possibly, while talking, he might have poured out two teaspoonfuls of the strychnine instead of the quinine solution. The early affection of the facial muscles is also unusual, and the patient doubts very much whether any of the muscles were quite relaxed in the intervals between the paroxysms; the legs were constantly jerking and it seemed impossible to bend them as they felt as stiff as boards. Our *confrère* is distinctly to be congratulated upon the successful issue of an unpleasant experience, but we doubt whether, even in the interests of science, he could be tempted to repeat the experiment with an undoubted dose of ten minims only.

THE BENEVOLENCE OF THE LATE MRS. STIRLING.

MANY hospitals and charitable institutions will derive considerable pecuniary benefit from the will of the late Lady Gregory, otherwise more familiarly known as Mrs. Stirling the celebrated actress. Among the larger hospitals, Westminster, Middlesex, Charing-cross, and St. Mary's have all received legacies, each £250, besides numerous special institutions. The theatrical profession have of late years been especially kind in the interest which they have taken in medical charities and have shown their feelings in a practical manner by often giving their services or lending their theatres for performances in aid of hospital funds. It is to be hoped that other professions and trades in which large bodies of people are employed will also do their best to support these charitable institutions, which treat the poor of all classes and of all denominations alike, in their desire to relieve their bodily sufferings and to restore them to health.

LANDRY'S PARALYSIS FOLLOWING INFLUENZA.

THE following case is reported by Dr. Pailhas in a recent number of the *Archives de Neurologie*, and is of considerable interest because of its close resemblance to the toxic condition following another acute infectious disease—viz., diphtheria. The patient was a man aged twenty-three who towards the end of February, 1895, while serving in the army, experienced severe headache, especially in the occipital region, and cold feelings between the shoulders. His legs also became weak and he had pain in the stomach and faintness. He was admitted in this state to the regimental infirmary. Three days later he experienced severe articular pains in the legs, which were ascribed to rheumatism, and there was at this time also a difficulty in articulation, the patient speaking slowly, pronouncing the syllables separately and pausing between the words. A fortnight after the onset of his illness the symptoms included great feebleness of the legs and of the body generally, inability to stand, and the articulatory difficulty alluded to above. The knee-jerks were completely lost; the heart was extremely feeble, only beating between 45 and 50 times in the minute, and the cardiac sounds were feeble, but otherwise natural. The hands were cold and cyanosed and the pupils dilated, but reacting to light. During the next two weeks there was slow but gradual improvement, but three weeks after the commencement of the illness it was noted that the leg muscles did not react to electrical stimulation. A week later the knee-jerk still remained absent, but the patient was able to walk, and the articulatory difficulty had almost disappeared.

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He was still feeble and suffered occasionally with pains in the knees and shoulders. Three months later there was a recrudescence in a slight degree of the weakness in the legs and the pains in the joints, as well as a threatening of the articulatory difficulty, after exposure to cold. The symptoms, however, rapidly cleared up without attaining anything like the severity they had shown before; but it is to be remarked that the knee-jerks still remained in abeyance. As we have said, the case is particularly interesting on account of the fact that the disability was evidently the result of a toxic process which is said to have followed influenza. Its resemblance in many points to post-diphtheritic paralysis is very striking, in none, perhaps, more than in the continued absence of the knee-jerks after all the other signs of disease had disappeared. It may be thought, with some degree of justice, that the evidence that the primary disease was influenza is not conclusive, but there can be little doubt that the resulting condition was a toxic one.

THE LONDON COUNTY COUNCIL AND THE WATER BILLS.

ALTHOUGH, as we reported last week, the London County Council appears to have resolved unanimously on the rejection of any proposal to obtain a supplementary water-supply from the Thames, there is not the same accord shown in regard to the Welsh scheme. At the weekly meeting on Tuesday, when so much interesting discussion was anticipated, Mr. Idris's motion that the report of the Water Committee relative to Mr. Binnie's scheme of providing reservoirs in Wales should be formally received was accepted after an attempt to adjourn its reception for some weeks. Lord Onslow, however, moved an amendment to the recommendations of the committee to the effect that, while the efficiency and adequacy of the newly sought supply were not disputed, yet they considered it inexpedient to incur further expenditure until the views of the Government, who had given notice of early legislation on the subject, were made known. We understand that the Welsh scheme will involve when fully carried out an outlay of £38,000,000. The Llangorse reservoir, which would be capable of supplying 182 million gallons per day, would involve an expenditure of £96,000 for a million gallons, whereas the acquirement of 240 million gallons a day by storage will cost, it is said, over £100,000 per million gallons per day. After some discussion the adjournment of the debate was moved, but the motion was rejected by a majority of 3. Subsequently, however, it was carried by show of hands on being moved again by Mr. Lionel Holland.

THE HUDDERSFIELD POISONING CASE.

A LETTER from a correspondent, which is published in another column, recalls attention to a very interesting case which was tried at the last Leeds Assizes. In addition to the one pointed out by our correspondent the case had other noticeable features. Not the least was that it did not end fatally, this being averted by the sagacity of Mr. Demetriadi, who, seeing a man previously in good health suffering from intermittent vomiting and purging, naturally asked to have the stools and vomited matters kept, and, failing to obtain them from his patient's wife, insisted upon having a nurse upon whom he could rely. It is to be regretted that he did not obtain some of his patient's urine, which could easily have been done without anyone's assistance. The patient was suffering (as was proved eventually) from mercurial poisoning, and as globules of mercury have been extracted from the concentrated urine of patients taking ordinary doses of Donovan's solution it is clear that it would have been found in this case, the patient having had an all but poisonous dose of white precipitate. The case presented all the well-marked features of a criminal poisoning case: gross falsehoods told by the prisoner to account for her absence from home, the sordid motive of obtaining insurance and club money, the additional motive of removing her husband to make room for a more acceptable one, and the refusal to save vomited matters and excreta—the whole forming a mixture of low cunning and stupidity. Mr. Justice Grantham, in sentencing the wretched woman to twenty years' penal servitude, told her that she had been found guilty on the clearest possible evidence of administering poison to her husband with intent to murder. He also paid a well-deserved tribute to Mr. Demetriadi in adding that if it had not been for the intervention of the medical man and the care and skill he showed she would have now been standing in the dock charged with murder. The case was, he said, one of the most heartless he had had to deal with. It is to be hoped that no more complaints will be made by judges on the subject of articles sent for analysis. Quite apart from the useless expense and waste of time, there is, as Mr. Justice Grantham remarked, the much more serious probability of a mistake being made. This might cause gross miscarriage of justice.

A STUDY IN THE HUMANER LETTERS.

WE have received a little book called "Everyone his own Doctor, or the Household Medical Guide," edited by Alexander Ambrose, B.A., LL.D., M.D., B.Ch., L.M., D.P.H. Books of this class are, as a rule, "springes to catch woodcocks" and do infinitely more harm than good. An exception, of course, may be made in the case of manuals of medical instruction for the use of missionaries, explorers, and others who live far away from medical aid; but the book in question does not come under this heading so far as we can see. The matter of the book, as far as it goes, is good. Of course there is a certain amount of risk in all cases of self-treatment, but the advice is free from quackery. There is one thing, however, against which we must make a very strong protest, and that is a "free advice coupon" inserted at the end of the book. According to the preface, "should the reader desire further enlightenment the publishers have arranged that it should be afforded him on stating his case by letter to them, enclosing therein a stamped and addressed envelope for reply, together with the coupon printed on page 254." If it be the writer of the book who will afford the advice he must know perfectly well, first, that to prescribe for a patient who has not been seen is eminently unscientific; and, second, that it is not the custom of a profession whose members are gentlemen to be "run" by publishers.

THE TRENDELENBURG POSITION IN PROLAPSE OF THE FUNIS.

THERE is an interesting letter by Dr. R. Abrahams in the January number of the *American Journal of Obstetrics* on this subject. He relates a case in which his attention was accidentally called to the value of this position in the treatment of prolapse of the cord. It was a case in which the vertex presented. On rupturing the membranes a very large quantity of liquor amnii escaped, and a portion of the umbilical cord, estimated to be ten inches in length, was carried down by the gush of the waters into the vagina. The os was fully dilated, and the best plan seemed to him to be to deliver the woman either by forceps or version as quickly as possible. The patient's surroundings were of the poorest possible description, and the bed on which she was lying was "a wide long board with four long poles as feet to rest on." While he was trying to get the patient in position for operating the foot of the bed gave way. This necessitated the raising and holding up of the foot of the

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bed some six feet from the ground while the supports of the bed were being repaired. On lowering the bed after this had been at last accomplished he examined the patient, and was surprised to find that no part of the cord was to be felt in the vagina, and that the head was fully engaged. Delivery was effected quite naturally without any assistance. Dr. Abrahams ascribes the change in the condition of things to the extreme Trendelenburg position caused by raising the foot of the bed to the height above mentioned; and this appears most probably to be the true explanation of the sudden recession of the cord. He considers the Trendelenburg position much superior to the genu-pectoral position formerly recommended for these cases, as being more comfortable for the patient, but, on the other hand, it has the disadvantage of causing difficulty in breathing. Still, as the position may only have to be maintained for a short time, as in Dr. Abrahams' case, treatment of prolapse of the funis by the Trendelenburg position seems to deserve a trial.

A VACCINATION CRUSADE.

DR. FRANCIS T. BOND, the medical officer of health for the Gloucestershire combined district, is very actively engaged in endeavouring to disseminate a knowledge of the benefits of vaccination amongst a community that has of recent years lent a too ready ear to its opponents. We have already mentioned his leaflet entitled "Fifteen Reasons why we should believe in the Efficacy of Vaccination as a Preventive of Small-pox," which has doubtless set many people thinking; and Dr. Bond has followed this up by other writings advocating the formation of a society to be called "The Jenner Society," to promote the diffusion of knowledge of the history of small-pox and the value of vaccination as a preventive against it; to promote legislation to put vaccination on a more satisfactory basis; to improve the practice of vaccination, and generally to facilitate the adoption of analogous methods of preventive and curative medicine. We cordially wish success to this movement, which is fittingly initiated in the county identified with Jenner's work 100 years ago.

THE ANTITOXIN TREATMENT OF DIPHTHERIA.

THE medical registrar of the Middlesex Hospital sends us the following statistics showing the results of the treatment of diphtheria by antitoxin at the Middlesex Hospital during 1895. Full details of the cases will subsequently be published in the annual reports of the registrars of that hospital. The remedy was obtained from the British Institute of Preventive Medicine. For purposes of comparison the rate of mortality, the number of deaths, and the total number of cases admitted are given for the previous five years:—

Year.	Number of cases admitted.	Number of deaths.	Mortality.
			Per cent.
1890	14	5	35·71
1891	19	11	57·89
1892	25	16	64·00
1893	52	22	42·30
1894 (antitoxin given in 9 cases) ...	45	11	26·66
1895 (antitoxin given in 29 cases) ...	34	6	17·64

Of the 34 cases admitted in 1895 29 were treated with antitoxin and 4 died, yielding a mortality of only 13·79 per cent. Of the 5 cases not so treated 2 died, showing a mortality of 40 per cent. That these 5 cases were not more severe than the others will be seen by the following considerations: 1. Of the 34 cases were instances of diphtheria affecting the fauces and pharynx only, no symptoms of laryngeal affection presenting themselves; but of these 14 cases 3 were not treated by antitoxin (thus accounting for 3 of the 5 cases). Such cases usually recover, and no deaths were recorded amongst the 14 cases. Extension to the larynx occurred in 14 cases; 1 case only was not treated by antitoxin and proved fatal; of the remaining 13, 3 died. Six of the cases were purely laryngeal in nature, no membrane appearing in the fauces. One was not treated by antitoxin and died. Of the 5 which were treated 1 proved fatal. In 11 cases the dyspnœa was so urgent that tracheotomy had to be performed. They were all treated by antitoxin and 7 recovered, an unusually large percentage. In most of the cases the diagnosis was confirmed by bacteriological cultures. With the exception of urticarial eruptions in 3 of the cases no unpleasant symptoms followed the administration of the antitoxin. Two injections were usually given, the first of 20 c.c., and the second, twenty-four hours subsequently, of 10 c.c.

THE TYNE PORT AUTHORITY AND DR. H. ARMSTRONG.

IN THE LANCET of Nov. 9th last we drew attention to the circumstances under which Dr. Armstrong resigned his position as medical officer of health to the Tyne port, on the ground that he could not with due regard to his own dignity any longer serve that body. Notwithstanding this, however, Dr. Armstrong not only consented, when he heard no successor to his office was available, to serve the port authority up to the end of the year, but also to write a report on the sanitary state and proceedings of the port for the whole of 1895; but he takes occasion in that report publicly to protest against the attitude adopted towards him by a small but irrepressible section of the authority. We think Dr. Armstrong has done well, in view of the special circumstances and of the very undignified proceedings of the authority, to enter this final and official protest against such action. It may perhaps save his successor from similar puerile and personal opposition and accusations; but even this prospect does not look altogether promising, for we learn from the report which gives an account of Dr. Armstrong's resignation that the assistant medical officer of health has since taken the same step. Dr. Armstrong is to be congratulated on his action and on his attitude throughout this matter.

LUNACY IN HAMPSHIRE.

AN interesting report on the previous year's work was submitted on Feb. 11th to the county council by the committee and medical superintendent of the Hants County Asylum at Knowle, near Fareham. First, overcrowding was mentioned. The asylum has room only for 983 patients, and at the present moment there are 1072 persons under treatment, notwithstanding the fact that a block for idiot children, now taking 15 patients, and in addition giving sleeping room for 30 chronic female patients who had for the last two years been sleeping in the medical officer's house, has been opened. Additional beds, too, were available on both sides when the new sanitary spurs were completed, 25 patients of each sex taking the room formerly occupied by the lavatories &c., but the day accommodation remains as aforetime. Two things, however, will tend to relieve this congestion. The Isle of Wight patients have during the last five months been charged for as out-county cases, and as soon as the new asylum for the island is completed they will be removed. There are 72 males and 112 females chargeable to the island. Southampton, too, has been enlarging the borders of its county borough by the inclusion of the South Stoneham Union, and so 51 patients formerly chargeable to the union have now been transferred to the county borough, and are liable to be removed if necessary. The medical superintendent's report contained several points

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of interest. Typhoid fever of a very mild type appeared in a few instances, and in two cases—one male and one female—the patients, when convalescent, regained their sanity. The infirmary and the female side were especially crowded, but the general health was good and the death-rate for females was very low—viz., 5·8 on the average numbers resident, and 4·9 on the total numbers under treatment. The male figures respectively were 11·9 and 9·6. On the last day of the year there were 1072 patients (486 and 586), an increase of 30; during the year 119 males and 115 females were admitted, and the discharges had been: Recovered, 36 and 52; relieved, 5 and 8; not improved, 9 and 3. The deaths were 57 and 34; total cases under treatment, 593 and 683; average resident cases, 478 and 578. The admissions showed little variation, although the tendency to send old people from the workhouses was mentioned; the discharges were more numerous, and the percentage of recoveries on admissions had risen from 32·5 to 37·6; the death-rate had fallen from 10·6 to 8·8. Of the extra 30 cases, 10 came from three parishes which had been taken over by Hampshire from Wiltshire.

THE NEW PHOTOGRAPHY.

THERE is little that is new to report this week in regard to the application of the "x" rays. Direct vision of the invisible by Professor Salvioni's method is, as we ventured to suggest last week, likely to open up a more promising field so far as medical diagnosis is concerned. With the assistance of Mr. J. C. M. Stanton, Mr. A. A. C. Swinton has, we learn, confirmed Professor Salvioni's experiments and has succeeded in obtaining visible shadows of coins inside a leather purse, metal instruments enclosed in a case, &c. The apparatus consisted of a tube of opaque pasteboard, with a simple aperture at one end serving as eye-piece. The other end was closed with an opaque diaphragm of double black paper, upon which on the inner side was laid a piece of blotting paper previously saturated with a solution of platino-cyanide of barium and dried. The case containing the object was held against the diaphragm with the Crookes's tube beyond it, so that the rays proceeding through the wood &c. cast a shadow of the imprisoned objects on the fluorescent screen. The platino-cyanide fluoresced brightly under the stimulus of the rays on those portions of the blotting paper where no shadow was cast and threw the dark image of the object into clear relief. Thus, the impedimenta of photography are done away with, and it may be before very long that the outlines of the bones in the flesh will be directly viewed by this means. We still need, however, a more reliable and a more convenient source of these mysterious "x" rays.

DIAGNOSIS OF GASTRIC DISEASES.

IN comparison with diseases of other organs the methods of diagnosis of diseases of the stomach have received but comparatively little notice in our current literature. An article by Dr. Boardman Reed in the *Medical News* of New York of Jan. 18th is of especial interest in that it defines minutely the methods of diagnosing certain conditions of the stomach frequently met with but seldom recognised in ordinary medical practice. The paper is entitled "The Diagnosis of Changes in the Size, Position, and Motility of the Stomach in Cases where Intra-gastric Instruments cannot be Used." It deals almost entirely with two methods of physical examination—*clapotement* and percussion. Dr. Reed is of opinion that it is best to examine the patient at a time when the stomach should be entirely empty—that is, the morning, fasting, or six hours at least after the last meal. If after that period the splash by *clapotement* can still be obtained we can infer deficient motility. Noting at the same time the lowest point where the splash can be distinctly heard, we may infer as a rule that the lower boundary extends to about that level. The abdomen should then be percussed in various positions to verify the result of *clapotement* and to map out the boundaries. The patient then drinks from one-eighth to one-fourth of a litre of water, and another attempt is made to obtain the splash; if it is obtained after the smaller amount it raises a question as to the motility. Percussion of the boundaries of the stomach with the viscus partially full and the patient standing is then performed. The water should be given gradually, when if the stomach is atonic the area of dulness usually extends downwards with each successive glass, but if its muscle is healthy and strong the dulness extends upwards only or mainly. Dr. Reed differentiates nine conditions which may be recognised by these methods:—1. Normal stomach. If empty, no splash is heard until the viscus is partially full, and then it may still be absent or only very feebly heard. Percussion will demonstrate the normal boundaries. 2. Atonic stomach. The splash may be heard from four to six hours after a full meal, but it is easily obtained after the drinking of a small quantity of water. Percussion will show delayed emptying of the organ. 3. Stomach enlarged, but motor power strong (megalogastria of Ewald). The lower border of the stomach is at the level of the umbilicus or lower. No splash is obtainable six hours after food. 4. Stomach enlarged and motility weak (dilatation or gastrectasia). The splash is obtainable six hours after a meal. Percussion shows enlargement of the organ nd delay in emptying itself. 5. Gastroptosis. The stomach is wholly displaced downwards, but otherwise normal. The splash is usually more easily obtainable than normal. Percussion shows descent of both upper and lower boundaries. 6. Stomach enlarged and displaced downwards as a whole, but not dilated. The same as in No. 5 except that on percussion the upper boundary is not so much displaced. 7. Stomach wholly displaced downwards and dilated. The same as in No. 6, but the splash is obtainable too long after a meal. 8. Pyloric end of the stomach displaced downwards to the left (pyloroptosis), but without dilatation. The splash is obtained far below the level of the normal lower border. Percussion reveals the pyloric end low in the abdominal cavity. 9. Pyloroptosis with dilatation. The same as in No. 8, but the splash is more pronounced and is found too long after food or drink. Percussion shows also a widening of the pyloric end of the stomach.

INQUEST PRACTICE.

TWO points of considerable interest arose at an inquest recently held at West Hartlepool. It appears that a man named Joseph Aspinall whilst travelling between Hartlepool and West Hartlepool fell down apparently in a fit and died. It so happened that Dr. Harte Gourley was travelling in the same train. When called to the case he found the man dead. At the inquest the coroner raised the question whether Dr. Gourley's name was on the Register; the latter replied that it was, whereupon the coroner said that he must have made a mistake. If the coroner had reason to believe that Dr. Gourley was not a duly registered practitioner he was acting within his rights and in fact doing a service to the public and the medical profession in drawing attention to it, and inasmuch as Dr. Gourley's name only appeared on the official list last year there was some excuse for the mistake made, and we trust Dr. Gourley is satisfied with the result that he was enabled to substantiate his professional status. Our contemporary, the *Northern Daily Mail*, in its report of the inquest mentions that one of the witnesses informed Dr. Gourley that prior to the deceased falling down in a fit the occupants of the carriage

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had been "playing at gymnastics." We are of opinion that if such was the case Dr. Gourley was fully justified in saying that a medical man could not certify without making a post-mortem examination, and, further, it was a fit and proper case for complete investigation. We are at a loss to understand the equity of the coroner's observations to Dr. Gourley: "You want to open the body and get your two guineas fee"; and when the latter indignantly repelled the assertion it was met by such a rejoinder as "whether you want it or not you won't get it." The coroner had it in his power to order or refuse a necropsy, but surely it was not necessary to embellish his decision with remarks imputing dishonourable motives to a medical man.

MEDICAL CERTIFICATES FOR THE LONDON BOARD SCHOOLS.

WE would remind our readers that a second meeting of medical practitioners will be held at 20, Hanover-square at 4 P.M. on Thursday, March 5th, to receive the report of the committee which met upon Feb. 13th and to discuss the propriety of medical men giving any more certificates so long as the Board persists in its unseemly attitude of revising these certificates at the bidding of a lay official. All medical men, especially those connected with hospitals or dispensaries, are earnestly invited to attend.

ANTI-TYPHOID SERUM.

IN view of the interest aroused in the profession by the recent reports on Dr. Chantemesse's experiments at the Pasteur Institute with anti-typhoid serum, and in answer to several correspondents, we may inform our readers that Messrs. Burroughs, Wellcome, and Co. are prepared to supply anti-typhoid serum in phials of 10 c. c. each. In making this announcement we do not endorse the statement of the results of the use of the remedy which have appeared in certain lay papers; on the other hand, the source of the therapeutic discovery is so good that, improbable as some of the results may seem, it cannot but receive the respectful attention of the profession.

RECENT ENGLISH MORTALITY.

THE Registrar-General's recently issued quarterly return for the last three months of 1895 and his fifty-seventh annual report dealing exhaustively with the vital statistics of 1894 enable us to consider the changes in the rates of mortality in England and Wales in recent years. During the five years 1861–65 the mean annual death-rate in England and Wales was 22·6 per 1000, whereas in successive quinquennial periods the mean rate steadily fell to 19·4 in 1881–85 and 18·9 in 1886–90. The mean rate in the ten years 1881–90 did not exceed 19·1, against 21·4 in 1871–80 and 22·5 in 1861–70. Thus, measured by the recorded death-rate, the improvement in the public health, which practically dates from the Public Health Acts of 1872 and 1875, was considerably greater in 1881–90 than in the previous decade 1871–80. The rates of mortality in 1890 and 1891 showed a decided increase owing to influenza mortality, which also, to some extent, raised the rates in 1892 and 1893. In 1894 the English death-rate fell to the unprecedentedly low figure of 16·6 per 1000. Prior to 1894 the rate had never fallen below 18, and only three times below 19 per 1000—namely, 18·9 in 1881, 18·1 in 1888, and 18·2 in 1889. The death-rate in 1895 rose again to 18·7 per 1000, showing an excess of 2·1 upon the unprecedentedly low rate in 1894, but was, with only three exceptions, lower than the rate recorded in England and Wales in any year since civil registration commenced in 1837. It is, also, eminently satisfactory to note that the mean death-rate in the first half of the current decade—that is, in the five years 1891–95—did not exceed 18·7 per 1000, against 19·4 and 18·9 in the two preceding quinquennia. Thus, notwithstanding the fatal effects of influenza, the English death-rate in the five years ending with December last was lower than in any preceding five-year period for which records exist. One of the most unsatisfactory features of recent English mortality is the absence of the due proportional decline in infant mortality, measured by the deaths under one year to registered births. During the ten years 1881–90 infant mortality measured in this manner averaged 142 per 1000; but in the five years 1891–95 the rate increased to 151 per 1000, although the death-rate at all ages continued to decline and was lower than in any previous quinquennium. This increase of infant mortality concurrently with a declining death-rate at all ages calls for careful investigation. The new English life table, based upon the mortality experience of the ten years 1881–90, which will probably find place in the Decennial Supplement which should shortly be published, will throw some light upon the relative increased expectation of life at birth and at subsequent ages, and will be full of interest.

CASE OF CEREBRAL TUMOUR.

IN the *Journal of the American Medical Association* Dr. Dufour of Washington relates a case of a woman aged fifty-six who suffered from paralysis of the muscles supplied by the third, fourth, and sixth nerves of the left side, and exophthalmos and optic atrophy in the same eye. Some months before she had been operated on for empyema of the left antrum, and when seen there was free drainage through the nostril. She was treated with iodide of potassium and mercury, but apparently with only small doses of the former drug. There was no benefit derived from the treatment, and the upper division of the fifth nerve became involved and the pain in the head intense. A re-opening of the antrum gave a little relief for a few days only. Her condition gradually deteriorated, the right optic nerve began to atrophy, word deafness became manifest, and her mind wandered. She died about a year after she was first seen. At the necropsy there was found to be a gumma of the dura mater in the anterior part of the middle fossa involving the left temporo-sphenoidal lobe. This growth surrounded the internal carotid artery and the left optic nerve and exerted pressure on the cavernous sinus of that side. A second gumma was found in the left olfactory region, and a third lay in the angle at the right of the optic commissure. The last-mentioned lesion probably accounted for the late affection of the right optic nerve.

THE LEICESTER BACTERIOLOGICAL INSTITUTE

GREAT changes have come over the relations between medicine and microscopy during the last twenty years. Not long ago the entire outfit of a microscopist was quite portable, and for medical work the manipulations requiring most practical dexterity were staining, injecting, hardening, and section-cutting; but the discovery of cultivable pathogenic micro-organisms forthwith converted the microscope-room into a laboratory provided with sterilisers and incubators and plentifully furnished with tables and shelves for glass flasks and test tubes. Previously to this the term laboratory was used chiefly to signify a building in request among chemists, and incubators were a specialty of the embryologist, being required for hatching fowls' eggs. In towns where medical schools existed the requisites for conducting bacteriological research were in course of time introduced, but other places had no such facilities until Messrs. John Richardson and Co. of Leicester fitted up the Leicester Bacteriological Institute in the Stanley-road and placed it under the control of the Leicester Medical Society. Practitioners in the Midlands have thus at hand the means of carrying on original research work in the investigation of

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infectious and other diseases, and also of obtaining expert opinion upon the nature of any exudation suspected to be pathognomonic. Messrs. Richardson and Co. have published a series of photographic views of their laboratory, as well as of the outbuildings and meadow where horses are kept for the supply of antitoxic serum. Dr. C. H. Marriott, surgeon to the Leicester Infirmary, is chairman of the council of management.

ANKYLOSTOMIASIS IN BARBADOES.

WE are informed that the ankylostomum duodenale has been recognised for the first time in Barbadoes by Dr. Cuthbert Bowen and Dr. Wm. Briggs Clarke, resident physician at the General Hospital. There is a special interest attaching to this discovery, since thirty years ago Dr. Wucherer identified this parasite in fatal cases of "cachexie aqueuse" in Brazil, and the malady known by this name was, according to Professor Hirsch, first described by practitioners in the West Indies.

THE TRANSMIGRATIONS OF A COW.

SOME three months ago an "ancient" cow suffered from a wasting disease at Glastonbury and was then killed, we suppose, to prevent its dying. The carcase was sold for 7*s.* to a gentleman named Chivers and was despatched by him to a meat salesman named Harrington, of 99, Charterhouse-street, in a hamper labeled "cat's meat" per the London and South-Western Railway, being delivered at his (Harrington's) premises with the label attached. From cat's meat the carcase entered upon a higher incarnation in the house of one Robinson, an East-end sausage-maker; but at the moment of its being cut up for sausages on Dec. 5th, 1895, a sanitary inspector entered, with the result that Robinson was fined at Worship-street Police-court in the sum of £50. The meat having been traced to Harrington, he was charged at Clerkenwell Sessions and sentenced to three months' hard labour, about as much as a vagrant gets for that mysterious "offence" known as "sleeping out." The scoundrels who sell bad meat for human food ought to be treated as the poisoners they really are. We would suggest the revival of the pillory. Messrs. Robinson and Harrington standing in this machine in St. Paul's Churchyard labeled in large letters with their names, addresses, and offences, with fragments of the cow or the sausages round their necks, would be a most wholesome sight.

THE PREVENTION OF TUBERCULOSIS.

THE eminently wise and judicial attitude assumed by Dr. James B. Russell, the medical officer of health of Glasgow, in his just-issued Report on the Prevention of Tuberculosis, referred to in our Glasgow correspondent's letter last week, makes us hope that this report will be available for general circulation. For it speaks the language of commonsense on every page and defines with precision the limits within which it is legitimate or necessary for the public health to take action in regard to tuberculosis from the point of view of the sanitary authority. It is manifest that the opinions thus expressed by one who stands foremost amongst the medical administrators of the Public Health Act and whose personal work in the sanitary improvement of Glasgow has been attended with remarkable success cannot fail to carry great weight; whilst we are pleased to note that the views that Dr. Russell propounds are in harmony with those often expressed in these columns upon the question of the infectivity of tuberculosis. Dr. Russell draws a marked line of distinction between this widespread scourge and that of infectious diseases in the popular sense. It is true, he says, that in all cases tuberculosis is gained by infection, but it is not all that can cause infection; and the application to such a disease of all the machinery of sanitary administration—as notification, isolation, disinfection, and so on—is as unnecessary as it would be vexatious and cruel. For, as he points out in speaking of phthisis—the chief form of tuberculous disease from which aerial infection can arise,—the measures of prophylaxis may almost be summed up in individual care to prevent the dissemination of dried sputum in dust, and in the general adoption of improved dwellings to avoid overcrowding and to insure ample entrance of sunlight and free movement of air. The risk of direct communication of the disease from the sick to the healthy is as nothing compared with the overlading of the atmospere with infected dust, which may be introduced with food as well as inhaled. He points out, too, that the factor of individual vulnerability is of great importance—the removal of the natural barriers to entrance of bacilli by catarrh and ulceration, and the lowered vitality of blood and tissue which enables the invading microbe to prevail in the struggle for existence. As regards the liability to infection from the consumption of flesh and milk from diseased animals, Dr. Russell, with the practical sagacity so characteristic of all his writings, urges the adoption of measures to enable the authorities to detect the presence of tuberculous disease in the living animal, and wisely suggests that more attention should be paid to the prevention of the disease amongst cattle by improving the hygienic condition of their byres. It is, indeed, not surprising that bovine tuberculosis should be so common when the animals live in conditions that are so favourable to the development of the bacilli. Of course the general rule that meat should be thoroughly cooked and milk boiled before being used for human consumption are precautions which partake of the same essential character as that of preventing the drying of expectorated matters and the dissemination of tuberculous dust. Dr. Russell's report is scientific and practical; it has, moreover, a literary charm which renders it very attractive. We can only reiterate the hope that it will be widely disseminated.

HEREDITARY CEREBELLAR ATAXY.

IN the *Journal of Nervous and Mental Diseases* is a short account of the condition of a patient shown by Dr. Joseph Collins at a meeting of the New York Neurological Society. The patient was a boy aged eleven, the second of two children. Both parents were living, but there was no history of any similar conditions in former generations. The sister of the patient, however, who died at the age of two years, had apparently suffered from the same disease. The patient was able to begin to walk and speak about the usual time, but he had never been able to walk like other children, and his speech had never been natural. He was always "stiff in his joints" and there was a constant tendency to fall as he walked. He attended school after the age of five years, but was never able to make any progress, and finally, a year before the date on which he was shown at the society, he was dismissed from school on account of his inability to learn. For a year or more it is said he had now and again lost the use of his left side, and at those times his arm and leg became unsteady and his speech unintelligible. When shown he was tall for his years, his face looked old, and his skin dry. There was weakness of the left side of the face, the grasps were very feeble, and the gait shambling and reeling. There was exaggeration of the knee-jerks and slight ankle-clonus was present. The genital organs were undeveloped. He rose with difficulty from the recumbent position, his method of doing so resembling that of a patient with pseudo-hypertrophic paralysis. There were slight weakness of the external recti muscles and progressive myopia but no optic atrophy. The articulation was thick and ataxic and sometimes very

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jerky. Although he was affectionate and fond of animals and pictures he was very deficient mentally. Dr. Collins regarded the case as one of "hereditary cerebellar ataxy," a disease to which Nonne in particular has directed attention. The hereditary character is not constant, but the disease is one of the group of family diseases, and its close relationship to Friedreich's ataxy is obvious. Dr. Collins's case differs in some respects from cases of this disease hitherto described, but the correspondence in general character of the symptoms is probably sufficient to stamp it as belonging to the same class.

INVITATIONS TO TENDER FOR THE POST OF HEALTH OFFICER.

THE Farnborough Urban Council have succeeded in lowering the status of medical officer of health in their district to a level which, we venture to hope, is nowhere else even thought of. Just as sanitary authorities ask scavengers to tender for the removal of filth so that it may be done on the cheap, so have the Farnborough Council invited tenders for the first time in this country for the work and duties of medical officer of health; and we cannot but regret to add that they received tenders as the result of their trade advertisement. The Local Government Board seem to have done all they could to frustrate this attempt at putting professional services on the lowest trade level; for, having seen the advertisement, which applied to the post of inspector of nuisances as well as of medical officer of health, they informed the district council that they should hold any appointments made under that advertisement as invalid. But this difficulty can be evaded, for, according to the *Aldershot News*, the council will readvertise at the salary which they have decided to give on the tenders received, and then appoint the officer of health whom they have selected under the new advertisement. The introduction of this commercial phase into professional appointments deserves the serious consideration of the medical profession as a whole. Even artisans and workmen have combined against being undersold, and the medical profession may have to adopt similar procedures with regard to clubs and public appointments. The matter will, in the first instance, doubtless be dealt with by the Incorporated Society of Medical Officers of Health.

A FIRST COURSE IN EDUCATION.

THE fact that some regard for the demands of appetite is usually associated with intellectual discussions is not a peculiar characteristic of any one people or state of society. The dining table, which in these islands constitutes a signal of concourse to groups of men who agree for the time to think, speak, work, or give in common, is only our national symbol of obedience to a world-wide custom. Other peoples in like spirit exhibit their conformity to the same ruling principle. Not even savage tribes are exempt from its control. The calumet, the gourd of maté-tea, with a variety of other means of solace, both civilised and savage, testify to a universal agreement in activity between the forces of mind and body. It was recently asserted that the Chancellor of the Exchequer had discovered one more illustration of this truth in connexion with the still-nascent University of South Wales and Monmouthshire. A very large proportion of the Government grant of £3000 was said to have disappeared in the form of refreshments. The representatives of learning in the Principality had evidently not been backward in vindicating the claims of intellect upon the senses. The young university, like a vigorous boy, required food for its healthy growth and it had been satisfied. It was further suggested that other grants from private persons might be applied to a like purpose. The suggestion, generous though it is, will not be taken up. We are assured by the treasurer of the University that it is groundless and unwarrantable. The authorities will have none of it. Donors of funds may therefore give to the cause of education with a prospect of receiving their money's worth in the actual service of learning. Some initial outlay on entertainment was doubtless excusable and even advisable. Whether the limits imposed by a wise economy have been exceeded or not we are not in a position to state; at all events the indispensable festival is over and the time for work has come.

THYMUS EXTRACT IN GRAVES'S DISEASE.

IN a recent number of the *Boston Medical and Surgical Journal* Dr. Edes reports a case of a woman aged thirty-four who, after much personal worry and anxiety, became nervous, emotional, and sleepless, and had severe pain in her neck, chest, and arm. On admission to hospital she was found to have an enlarged thyroid gland, prominent eyes, and a rapid and irregular heart. There was a slight systolic bruit to the left of the sternum. She was at first treated with dried thyroid gland, but without benefit. Later she had a course of bromide of potassium, then splenic extract of two kinds, and the restlessness diminished somewhat, although the rapidity of the pulse remained unaltered. She began finally to take an extract of the thymus gland. She continued this for two months, but without very marked benefit. She was, however, discharged "relieved." She was seen two months later, when she had been a month without taking the thymus gland. She had attempted to go to work, but had not been fit for it. She resumed the thymus gland and the pulse a month later was 94. She was feeling much better and was able to resume work. She was last heard of as employed actively at a shop during the busy Christmas season. Dr. Edes mentions several other cases in which thymus gland has been given, and in many apparently with such good results as to justify more extensive trial.

ON Monday last the executive committee of the General Medical Council met and had various matters of importance under their consideration, including returns on the disciplinary functions of the examining bodies and communications with the Privy Council Office on the subject of the appointment of assistant examiners to the Apothecaries' Hall of Dublin.

AT a meeting of the Middlesex Hospital Medical School Committee on the 22nd inst. Dr. Arthur Robinson of Owens College was nominated to the Lectureship on Anatomy, and Dr. R. A. Young, B.Sc., to the Lectureship on Physiology, to fill the vacancies occasioned by the retirement from these offices of Mr. Bland Sutton and Mr. B. T. Lowne respectively.

HIS ROYAL HIGHNESS THE PRINCE OF WALES, K.G., will lay the foundation stone of the new out-patient department of the Sussex County Hospital, Brighton, on Satur ay next, Feb. 29th, at 12.30 P.M.

WIGAN MEDICAL SOCIETY.—The annual meeting of the above society was held on Feb. 12th, when the following office-bearers were elected for the ensuing year:—President: Mr. C. R. Graham, M.R.C.S. Eng., L.R.C.P. Ed. Committee: Messrs. C. R. Graham (President), W. Mitchell Roocroft (ex-President), Monks, Brady, Cowan, Benson, and Molyneux. Treasurer: Mr. G. H. Monks, L.R.C.P. & S. Ed. Secretary: Mr. Wm. Berry, F.R.C.S.I. The annual dinner was then held. There were a good number of members and visitors present, amongst whom were Professor Banks (Liverpool), Dr. Ashby, Mr. Judson, Dr. Bury, and Dr. Donald (Manchester).

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THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER IX.

The First Ten Years of THE LANCET.—*Their Stormy Character.—The Question of Copyright in Lectures.—Sir Astley Cooper.—His Opinion on the Publication of His Lectures.—His Detection of the Unknown Editor.—An Amicable Compromise.*

FOR the first ten years of its existence THE LANCET was a duelling ground for a series of fierce encounters between the Editor and the members of the privileged classes in medicine. The lectures of certain of the great hospital surgeons and physicans were reported in its pages to the exasperation of the deliverers and the delight of the profession at large and the students. The great men feared lest their fees as teachers in the metropolitan schools should diminish if the cream of their teaching could be bought for sixpence a week instead of for £5 a session; while every medical man or student, unable by circumstances to attend the classes of his leaders, rejoiced in the chance offered to him of acquiring familiarity with their methods and theories through the medium of print. The meetings of the medical societies, again, were reported at the length that their importance warranted—a proceeding which the officials of the societies objected to as an infringement of the copyright; for this they considered that the editor of the Transactions of the society, a person appointed by themselves, enjoyed as a matter of common sense as well as common law. Briefly from the beginning the hospital surgeon and physician were ranged in unbroken phalanx in opposition to the new and, as they considered it, mischievous journal. The officials of the medical societies followed suit; and the office-bearers in the medical corporations, the practices in two of which were scathingly reviewed in early issues of THE LANCET, were not slow to scent their foe. Everyone who had anything to gain by the peaceful reign of existent methods in school, hospital, or corporation—a definition which included most of the influential members of the profession—looked with uneasiness at the growing power and popularity of the new journal.

Wakley, for his part, was quick to discover his enemies, and their tactics dictated his. He found himself denounced as a literary pirate and a disseminator of moral garbage. His replies were chiefly in the nature of reflection on the complete and fretful ineptitude of his denunciators. He pointed to his growing circulation, scattered with doubtful taste but cruel point a few nicknames, and hinted at astonishing revelations of abuses arising out of the fact that publicity had hitherto been avoided by hospital officials. As a natural pendant to his assertion that the elections to the staffs of the various metropolitan hospitals were made at the instigation of pure nepotism, accounts were given in the pages of THE LANCET of maladministration in the schools and malpraxis in the wards. And upon these came action and cross-action. Certain of the criticised were compelled to proceed legally against their critic, while their defence outside the law-courts, too keenly and bitterly undertaken by friends or rival journals, on more than one occasion laid the defenders open to counter-charges of misrepresentation. In the first ten years of the existence of THE LANCET the Editor was engaged in no less than ten actions, his opponents being eight separate persons. The proceedings in these actions will be detailed in full in ensuing chapters, for they constitute a most interesting phase in the history of medical reform. It is sufficient here to state, as indicating the sort of lines upon which THE LANCET was conducted, that six of these actions were actions for libel, the aggregate sum of £8000 being claimed for damages, and the aggregate sum of £155 0*s.* 0½*d.* being awarded, while the Editor's costs were largely defrayed by public subscription. The best method of dealing with these years will not be to treat the events in strict chronological order, for these at times occurred so thickly that their consequences were constantly overlapping, and a narrative of them would make the story almost impossible to follow, even if the reader were assisted in the most careful and elaborate manner by dates. It will be better to consider one case or set of cases separately from start to finish, and at the conclusion of the first decade of THE LANCET'S work to summarise the work accomplished, the battles lost and won, and the good or ill done to the world and the medical profession.

Wakley's first contest with the law in the character of Editor of THE LANCET does not provide any sensational material. It was the longest and most expensive suit that he was ever engaged in, and the real question at issue was a much broader one than was stated in the pleadings or than is represented by the precedents which Lord Eldon's judgments have since formed. It was the question of the legality of the publication of certain lectures addressed to medical students by Abernethy, at that time the senior surgeon at St. Bartholomew's Hospital, and the person of professional eminence selected by Wakley to succeed Sir Astley Cooper as the chief attraction in his columns. For the publication of Sir Astley Cooper's lectures in the place of honour of the new paper had proved a fine stroke of journalism—of that there can be no doubt. The lectures possessed all the qualifications that an editor would shrewdly desire for his most important articles. They were excellent in material, wise, practical, easy to follow, and really informatory and valuable. A large class of readers might be expected to constantly buy a paper which contained such contributions. To those seeking instruction in the broad roads of surgery as much as to those desirous of revising their knowledge of the obscurer by-paths the light shed upon their course from the clearest surgical intellect of the day was equally valuable; and the Editor could confidently count upon a regular *clientèle*, desirous of obtaining such help and such only from the paper and quite indifferent to questions of medical policy or medical reform. In short these lectures attracted and held readers. Hardly less important from a business point of view was the prestige that their publication conferred at once upon THE LANCET. For they had what first-class and useful work does not always have—that is, a widely known and distinguished name appended to them. Sir Astley Cooper's was at the time a name to conjure with. He was at the very highest point of his professional fame, his unrivalled surgical reputation being enhanced by his wealth, his handsome person, his popularity with his pupils, his recent title, and his acknowledged position in the social world. It was impossible for the public or the profession, for rival journals or for the frightened owners of vested interests, to really cry down THE LANCET as a worthless gutter production while Wakley was issuing in its pages week by week the work of such a man, and doing so without formal protest from the lecturer. The plan was tried with exemplary assiduity by numerous persons for upwards of ten years, but the note of scientific importance once struck by the Editor gave the key to his journal.

That Sir Astley Cooper himself did not resent the publication of his lectures in THE LANCET is certain. We have his own opinion on the matter, as stated to his

[1] Chapters I., II., III., IV., V., VI., VII., and VIII. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, 15th, and 22nd, respectively.

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faithful surgical class, who were prepared to uphold his view and would certainly be prejudiced towards a policy of remonstrance, as such a policy would have been in support of privileges of their own for which they had paid. The following is the first allusion made by Sir Astley Cooper to the publication of his lectures in THE LANCET, and it cannot be said to contain any sort of protest against Wakley's proceedings:—

"In detailing to you the errors into which surgeons have fallen I execute a very unpleasant task—a task much more disagreeable now, from the publicity which my lectures receive, than at any former period; but, as your pilot, it is my imperative obligation to warn you against those shoals and rocks which have foundered but too many of your predecessors. He who publishes the lectures, however, cannot be too particular in his discretion with regard to publishing names when those names are blended, as they sometimes are, with unfortunate cases.

"When I found, week after week, that my lectures were published, and that consequently I was daily paragraphed in the newspaper, I called upon the Editor of THE LANCET and told him that I was about to move for an injunction. He replied, 'That will not be of any use.' Well, gentlemen, in the end I told him that if he omitted my name I should take no further steps in the matter. He promised to do so, and as far as I have seen he has fulfilled his promise; and, of course, I have fulfilled mine. Indeed, the lawyer's instructions to counsel have been this very day destroyed.

"Now, gentlemen, though I did not regard the publication of my lectures I felt myself disgraced and degraded by my name forever appearing in the diurnal press. Not a paper could I see but my name flourished in it in some form or other. This looked so much like quackery, so much like puffing, that I am unable to describe to you how much it annoyed me. Although the publication of my lectures exposes me to the critical ordeal of my professional brethren, yet I fear it not; I care not who may be made acquainted with the doctrines I advance, the instructions I give, the principles I inculcate, while in this theatre. Therefore I am perfectly indifferent as to who publishes them, and equally indifferent as to who may be made acquainted with them."

This cannot be regarded as unqualified disapproval of a dedication to the public of property hitherto considered private. Sir Astley Cooper's attitude may be called professional but friendly. He had the foresight to know that wide dissemination of correct surgical teaching must be to the benefit of the profession of which he was the head. He had the acumen to see that to set up a claim to exclusive property in spoken words would be attended with legal and moral difficulty. His personal appreciation of his own position was not over-modest at any time, and he must have felt that *his* surgical classes would always remain well attended though the heavens should fall. Therefore, for liberal reasons he would be inclined to approve the publication of his lectures while for private reasons he would be indifferent. But for professional reasons he would at that time be bound to object. The hebdomadal appearance of his name in capital letters in a print which frankly contained some non-medical matter, though its circulation was among medical men, came as a recurring shock to his ideas of professional decency, and on this point, and the further one that his weekly lectures in THE LANCET were daily quoted in the daily press, he based his objection. And not quite his only objection; for, as will be seen by the concluding words of the speech to his class of which we have already quoted the opening sentences, and in which he is dealing with the impropriety of the publication by THE LANCET of reports of operations at the metropolitan hospitals, he was uncertain whether his extemporary addresses, naturally couched in familiar style, would have a literary merit commensurate with their scientific importance. With these small reservations Sir Astley Cooper may be said to have approved of Wakley's revolutionary departure. He certainly did not, as the smaller fry did, scream out "robber" and "thief":—

"Having said thus much respecting the lectures, I now deem it prudent, while I am on the subject, to state my opinion to you with regard to the publication of operations; this practice, I candidly confess, appears to me to be fraught with great danger, and will, I suspect, prove destructive to the reputation of the rising generation of surgeons. Suppose a very young surgeon had performed the operation lately executed by myself in the other hospital, and that it had terminated in death; suppose a young surgeon to be unfortunate for five or six operations in succession; would not the public, with one accord, exclaim, 'Good God! what a butcher that man is'? Such I fear would be the general feeling, and the ruin, the absolute ruin, of the operator, the unavoidable consequence. We must, I believe, hold a meeting of the surgeons for the purpose of adopting some measure by which, if possible, the system may be prevented. It is a practice to which I am opposed, and I will put it to the candour of any man, and ask if it be not calculated to produce much mischief? Believing this myself, it is a practice to which I much object. With regard to my lectures the case is different; I have a duty to perform in this theatre, and I have no objection for the whole world to be made acquainted with the manner in which it is discharged. I will here remark, however, that, in consequence of the colloquial style in which my lectures are delivered, they are not in that respect calculated for publication."

The arrangement mentioned by Sir Astley Cooper in his speech to his pupils under which he withdrew objection to the publication of his lectures if Wakley would, on his side, guarantee to suppress the author's name came into force in the tenth number of THE LANCET under somewhat droll circumstances and was loyally kept on either side. The name of the Editor of THE LANCET was not at first known. "Secrecy of design when combined with rapidity of execution," wrote that eccentric divine, the Rev. Charles Caleb Cotton, "like the column that guided Israel in the desert, becomes the guardian pillar of light and fire to our friends and a cloud of overwhelming and impenetrable darkness to our enemies." The secrecy with which THE LANCET had been planned and the suddenness with which it was placed before the public no doubt disconcerted the persons who would naturally be its foes. They had no time to organise either a counter-attack or a defence, nor did they know against whom to proceed. But a secret that was necessarily in the keeping of many persons did not long merit the description of impenetrable darkness, and within a few weeks it was circumstantially stated that Wakley was the enterprising editor. Other epithets were added according to the views of the speakers and their positions in the profession, but the quality of enterprise was never denied. At length it reached Sir Astley Cooper's ears that it was his old pupil at the school of the United Hospitals, Thomas Wakley, who was responsible for the unauthorised publication of the surgical lectures to the students at St. Thomas's Hospital, and the great man went personally to Norfolk-street to confer with the young editor. He obtained admission in the character of a patient, and caught Wakley, who at the time believed his secret to be inviolate, in the act of correcting a proof of one of the lectures in question, for, as has been already said, Wakley used his private house for his editorial purposes, the office a few yards away in the Strand being merely a place where communications were received and whence the business of publication took place. Never did a small check serve a man to better purpose than did Sir Astley Cooper's little "score"—there is no other word—serve Wakley. The great baronet was so pleased at the success of the rather transparent ruse that had gained him entrance and at the sight of Wakley's obvious discomfiture when he found his anonymity gone that any wrath he might have been cherishing was dissolved in hearty laughter. Friendly relations had previously existed between pupil and teacher and they were at once reassumed. With complete amicability the lecturer stated his views and the editor stated his. These latter could not have been otherwise than flattering to Sir Astley Cooper's pride, for Wakley's chief argument was that the publication of

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the lectures must be for the undoubted good of mankind. A compromise was speedily made to the effect already stated by Sir Astley Cooper. If Wakley would suppress the author's name no formal objection would be taken to the publication of the lectures. The agreement was loyally kept. In accordance with it the fifteenth and ensuing lectures of Sir Astley Cooper were issued without the author's name; and when proceedings were afterwards instituted by Abernethy, supported by other lecturers in a similar plight, to obtain an injunction against the publisher and printers of THE LANCET on the plea that the author's copyright in his lectures was infringed by their publication Sir Astley Cooper took no part in the quarrel.

(To be continued.)

EXPERIMENTAL RESEARCHES OF THE ROYAL COMMISSION ON TUBERCULOSIS.

I.—MEAT.

THE risk to human health from the consumption of meat and milk from tuberculous animals has been variously estimated. The subject attracted little attention until the infective nature of tuberculosis was realised and the extensive prevalence of the disease among cattle came to be understood. As regards meat, with which the present article is concerned, a view has been held within recent years that the presence in the body of a food animal of any lesion of tuberculosis, no matter how small in extent or chronic in character, is evidence that its meat is a danger to health and that no part of its carcase should be used as human food. This view, which found support in the early experiments of Gerlach in 1875 and Toussaint in 1880, received a general acceptance at the first and second Congress on Tuberculosis; and in 1891, at Paris, a resolution of the congress recommended the exclusion from sale of all meat coming from an animal affected in any degree by tuberculosis. The resolution of the Paris Congress has, however, been nowhere put into practice, and both in France and elsewhere authorities seem now agreed that its requirements were excessive. Nocard, in his recent work "Les Tuberculoses Animales," states his belief that the risk to man from meat even of cattle with advanced tuberculosis is nowise great; and a recent writer, Leclanche, goes further and expresses doubts of the existence of any risk at all. The experimental evidence upon which these different opinions have been based are, however, surprisingly small. Gerlach's original experiments (which in the absence of antiseptic precautions are open to question) and those of Nocard, Bang, Galtier, and Kastner are the chief; but no one of these observers has made any large or comprehensive series of investigations, and their results are conflicting—indeed, owing to the different methods pursued they are hardly comparable one with another. They do not afford us a clear understanding on the point of greatest interest to public medicine—namely, whether the meat from a tuberculous animal is or may be harmful, and if so what circumstances and conditions of tuberculosis in the animal give its flesh the harmful quality. The conclusions upon this question arrived at by the Royal Commission on Tuberculosis were published in their report of last year,[1] and, tardily enough, the evidence on which the report was based is now issued.[2] As might be expected, the evidence obtainable from witnesses, which forms the first part of the volume, only tells us of probabilities and adds little to the store of facts bearing on the case. The rest of the volume is mainly occupied with the records of experimental inquiries made for the Commission by Dr. Sidney Martin and by Dr. Sims Woodhead.

Dr. Martin records his numerous experiments in feeding and inoculating test animals with meat from cattle in different stages of tuberculosis. The first part of his inquiry contains a detailed description of the methods of keeping the test animals (guinea-pigs, rabbits, pigs, and a few calves) and the precautions observed to prevent accidental tuberculosis among them. Accidental tuberculosis could be guarded against in the rodents, but was more difficult to eliminate among the pigs, which in some cases were tuberculous when bought. The difficulty was met by purchasing litters of pigs and killing and examining certain pigs out of each litter to ensure its freedom from tuberculosis. In all, 203 guinea-pigs and eight rabbits were used as controls, being kept under the same conditions as the experimental animals, but not used for experiment. None of them developed tuberculosis. Five litters of pigs appeared to be free from tuberculosis when bought, and control pigs set apart from each of these litters remained free from the disease. Dr. Martin now describes the results of introducing manifestly tuberculous matter into these test animals, and details the post-mortem appearances in each species according as the matter has been introduced by subcutaneous inoculation, by intra-peritoneal injection, or by feeding. He points to the distinction between the tuberculosis produced by feeding in rodents, which is manifested largely by intestinal lesions, and tuberculosis similarly produced in pigs, where intestinal lesions are frequently absent altogether.

"The chief points to be noticed in these results—i.e., in the pig—as they bear on tuberculosis in the human being, is that by feeding with tuberculous material there may be no lesion in the alimentary tract; that there may be absorption only through the pharynx and tonsil, producing tuberculosis of the connected lymph gland, so that the condition of things exactly tallies with the 'strumous' glands of children and young adults; lastly, from feeding, there may be affection of the lymphatic glands alone, as in the fourth animal, and of an organ as widely separated from the seat of infection as the epididymis of one testicle."

The second part of this inquiry deals with the effect of feeding or inoculating other test animals with meat of twenty-one cows in different stages of tuberculosis. The carcases were "dressed" in the ordinary way by the butcher or after the butcher's fashion, and convenient pieces of meat were then removed with a sterilised knife, the pieces being in some instances further "trimmed" by removing a layer about one-eighth of an inch thick from the cut surfaces. The meat was then minced or in some cases used to supply meat-juice, always with precautions against accidental contamination. Throughout the experiments muscle substance only was employed; fat, tendons, and lymph glands in the intermuscular spaces were removed and no obvious tuberculous mass was allowed to remain. The minced meat was given to rodents with their ordinary food previously sterilised. Pigs were fed with the meat only. Inoculations with meat and meat-juice were performed on other rodents. Eight of the twenty-one cows are classified as showing "mild," eight "moderate," and five "advanced and generalised" tuberculosis. Dr. Martin admits that such a classification is by no means an exact one; in a particular animal tuberculosis apparently "mild" may be in an active stage of generalisation, and its meat on that account may be possibly more infectious than that from an animal with more extensive but less active tuberculosis. For practical purposes, however, "mild" cases comprise those with tubercle of organs and glands almost wholly contained in one body cavity; "moderate" comprise tubercle of organs and glands in both pleural and peritoneal cavities, but without signs of extensive generalisation; while the "advanced and generalised" class comprises all more extensively diseased, including most animals in which lumbar and pelvic glands were affected and all which had tubercle in kidney or udder. Meat from each of the twenty-one carcases, with two exceptions, showed no tubercles or tubercle bacilli in the specimens examined. A single tubercle was found in the meat of each of two cows with "moderate" tuberculosis, both of which had been injected with tuberculin previously to slaughter. The results of the feeding and inoculation experiments with the meat are given in full detail. Space only permits us to give the summary in Section 81:—

"A. ..... Of 48 animals inoculated with meat or meat-juice 10 developed tuberculosis; of 102 animals (guinea-pigs, rabbits, pigs) fed with the meat 6 developed tuberculosis. These positive results were obtained from the meat of 8 of the cows—viz., of 1 cow with mild, of 3 with moderate, and of 4 with advanced and generalised tuberculosis.

"B. If the cases of advanced and generalised tuberculosis are excluded from consideration, it is seen that in experiments with the meat of 16 cows, the subjects of a mild or moderate degree of tuberculosis, the following results were obtained: of 35 animals inoculated with the meat or meat-juice 5 developed tuberculosis, and of 81 animals fed with the meat not one showed any sign of the disease.

"C. With the meat or meat-juice of 4 cows the subjects of generalised tuberculosis 13 animals were inoculated, 5 developing tuberculosis; with the meat of 4 cows 21 animals were fed, 6 developing tuberculosis."

[1] THE LANCET, April 27th, 1895.

[2] Report of the Royal Commission on Tuberculosis, Parts II. and III. London: Eyre and Spottiswoode.

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Many noteworthy points were brought out by these experiments. In the first place, the meat of no one carcase was so infective as to produce tuberculosis in all the animals which received it by inoculation and still less in all the animals fed with it. Some animals responded to the test of inoculation with juice from meat of a particular carcase, while the same meat produced no effect when given as food to other animals. In a few cases, on the other hand, feeding with meat produced tuberculosis, while inoculations with the same meat were without effect. Further, where tuberculosis was produced in experimental animals its characters varied greatly; in some the course of the disease was as rapid and generalised as in animals of the same species treated in the same way with manifestly tuberculous matter. In others the disease, whether produced by inoculation or by feeding, ran a chronic course and the lesions were found distinctly localised post mortem. Some guinea-pigs injected with a particular meat-juice in both groins developed chronic tuberculosis on one side, while the other side remained unaffected. Yet the meat-juice which had given such a limited tuberculosis in one guinea-pig produced an acute generalised tuberculosis in another treated in the same way. Broadly speaking, the infectivity of the meat of each cow was shown to be greater as the degree of its tuberculosis had been greater, but Dr. Martin lays great stress on this great irregularity of the results obtained. The irregularity was hardly to be explained by assuming variations in the number of tubercles or of tubercle bacilli in the meat substance itself, for neither tubercles nor bacilli could be demonstrated in the substance of the meat which proved infective. Dr. Martin advances a consideration, however, which explains some of the anomalies he met with. The butcher, in preparing the meat for sale, uses the knife with which he has already incised the tuberculous lesions present, and his cloth also must needs be contaminated with tuberculous matter. By these means tuberculous material becomes smeared over the surface of the meat, and when so smeared will be irregularly distributed over the carcase, while the amount of contamination thus produced in the carcase of a particular animal will be roughly proportional to the extent of the tuberculosis of that animal. Irregular results such as Dr. Martin had obtained thus admitted of explanation when smearing was taken into account, and he shows grounds for believing that contamination by smearing is a common, if not the most frequent, way in which meat from tuberculous animals acquires its infective property. The Commissioners accepted Dr. Martin's view of the contamination of actual meat substance by the knives and cloths of the butcher, but point out, in Section 47 of their report, that to have demonstrated this extrinsic way of rendering meat dangerous was to destroy the evidence that might otherwise have been obtained respecting the wholesomeness or unwholesomeness of the proper meat substance towards test animals. It will be noted that by removing fat and all intermuscular substance from the meat used in his experiments Dr. Martin had removed parts not unlikely to contain minute tubercles or tuberculous lymph glands, and which, especially in an animal the subject of generalised tuberculosis, may not infrequently render meat infective.

Dr. Martin concludes Part II. of the inquiry by formulating certain rules for the condemnation, or otherwise, of carcases of tuberculous animals. These rules assume an acquaintance with the distribution of tubercle in the animal at the time of slaughter, and assume that proper precautions are taken in dressing the carcase, conditions obtainable only in a public abattoir under skilled supervision. After showing that there is no question that advanced and generalised tuberculosis in cattle should ensure condemnation of the whole carcase, he points to the difficulties as regards "mild" and "moderate" cases of the disease. Taking into account both the danger of smearing and the amount of generalisation in each case he would condemn—

"Animals in which tuberculosis of the thoracic organs was associated with disease of the abdominal organs, or in which tuberculosis of the abdominal organs was associated with disease of the lungs and thoracic glands.

"Similarly, all animals with tuberculosis of the lumbar or popliteal glands or of the kidneys would be condemned, since these lesions are a sign of the generalisation of the disease.

"Cases only of tuberculosis limited to one body cavity ought to be passed—e.g., those in which the pleura, lungs, or thoracic glands alone, or those in which the intestines, mesenteric glands, and udder alone are affected."

Before passing such carcases Dr. Martin would require the complete removal of any obvious tuberculous mass. This can only be done in the case of "grapes" on the parietal pleura by stripping the pleura, and such a proceeding, it is stated, should ensure the condemnation of the carcase as damaged, if not as dangerous. Apart from such cases the above rules would have passed twelve and condemned nine of the twenty-one carcases experimented on. Dr. Martin's inquiry contains many matters of interest besides those already indicated. His observations on the difference in virulence of tuberculous material obtained from different sources, upon the production of "bacterial necrosis" apart from tubercle in guinea-pigs, and upon the pathology of tuberculosis in different animals are particularly worth studying.

Dr. Woodhead's inquiry deals with the power of cooking to destroy tuberculous matter in meat. His experiments on the temperature of joints under different conditions of cooking will be of much value to all interested in the thermometry of cooking processes. Besides determinations of this sort he submitted to experiment meat to which demonstrably infective tuberculous matter had been added in various ways so as to imitate, as far as possible, meat smeared with tuberculous matter in process of dressing or containing tubercle in its deeper parts. This "artificially tuberculous" meat was cooked in different ways, record kept of the maximum temperature reached at different depths, and portions taken to feed and inoculate test animals. Dr. Woodhead concludes that no cooking process can be relied upon to destroy the infectivity of tubercle bacilli in any but the parts near the surface. Even the danger of meat smeared with tuberculous matter is not wholly prevented by cooking, for strips of meat so smeared are likely to be made into "rolls of beef" by the butcher, and Dr. Woodhead's experiments leave no doubt of the infectivity of the interior of such rolls after cooking. He also indicates that rolls are habitually made up from parts of the carcase most liable to contain tuberculous serous membranes and glands.

THE OBJECTS AND AIMS OF THE CIVIL RIGHTS DEFENCE COMMITTEE.

THE primary purpose for which the Civil Rights Defence Committee was formed was to assist Mr. R. B. Anderson to appeal to the Privy Council for the reversal of those illegal judgments and orders of colonial judges which were emphatically condemned by Royal Commissioners as "judicial persecution" and a "public danger." These judgments and orders remain in force, controlling Mr. Anderson's personal liberty and preventing him from returning to Tobago to carry on his practice, collect his debts, dispose of his property, or in any way satisfactorily to settle his affairs. To vindicate his rights and to obtain personal redress Mr. Anderson brought an action in the High Court of Justice in England. This action—Anderson *v.* Gorrie and others—came on for trial in April, 1894, before the late Lord Chief Justice Coleridge and a Middlesex special jury. One of the defendants, Sir John Gorrie, Chief Justice, died before the trial. Mr. Justice Lamb gained a verdict on the ground that he had not acted maliciously; whilst against Mr. Justice Cook, the remaining defendant, after a seven days' trial, conducted with remarkable ability and tenacity by Mr. Anderson in person, he obtained the following memorable verdict:—"The jury find that the defendant Cook oppressively and with malice overstrained his judicial powers to the prejudice of the plaintiff and the wilful perversion of justice," and found a verdict for the plaintiff for £500. On this verdict being given, on May 4th, 1894, Lord Coleridge entered judgment for the defendant, on the ground that the action did not lie against a judge. This decision has been affirmed by the Court of Appeal, although Mr. Anderson has challenged the competency of the court to decide the question, because at the time Lord Esher sat and pronounced judgment an action of a similar character—viz., Yeatman *v.* Soden, Young, Parfitt, and Lord Esher—was then depending against him, and because the judgment Lord Esher pronounced against Mr. Anderson became a precedent which Lord Justices Lindley and A. L. Smith actually used on Nov. 9th, 1894, to quash the action for slander against Lord Esher. This, Mr. Anderson contends, is tantamount to Lord Esher sitting and pronouncing judgment in his own case. Efforts made by Mr. Anderson to have the Appeal Court differently constituted to hear his case have failed, as might have

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been anticipated, and Mr. Anderson is seriously hampered in his efforts to carry his case to the House of Lords by a further decision of the judges not to furnish him with the orders of the court made in his case which are technically necessary for prosecuting his appeal. It is this contemplated appeal to the House of Lords which constitutes the second immediate object of the Civil Rights Defence Committee. The appeal is necessary for two purposes—viz., first, to secure to Mr. Anderson if possible the fruits of the triumphant verdict gained by him in the action Anderson *v.* Gorrie and Others, and, secondly, to ascertain authoritatively the state of the law in reference to the doctrine of judicial immunity which, since Lord Coleridge set aside the verdict referred to on the ground that the action did not lie against a judge, has been carried to an extreme limit. The importance of the appeal to the House of Lords cannot be over-estimated on public grounds. The Civil Rights Defence Committee is advised that the judgment of the Appeal Court in Mr. Anderson's case is a formal declaration that for acts, however illegal, in direct violation of Magna Charta and the Bill of Rights, depriving the subject of his right to earn his living by his calling or profession, and of his lawful charges for work and services, inflicting penal damages upon him for the proper exercise of his calling or profession, and maliciously and contrary to Magna Charta and the Bill of Rights enforcing these illegal judgments by illegal imprisonment, by the imposition of excessive bail, which Lord Coleridge called "unmitigated unlawful tyranny," and by every species of oppression, including malicious criminal prosecution for petitioning the Sovereign, the subject has no right of remedy whatever. The committee is also advised that there is no precedent for such a judgment. If, however, contrary to the advice obtained and the expectations of the committee, the House of Lords should decide that the Court of Appeal has correctly interpreted the law, then it will become necessary for the committee to endeavour to obtain in some other way redress for Mr. Anderson, who has so long and so courageously maintained an unequal contest in defence of rights common to himself, the profession, and every British subject, and in the interest of the rights and liberties of the individual, to devise some remedy against the infliction of similar injuries in the future through the perversion of judicial processes, which were intended to secure the impartial administration of justice between man and man, and which it is now maintained can be perverted maliciously by judges with impunity. With these objects in view, and in order to strengthen the committee in its arduous struggle, a conference was held between a deputation of the committee and several members of Parliament at the House of Commons on Aug. 29th, 1895, when Mr. Cohen, M.P., expressed the opinion that a judge ought to occupy a position of impregnable immunity for any action which he commits in his judicial capacity, but that he ought to be less instead of more protected in case he ever should allow himself to overstep the bounds, make them as wide as they can be made, of judicial action and judicial procedure. The general issue of the conference was so encouraging that the committee has drawn up a form of memorial from constituents to members of Parliament asking them to give their attention to the reports of the Civil Rights Defence Committee and to afford to the committee their personal coöperation both in and outside Parliament. These memorials are being widely circulated and signed and will no doubt exercise a most favourable influence upon the fortunes of the cause. It is recognised by the committee that the success of their efforts depends upon the creation of an overwhelming body of public opinion in favour of the principles which they are engaged in advocating. Personal redress for Mr. Anderson, the preservation of the ancient rights and liberties of Englishmen, the adequate protection of the subject against malicious and illegal injuries inflicted by judges outside their jurisdiction, and security for the privileges conferred by their diplomas on medical practitioners generally can only be achieved by obtaining the widest publicity for the facts of Mr. Anderson's case. It will then be seen that the principles involved are those in which every medical man and every person in the kingdom has an interest. The present mode of administration of the law is uncertain and unsatisfactory, and the uncertainty of the law compels great numbers of people to submit to injuries inflicted rather than face the certainty of loss and the probability of contumely which await those who in the pursuit of their just rights have recourse to the regular tribunals. When law is administered, not as it is, but according to the discretion or indiscretion and caprice of the judge, when appeals are attended by unnecessary vexation and delay it is no wonder that citizens shrink from seeking what they cannot find, justice at the hands of the law, but resort; wherever it is possible, to extra-judicial channels and tribunals of arbitration. To remedy this state of things the Civil Rights Defence Committee is appealing to public men and public bodies generally, striving to enlist their coöperation in the defence of the civil rights of British subjects all over the world against the dangerous encroachment of the doctrine of judicial discretion, irresponsibility, and immunity even for the commission of acts expressly prohibited by statute law.

THE MEDICAL DEFENCE UNION, LIMITED.

THE ordinary general meeting of the Medical Defence Union, Limited, was held at the rooms of the Royal Medical and Chirurgical Society, 20, Hanover-square, London, W., on Feb. 21st, the business being to receive the annual report of the Council and statement of accounts for the past year, to elect three members to the Council, and to transact other business.

The report states that the work of the Union has again exceeded that of any previous year. The number of applications from members for advice and assistance made to the Council is greater than before. The Council has been fortunate enough during the past year to have escaped taking many cases into court, with the result that, although a large amount of legal work has been successfully carried through, it has been at the cost of persons outside the Union. Libel actions have been brought against members, and the Union, on behalf of members, has brought similar actions against those outside the profession, and in each case the action has terminated by the costs being paid by the "other side" without trial, and suitable and satisfactory public apologies and retractions have been obtained. There can hardly be a doubt that such a satisfactory result would not have been obtained if the member aggrieved or attacked had brought or defended the action in his individual capacity; the mere fact that the Union was acting for the person injured certainly influenced the result. At the early part of the year Dr. Granville Bantock, the honorary treasurer, tendered his resignation. Dr. J. A. Masters, formerly one of the honorary secretaries, was elected in his stead, and Dr. Campbell Pope was appointed to fill the vacant position as honorary secretary. During the year it became evident that the time had arrived when a paid general secretary should be appointed and required to give all necessary time to the duties of his office, and Dr. A. G. Bateman was duly appointed. Over 1000 applications had been received during 1895 from members for aid, advice, and assistance.

Mr. VICTOR HORSLEY, the President, in submitting the report, said that increase of membership had necessarily entailed an increase of work which, however, had been carried out with singular success. In commenting on the legal work that had been accomplished during the year he referred to the help that the Council had received from the tact and sound judgment of Mr. Hempson, the Solicitor. The financial report showed that at the end of the year 1895 there were no liabilities and a large balance in hand, and although the work of the Union had greatly increased the expenses had greatly decreased, the chief factor being the diminution in the law expenses. He asked those who thought defence work costly and financially a dangerous work to undertake to compare the position of the Union three years ago with its present standing. Fresh members were wanted and each member of the Union should induce two or three new members to join. The working expenses of a staff necessary for 4000 members would not be greater than that required for 2000. While speaking of the staff he would like to congratulate Dr. A. G. Bateman on the energy and success with which he carried out their business. With regard to the question of the British Medical Association subsidising the Union for the purpose of prosecuting quacks the Council of that Association had decided adversely to the proposal. He was in favour of the resolution passed at the last annual meeting of the British Medical Association that the Association should take

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steps for the purpose of taking up medical defence, because it approached nearer to the ideal that the whole of the profession should defend each of its members. If the scheme were carried out the British Medical Association would practically absorb the Medical Defence Union. That would be a very happy kind of despatch, because with very few exceptions the members of the Medical Defence Union were members of the British Medical Association. Members of the Medical Defence Union very often forgot that they, a few thousand members of the profession, were actually doing the work of the profession itself. That was not recognised by the medical press or by the profession itself to any large extent. He then gave a brief history of the proceedings taken with regard to the amalgamation of the Medical Defence Union with the London and Counties Medical Protection Society. A committee of that society was now sitting to decide the only point of difference remaining between the two societies—namely, as to the name of the amalgamated bodies.

Mr. STAMFORD FELCE, who seconded the adoption of the report, remarked that the name of the Medical Defence Union was not only a power in the land, as stated by Dr. Bridgwater at their last annual meeting, but was really a name to conjure with. He thought it very desirable that the name of the Medical Defence Union should be retained.

Dr. W. COLLIER asked that some discussion might take place with regard to the question of the work of the Union being undertaken by the British Medical Association.

Mr. E. BERDOE objected to amalgamation with the British Medical Association. The work could not be well done by a great scientific body like the Association. He was afraid that a number of persons now members of the Medical Defence Union would not be inclined to join the British Medical Association. His friend, Mr. George Brown, had told him that about two-thirds of the members of the Union were members of the British Medical Association. He wished to know what was to be done with the non-members of the British Medical Association.

Other speakers took part in the discussion, and the report was then adopted.

The retiring members of the Council—Mr. Victor Horsley, Mr. Stamford Felce, and Dr. Granville Bantock—were re-elected and the auditors appointed for the ensuing year.

Mr. E. BERDOE then moved a resolution (which was eventually withdrawn) for the purpose of provoking a discussion on the desirability of merging the identity of the Union with the British Medical Association.

Mr. KEELE thought they had far better remain separate from the British Medical Association. He was not a member of that body and he did not intend to become one.

Mr. HORSLEY explained that the Council of the British Medical Association at the present moment could give no decision, because the committee which had been appointed to inquire into the matter would not report till the meeting of the Association at Carlisle.

Dr. WALTER SMITH was strongly in favour of the movement, but he thought that the present meeting should not come to any decision in the matter as it had not been put down on the agenda.

Mr. STAMFORD FELCE thought that if all members of the Union were members of the Association the work would be done better.

Mr. GEORGE BROWN was agreeable to the Association taking up the work of the Union if he could be quite sure that the work would be done as well as it was being done now. He was not particularly confident that the Association would be the very best body to take up the work.

Dr. CARTWRIGHT thought the discussion futile because they had no definite proposition before them.

Dr. COLLIER thought a larger body of the profession would do the work better than a small body.

Mr. W. J. C. NOURSE said the British Medical Association did not represent the medical profession in the United Kingdom. It was a very large body, but there were a great many medical men of standing who, for some reason or other, preferred not to belong to it, and there were others unable to belong to it. Personally he would much prefer to trust his interests to the Medical Defence Union than to a committee of a large body like the British Medical Association.

After some remarks from Dr. W. S. A. GRIFFITH and Mr. E. C. BOUSFIELD,

Dr. CAMPBELL POPE said the main point to keep before the mind was that the work of medical defence was understood by but few. It was a business that had to be learned.

Mr. A. MARMADUKE SHEILD said the British Medical Association was not, as they knew, uniformly popular with everyone. Some of the leading men of the profession would have nothing to do with the British Medical Association, but he thought there was no sane man who would refuse to join the Medical Defence Union. It was possible that in the future the Medical Defence Union might become a more important body than the British Medical Association.

After some remarks from Dr. BARNES the meeting terminated, Mr. HORSLEY having left the chair before a vote of thanks could be accorded to him.

THE LONG TRANCE AT THE ROYAL AQUARIUM.

As will be seen in another part of our present issue Mr. Josiah Ritchie, the Chairman and Managing Director of the Royal Aquarium has sent us a letter of protest in reference to an annotation entitled "To the Degradation of the Spectator." To this we gladly give publicity, but we are still of opinion that "it is in truth, high time that such public exhibitions were stopped; to science they are of no purpose, to the subject they are dangerous, and to the public they are demoralising. It is indeed a pity that any medical man should so far lose his self-respect as to encourage them." That our readers might gather some idea of the "show" for which some possessed of morbid minds apparently paid a guinea to witness—this being the highest price for a stall—we sent a representative to the Royal Aquarium on the occasion of the awakening of the man referred to in our annotation of the 15th inst. In spite of our acknowledged hostility to such exhibitions Mr. Ritchie courteously allotted our representative a seat in the stalls, and the following is a report of the proceedings as it presented itself to his eyes. From the position it was, of course, impossible to note the changing states of the subject—such as the change from abdominal to thoracic breathing—very minutely, but the following report will give a good idea of the "performance."

The thirty days' trance ended on Thursday, Feb. 20th, at 10.30 P.M., and shortly before this time a large box resting on four legs was brought in and placed in an inclined position before the audience, one end resting on the stage and the other on the partition separating the orchestra from the stalls. On a light covering being removed from the top of the box the subject was presented to view, and except for the slight colour of the face had the appearance of a corpse reposing in a coffin. Another subject was brought in who was in a short trance only and then "Professor" Fricker, addressing the audience, said Mr. Johnstone was put into a trance on Jan. 21st and had remained in the trance-room ever since. The trance was produced by hypnotism, a development of mesmerism and in its deepest stage. He would not undertake to put everybody into a trance, but he thought it probable he would be able to put three persons out of four into a deep state. The temperature of Johnstone had averaged 97·2° and the pulse about 50. The lowest temperature was 96·4° and the highest 98·8°. The genuineness of the trance had been authenticated by the man being watched day and night and also by his subjection to various tests, such as the static spark and a needle thrust under the nail. A penknife had been run through the hand and a vein perforated and the bleeding stopped. Slight twitches had been occasionally seen. Mr. Fricker explained that his motive was to show the harmlessness of a long trance. The man would wake up in good health. During the thirty days he had lost about 10 lb., but the opinion of medical men who had examined him was that he was none the worse for the trance. There was no dreaming, and such trances were beneficial to people suffering from overwork either mental or physical. The man had been a soldier and he had not been in the habit of going into trances. Mr. Fricker had met the man in May last, and he had put him into one or two short trances of a few hours and one of several days. He had not, however, been hypnotised since June last.

A gentleman in the audience here rose and said he was prepared to swear on oath that Mr. Johnstone on being put on to the stage had opened his eyes and rapidly closed them. A lady also corroborated his statement.

Mr. Fricker said from his experience it was utterly impossible for a man in Mr. Johnstone's state to open his eyes.

Amidst some confusion voices called to know whether there were any medical men present. A gentleman rose on the platform and took off his hat, but declined to answer for some time to questions of "Name." Eventually he gave his name, but he did not give either his Christian name or address. On this being insisted upon by the gentleman who said he saw the subject open his eyes, cards were exchanged.

A needle was thrust under the thumb nail and through the arm of the short-trance man, and he was afterwards quickly awakened. He rubbed his eyes and presented the appearance of a man who had just recovered from a deep slumber.

Mr. Fricker then turned his attention to Mr. Johnstone. A needle was thrust under the nail of the thumb, and the medical man was asked whether he thought the test sufficient. He replied in the affirmative, and said he thought the present case a very good and typical example of hypnotism. There was nothing marvellous in it

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except that the trance had been so prolonged. The interest would be to see what happened when he awoke.

Mr. Fricker explained that the man had been fed on sterilised milk, and recently he had had a little of Liebig's beef peptone, which he thought had been beneficial, as there had been less loss of weight. The process of awakening then commenced. Mr. Fricker first manipulated the subject's fingers, then gently shook the limbs with upward passes, afterwards making the usual passes over the face. At the expiration of three minutes and a half the man showed some signs of returning animation, and a few seconds later he moved his head slightly. [Here Mr. Fricker said several hypnotists had tried to arouse the subject, but had failed after in some cases half-an-hour's trial. On being asked what would have happened if from any cause he (Mr. Fricker) had been unable to have fulfilled his task, he said he had suggested to the subject before going to sleep that he was to awake in about forty days. It had been proved that such a suggestion made to a subject before going to sleep would have an effect.] Seven minutes and three-quarters had now expired and a little milk was given to the subject. It was explained that he was not yet properly awake, and that a little brandy had been added to the milk. Mr. Fricker then asked the man, "How are you? What have you been doing all this time?" and the man then replied, "Where am I?" The further questions, "Are you hungry? When did you have a good meal last?" were then put. By this time exactly twelve minutes had elapsed. The subject replied, "I had a meal on the 19th January."

"Did you have anything on the 20th?"

"I had very little on the 20th."

In answer to further questions he only remembered going to sleep in the trance-room and nothing during the interval. He could not remember having had any dreams.

Mr. Johnstone, who seemed in a very dazed state, was propped up in the box and eventually placed upon a chair, but he was very weak and unable to stand even with assistance.

Before being carried off the stage it was explained that his pulse was regular and there appeared to be nothing the matter with him but weakness. Mr. Johnstone himself said he was giddy, weak, and stiff.

In this account there is nothing extraordinary, many similar cases of trance induced hypnotically being on record. The explanation of such trances depends upon the view we take of the general subject of hypnotism. Heidenhain's doctrine that hypnotic phenomena are due to inhibition of certain portions of the cortex of the brain seems the most probable view in the present state of our knowledge, but it leaves much unexplained. We shall require to make large advances in psychology and in our knowledge of the mutual relation of body and mind before any complete and satisfactory doctrine of hypnotism will be possible. In the meantime, we must express our strong disapprobation of these public experiments, for, as we have already said, they do not advance knowledge in any way, but simply minister to a curiosity that is not praiseworthy. Mr. Fricker's claim that this prolonged trance is likely to be beneficial to those overworked physically or mentally, strikes us as most unfounded. All the evidence at our disposal points to the conclusion that hypnotic experiments exhaust the individual who is the subject of them and leave him unfit for either physical or mental exertion. That such procedures should possess any therapeutic value seems in the highest degree improbable. Rest and recuperation can be obtained by much less questionable and perilous methods. The subject of these experiments on waking from his trance is described as being "in a very dazed state" and as "very weak and unable to stand even with assistance." Truly a somewhat unsatisfactory result of a measure intended to benefit those suffering from the effects of overwork.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6017 births and 4052 deaths were registered during the week ending Feb. 22nd. The annual rate of mortality in these towns, which had been 20·5 and 19·3 per 1000 in the two preceding weeks, rose again last week to 19·4. In London the rate was 20·0 per 1000, while it averaged 19·1 in the thirty-two provincial towns. The lowest rates in these towns were 12·7 in Burnley, 12·9 in Nottingham, 13·0 in Hull, 13·7 in Croydon, and 14·3 in Portsmouth; the highest rates were 22·9 in Brighton, 23·4 in Bolton, 23·8 in Preston, 24·6 in Liverpool, and 27·4 in Norwich. The 4052 deaths included 561 which were referred to the principal zymotic diseases, against 559 and 512 in the two preceding weeks; of these, 196 resulted from measles, 176 from whooping-cough, 83 from diphtheria, 44 from "fever" (principally enteric), 32 from scarlet fever, 30 from diarrhœa, and not one from small-pox. No fatal case of any of these diseases occurred in Preston; in the other towns they caused the lowest death-rates in Brighton, Swansea, Hull, and Bradford, and the highest rates in Birmingham, Leicester, Wolverhampton, Norwich, and Burnley. The greatest mortality from measles occurred in Croydon, London, Birmingham, Leicester, Norwich, and Burnley; and from whooping-cough in West Ham, Cardiff, Sheffield, Bolton, and Manchester. The mortality from scarlet fever and from "fever" showed no marked excess in any of these large towns. The 83 deaths from diphtheria included 48 in London, 4 in Liverpool, 3 in West Ham, 3 in Wolverhampton, 3 in Birmingham, and 3 in Burnley. No fatal case of small-pox was registered in any of the thirty-three towns. There were 58 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 22nd inst., against 74, 64, and 60 at the end of the three preceding weeks; 5 new cases were admitted during the week, against 12, 6, and 12 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2937, against 2879, 2883, and 2944 on the three preceding Saturdays; 234 new cases were admitted during the week, against 273, 285, and 303 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 446 and 402 in the three preceding weeks, further declined to 377 last week, and were 204 below the corrected average. The causes of 58, or 1·4 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Salford, Oldham, Leeds, Newcastle-upon-Tyne, and in twelve other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Liverpool, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 18·8 and 19·1 per 1000 in the two preceding weeks, further rose to 19·5 during the week ending Feb. 22nd, and was 0·4 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·7 in Leith and 16·4 in Paisley to 20·5 in Perth and 21·6 in Dundee. The 570 deaths in these towns included 32 which were referred to whooping-cough, 12 to diarrhœa, 6 to scarlet fever, 5 to "fever," 4 to measles, 1 to diphtheria, and not one to small-pox. In all, 60 deaths resulted from these principal zymotic diseases, against 77 and 66 in the two preceding weeks. These 60 deaths were equal to an annual rate of 2·1 per 1000, which was 0·6 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had declined from 37 to 30 in the three preceding weeks, rose again to 32 last week, of which 16 occurred in Glasgow, 5 in Aberdeen, 4 in Edinburgh, and 4 in Dundee. The 12 deaths referred to diarrhœa showed a slight further decline from those recorded in recent weeks, and included 4 in Glasgow and 3 in Dundee. The fatal cases of scarlet fever, which had been 10, 6, and 7 in the three preceding weeks, declined to 6 last week, of which 3 occurred in Edinburgh and 2 in Glasgow. The 5 deaths referred to different forms of "fever" corresponded with the number in the preceding week, and included 2 in Glasgow and 2 in Edinburgh. The fatal cases of measles, which had been 4 and 5 in the two preceding weeks, were 4 last week, of which 2 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 106 and 105 in the two preceding weeks, rose to 120 last week, but were less than one-third of the very high number recorded in the corresponding week of last year. The causes of 35, or more than 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the four preceding weeks from 27·4 to 22·5 per 1000, further fell to 19·8 during the week ending Feb. 22nd, a lower rate than has been recorded in any week since August, 1894. During the past eight weeks of the current quarter the death-rate in the city has averaged 25·1 per 1000, the rate during the same period being 19·3 in London and 17·2 in Edinburgh. The 133 deaths registered in Dublin during the week under notice showed a decline of 18 from the number in the preceding week, and included 2 which were referred to

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the principal zymotic diseases, against 7, 10, and 8 in the three preceding weeks; of these, 1 resulted from scarlet fever and 1 from enteric fever, while no death was attributed either to small-pox, measles, diphtheria, whooping-cough, or diarrhœa, These 2 deaths were equal to an annual rate of only 0·3 per 1000, the zymotic death-rate during the same period being 3·4 in London and 2·3 in Edinburgh. So low a zymotic rate has not been recorded in Dublin in any week since July, 1894. The 133 deaths registered in Dublin last week included 23 of infants under one year of age, and 40 of persons aged upwards of sixty years; the deaths of infants corresponded with the number recorded in the preceding week, while those of elderly persons showed a slight decline. Four inquest cases and 4 deaths from violence were registered; and 46, or more than a third, of the deaths occurred in public institutions. The causes of 6, or nearly 5 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

MOST of the medical officers of the Ashanti Expeditionary Force have arrived, or will have arrived within the next few days. Amongst them are Surgeon-Colonel Taylor, Brigade-Surgeon-Lieutenant-Colonel Townsend, Surgeon-Lieutenant-Colonel Blennerhasset, Surgeon-Majors Beatty and Dodd, and Surgeon-Captains Corcoran, Burke, and Maher. Surgeon-Major Wilson remains on the West Coast of Africa to undertake a tour of service. Surgeon-Captain Beveridge has been posted to the Western District, Surgeon-Captain Borrodaile to Colchester, and Surgeon-Captain Hale to the Thames District. Surgeon-Majors Geoghegan and Woods and Surgeon-Captain Kelly have arrived from India, and Surgeon-Lieutenant St. John Killery has embarked for Madras.

ARMY MEDICAL STAFF.

Surgeon-Captain William H. Bean is placed on temporary half pay on account of ill-health.

NAVAL MEDICAL SERVICE.

The following appointments are notified:—Staff-Surgeons: S. T. O'Grady to the *Grafton;* C. E. Geoghegan to the *Collingwood;* and Thomas E. H. Williams to the *Defiance.* Surgeons: John E. H. Phillips to the *Boscawen* for the *Sea-flower;* Sidney T. Reid to the *St. Vincent* for the *Martin;* Paul H. M. Star to the *Impregnable* for the *Nautilus;* Arthur A. Bankart to the *Impregnable* for the *Pilot;* Patrick W. MacVean, M.B., to the *Lion* for the *Liberty;* John F. Hall, M.B., to the *Caledonia* for the *Sealark* (all lent during the training season); Cecil H. Rock to the *Spider;* H. W. G. Green and T. W. Philip to the *Imperieuse;* R. L. Price to the *Northampton;* J. H. Stenhouse to the *Grafton;* L. Bidwell to the *Collingwood;* W. Spry to the *St. Vincent;* and O. Rees and G. T. Collingwood to the *Pembroke.*

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant Eustace Maude Callender, 12th Middlesex Volunteer Rifle Corps, to be Surgeon-Lieutenant.

YEOMANRY CAVALRY.

Denbighshire (Hussars): Surgeon-Lieutenant R. Williams to be Surgeon-Captain.

VOLUNTEER CORPS.

Artillery: 1st Cheshire and Carnarvonshire: John Oldershaw, M.D., to be Surgeon-Lieutenant. 1st Berwickshire: William Douglas Forsyth, M.B., to be Surgeon-Lieutenant. *Rifle:* 2nd (the Weald of Kent) Volunteer Battalion the Buffs (East Kent Regiment): Peter Paget, gent., to be Surgeon-Lieutenant. 5th Volunteer Battalion the Cheshire Regiment: Surgeon-Major P. M. Davidson to be Surgeon-Lieutenant-Colonel, 2nd (Berwickshire) Volunteer Battalion the King's Own Scottish Borderers: John Young, M.B., to be Surgeon-Lieutenant. 3rd (Duke of Connaught's Own) Volunteer Battalion the Hampshire Regiment: Bonner Harris Mumby, M.D., to be Surgeon-Lieutenant. 1st (Renfrewshire) Volunteer Battalion Princess Louise's (Argyll and Sutherland Highlanders); Alexander Leitch, M.B., to be Surgeon-Lieutenant.

VOLUNTEER MEDICAL STAFF CORPS.

The Manchester Companies: Alic Phillips, Gent., to be Surgeon-Lieutenant.

THE FRENCH ARMY MEDICAL SERVICE.

The regulations for admission to the French Military School of Medicine have lately undergone considerable alteration. In future all candidates will be called on to produce diplomas testifying to their proficiency in letters and philosophy (Baccalauréat de l'enseignement secondaire classique), together with certificates showing that they have successfully studied physics, chemistry, and the natural sciences, and likewise documentary evidence to the effect that they have taken out four of the sixteen "inscriptions" that are required for the doctorate of medicine. The special tests that have next to be surmounted are three in number. The first consists of a dissertation in French upon a philosophic subject, a composition on physiology and chemical biology, and a thesis in German about one page in length. In the second test each candidate has to answer two questions (drawn at random) in anatomy and histology, and in the third he is subjected to oral interrogation for a space of twenty minutes on elementary general medical and surgical pathology, and minor surgery. It will be seen that botany and zoology have vanished from the programme, besides European history &c. The marks allowed for each subject are as follows: philosophical dissertation, 5; physiological composition, 20; German theme, 4; anatomy and histology, 20; general medical and semeiological pathology, 10; and surgical pathology and minor surgery, 10. At the final examination an allowance of twenty marks is made to all candidates who are in possession of the full degree of "Bachelier ès Sciences," and a similar privilege is likewise granted to such as are acquainted with a foreign language other than German.

THE ITALIANS IN EAST AFRICA.

Notwithstanding that General Baratieri has a very large military force—amounting altogether, it is alleged, to 30,000 or 40,000 men—at his disposal, there can be no doubt that the Italian troops in Africa are in a rather critical situation and that it is causing some anxiety to the Italian Government. The recent blockage of the Suez Canal delayed the passage of reinforcements for the Italian garrison in Africa. The forces at the disposal of Menelek are represented as being very large, but it is believed that there is great difficulty in obtaining supplies for them. The Italian force has a large number of medical officers and hospital *matériel* in Africa and the expense of the expedition must be very considerable.

THE DIRECTION OF THE ARMY MEDICAL SERVICE.

Mr. Brodrick's recent statement in the House as to the successor to Sir William Mackinnon will not have escaped our readers' attention. It is understood that the appointment of a new Director-General for the Army Medical Service is being very carefully considered by the War Office and military authorities at the present time. As Mr. Brodrick promised that the decision of the Secretary of State for War would be announced as soon as one was arrived at, it is probable that we may not have very long to wait before the name of the officer selected for the post is made known.

THE RESULTS OF THE ASHANTI EXPEDITION.

There is every reason to hope and believe that the late expedition to Kumasi will be followed by excellent results. Samory, the chief of a powerful and warlike Mahommedan tribe, has sent a letter to Mr. Maxwell, the Governor of the Gold Coast, renewing his expressions of fidelity to the British, and the Ashanti country is apparently quite peaceful and settled to the satisfaction of the tribes in its neighbourhood, who are the allies of the British, and probably, in some degree, on that account have been so long subjected to the raids of the Ashantis.

ARMY RECRUITS.

THE report of the Inspector-General of Recruiting has just been laid upon the table of the House of Commons. According to the statement made by Mr. Brodrick in the House the number of special enlistments in 1895 of recruits under the standard and still growing was 5780, which is a large decrease as compared with the previous year. The report of the Inspector-General shows, moreover, that the great majority of these specially enlisted men attained the full standard within their first year of service.

YELLOW FEVER ON AN IRONCLAD.

Telegraphic despatches received in Paris through Reuter's agency announce that 150 cases of yellow fever have occurred on board the Italian ironclad cruiser *Lombardia*

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at Rio de Janeiro, fifty of which have proved fatal. Assuming the reported outbreak of yellow fever to be true, it is, nevertheless, probable that the extent of the disease and the number of fatal cases that have occurred on board the *Lombardia* have been exaggerated, as we sincerely trust may prove to be the case.

A gratuity of five lakhs of rupees is, we are glad to say, being given to the troops engaged in the recent Chitral expedition. The unusually arduous character of their services and the discipline and spirit they displayed in the undertaking merit some special recognition. We sincerely trust that the admirable services of the native troops will not be forgotten.

Surgeon-Captain O'Callaghan, Adjutant of the Bearer Company which took part in the recent Ashanti expedition, was prostrated by fever when the troops evacuated Kumasi and was landed from the *Kabenda* at Las Palmas last Thursday suffering from dysentery, vomiting, and malarial cachexia. We are glad to learn that, though very weak, he is convalescing slowly.

Correspondence.

"Audi alteram partem."

"THE ADJUTANT-GENERAL AND THE ARMY MEDICAL SERVICES."

To the Editors of THE LANCET.

SIRS,—My attention has just been called to some comments in THE LANCET of Feb. 8th on the few remarks I made at Netley. The fault, no doubt, is due to my indifferent speaking, but as I particularly alluded to the fact that it was now recognised the medical department were entitled to their full share of the money voted for the field training of troops, and commended the advance the department had made in the field work of their bearer companies, it is hardly fair to impute to me the design of creating an impression that the duties of the department were merely pathological and surgical. As for the rest I fear that I am unrepentant. I do not admit a distinction between the expressions "doctor," as I used it, and "member of the Army Medical Staff."

I am, Sirs, yours faithfully,

Bruton-street, W., Feb. 21st, 1896. REDVERS BULLER.

"THE REGISTRATION OF MIDWIVES."

To the Editors of THE LANCET.

SIRS,—How far the "new woman" and the national tendencies of which that lady is the sign and symbol are to be held responsible for the strenuous efforts now being made to abrogate the Medical Acts, and to replace the time-honoured "Sairey Gamp" by a diplomatised and scientific type of midwife, it is difficult to say. The existence of such a tendency is, however, sufficiently demonstrated by the Midwives Registration Bills submitted to Parliament, to the General Medical Council, and to the branches of the British Medical Association, and while it is clearly the duty of the medical profession to safeguard and protect its legal rights and privileges, it may be a matter worthy of consideration whether there is at the bottom of the present midwifery agitation anything more substantial than a desire for the elevation and emancipation of the fair sex. The puerperal mortality, as shown by the Registrar-General's returns, which probably represent in this matter a good deal less than the truth, appears to be excessive. From 1871 to 1893 98,856 mothers died in England and Wales from puerperal fever and the accidents of childbirth, and in these days of antiseptic midwifery such a mortality must cause a good deal of searching of heart among state sanitarians. That a serious effort should be made to bring a little order out of the chaos at present prevailing on the midwifery question, and that the powers of the medical officer of health to deal with women engaged in nursing septic cases and with irregular and incompetent midwives should be largely increased, is, I think, a matter respecting which few members of our profession will be in doubt. With a view, therefore, of promoting these objects and also preserving intact the hard-earned legal privileges of our profession I have drawn up the following.

I am, Sirs, yours faithfully,

Salford, Feb. 24th, 1896. WILLIAM FRASER, D.S.Sc. Victoria.

Suggested Outline of an Act for the Prevention of Puerperal Fever.

1. The Act shall apply to every sanitary authority in England and Wales.
2. The definition of puerperal fever shall be any septic condition occurring during the parturient period (thirty-one days from birth) and connected therewith.
3. Every medical practitioner, on becoming aware that he is attending a case of puerperal fever, shall forthwith certify the fact to the medical officer of health for the district. The medical officer of health may call for a second certificate from the practitioner in attendance as to the exact nature and progress of the case, and for each certificate the practitioner shall receive from the sanitary authority the sum of 2s. 6d.
4. Any practitioner failing to give such a certificate shall be liable upon summary conviction to a fine not exceeding £20.
5. Every medical officer of health shall upon the Act coming into operation prepare and keep a register of all women in *bond-fide* practice as midwives in his district, the said *bond-fide* practice to be certified by not less than thirty householders whom she has attended or by three registered medical practitioners residing or practising therein.
6. After the expiration of twelve months from the date of the Act coming into operation no midwife shall be placed upon the register of the medical officer of health unless she possesses a certificate in midwifery sanctioned by the General Medical Council, and no medical practitioner shall, after the expiration of the said twelve months, take any pupil midwife (except a registered medical student) or give to any person any certificate or diploma purporting to be a qualification to practise midwifery without the sanction of the General Medical Council.
7. The Local Government Board shall issue to every medical officer of health directions (which must be in accordance with the terms of this Act and its Appendix) as to the sanitary and other conditions the midwife must observe while nursing a case of labour. In every case where there are complications (a list should be added as an appendix) and where there is any rise in temperature above 100° F., or any post partum shivering (except immediately after labour), or any abdominal pain (not after-pains), or any suppression or offensiveness of the lochia, a registered medical practitioner shall forthwith be sent for.
8. Every medical officer of health shall annually send to every midwife upon his register a legibly printed copy of such instructions, and should any such midwife fail to carry out in her practice these instructions, the medical officer of health shall have power to prohibit her from attending lying-in women for any period not exceeding six months. In rural districts the midwife shall have the right of appeal to the medical officer of health for the county. Contravention of this section shall render the midwife liable to the penalties of a "prohibited person." Section 10.
9. Every medical officer of health shall make full enquiry into all deaths arising from sepsis in parturient women in his district.
10. Every medical officer of health shall have power to prohibit any midwife (not a medical practitioner) or other person engaged in nursing a case of puerperal fever from attending lying-in women for any period not exceeding two months. Any person contravening this section shall be liable, upon summary conviction, to a fine not exceeding £20.
11. Every medical officer of health shall periodically inspect the premises in which the midwives upon his register reside, and should any midwife or other person habitually receive into their premises pregnant women, a register of the same, approved by the Local Government Board, shall be kept. The medical officer of health shall periodically inspect the said register and shall have power of entry into any premises of which the said midwife is the tenant or which may be used by a midwife or other person for the reception of pregnant women. This section shall not apply to public hospitals. Any person contravening this section shall be liable to the penalties of Section 10.
12. Every registered medical practitioner may report a midwife to the medical officer of health or to the examining board from which she obtained her certificate for any breach of the instructions issued by the medical officer of health, or of the conditions under which her certificate was granted, and the said board shall have power to either cancel the certificate or to prohibit the midwife from attending lying-in women for a definite period. For any contravention of this section the midwife shall be liable to the penalties attached to a "prohibited person." Section 10. This section shall not apply to medical practitioners.
13. Every registered midwife shall have the right to recover her charges for attendance as a midwifery nurse. This section shall not apply to registered medical practitioners.
14. Every medical officer of health shall have power to warn any unregistered person assuming the title of midwife or practising midwifery in his district to cease doing so if in his opinion such practice is dangerous to the lives of parturient women. Should the warning be disregarded the offender shall be liable to the penalties of Section 10.
15. Every medical practitioner upon being called to attend a case of still-birth shall forthwith certify the fact to the medical officer of health for the district, and shall receive for each such certificate the sum of 2s. 6d. from the sanitary authority. No person shall inter, or cause to be interred, or give authority for any uncertified stillborn child to be interred, without the written authority of the medical officer of health. Any person contravening this section shall be liable to a penalty not exceeding £10.
16. Every sanitary authority shall pay to the medical officer of health for the duties connected with this Act any sum of not less than £2 and not more than £50 per annum.

To the Editors of THE LANCET.

SIRS,—The pathetic cry on behalf of midwives by a number of ladies, wives of members of Parliament and others, in the London newspapers some months ago seems to be lost sight of just now in the discussion on midwives' registration.

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This "cry" was considered useful at that period and served well for the insertion of the thin edge of the wedge—namely, asking for registration for the benefit and the protection of these poor mothers. But now the "cry" has been dropped, and if midwives are registered they will be empowered to attend any of the mothers of England, rich or poor, for they will be recognised by law, and the confidence of the public will be increased as to their capabilities, and simply because of this legal stamp. If the above "cry" was to obtain for these poor people more reliable and skilled attendance in their hour of need, why stop at registering women "midwives" only? What about the large army of *men* who have taken out their full medical curriculum and have not been able to fully qualify and register according to law as medical practitioners? Why are they not considered? Because they have not had the Obstetrical Society of London to negotiate for them with the General Medical Council, as Dr. Champneys has told us was done for these women in his presidential address delivered a fortnight ago.

In reply to registering men they will say: "No; that would be a retrograde step, and would be opening a door for unqualified practice." We retort: "Is not registering uneducated women to practise midwifery a much greater retrograde step than it would be to register as 'midwives' those men who are all but qualified as medical men?" If registration is for the benefit of the "poor mothers of England," would this latter plan not give them more skilled aid than women can offer them? I shall be glad if registrationists will answer these questions. I fear these poor unqualified men of England have not gone the right way about it. If they could have "negotiated" with Dr. Champneys and the Obstetrical Society of London and obtained their "diploma" then they would have had powerful diplomatists at their back, who would have interceded for them with the General Medical Council, and they would now have been in possession of a document recognised by that august body. And yet, on the other hand, the executive committee of the General Medical Council resolved on Monday, Feb. 24th, 1895, that "the Council *cannot approve of any document* professing to qualify persons for any practice in medicine, surgery, or midwifery issued by any body or institution which is not a medical authority under the Medical Acts." Surely this looks very like a solution of continuity when they approved of the certificate that Dr. Champneys refers to of the Obstetrical Society of London in May last.

I wonder what those who have been punished at various times by the General Medical Council by being struck off the Register will think of those who had been "warned" "negotiating" with their judges? Does this not look as if there is one law for the high and another for the lowly who have no influential "negotiators"?

I am, Sirs, yours truly,
G. H. BROADBENT.

Ardwick-green, Manchester, Feb. 22nd, 1896.

"FUNCTIONAL APHONIA IN MAN; TREATMENT, ETC.; WITH SPECIAL REFERENCE TO SO-CALLED VARICOSE VEINS AT THE BASE OF THE TONGUE."

To the Editors of THE LANCET.

SIRS,—Having read the communication by Dr. Herbert Tilley and the correspondence which followed it, we consider it our duty to say that from personal experience we fully endorse the views set forth by Dr. Tilley and by Dr. Watson Williams.—We remain, Sirs, yours truly,

HENRY T. BUTLIN.
F. DE HAVILLAND HALL.
GREVILLE MACDONALD.
FELIX SEMON.
CHARTERS J. SYMONDS.

London, Feb. 24th, 1896.

To the Editors of THE LANCET.

SIRS,—It appears to me that Dr. Herbert Tilley has done good service to all concerned—whether specialists or patients—in bringing prominently forward the question of enlarged veins at the base of the tongue as a cause of throat symptoms. They may sometimes be so; negation is always difficult; and in science absolute negation implies the adoption of an unscientific attitude. At the same time my firm belief is that varicose lingual veins very rarely cause any trouble, because true varix in this situation is so extremely uncommon. On the other hand, if we are to cauterise every visible venous radicle which appears in front of the epiglottis we shall put our patients to much needless inconvenience and perhaps to some very unnecessary expense. These are my sentiments on this question which, judging by the somewhat heated language employed by some of your correspondents, must appear to them to be of considerable importance. I am, Sirs, yours faithfully,

Chester-street, Edinburgh, Feb. 25th, 1896. P. MCBRIDE.

To the Editors of THE LANCET.

SIRS,—I trust that you will allow me to endorse the remark of Dr. Watson Williams in your issue of the 22nd inst., to the effect that "so-called varicose veins may be more frequently observed in patients who do not complain of any throat trouble at all, and that their importance has been greatly exaggerated." This exaggeration, I think, is due in a great measure to an imperfect appreciation of the condition which constitutes true lingual varix, judging from the frequency in which I find the term applied to simple prominence of the pharyngo-glossal veins. Owing to their superficial position these vessels even in the healthy subject form a very prominent feature in the laryngeal mirror, and they are extremely susceptible to variations in venous tension. But simple prominence does not constitute varix. The term is only justified when the veins are greatly distended, tortuous, and marked with moniliform swellings not inaptly likened to black currants or strings of black beads. This is a condition justly associated with symptoms as well defined as those due to varix in other well-known situations and which generally coexist, in fact lingual varix is more often merely part of a general tendency to varix. Further, I also heartily support Dr. Watson Williams in his plea for "taking a broad-minded view of patients whose symptoms are localised in the throat," but I cannot subscribe to his somewhat cryptic allusion to "turbinal varix" as taking precedence over elongated uvula and so-called lingual varix as a mythical etiological factor. Although each of these states may be associated with its own peculiar local symptoms, their pathological association with a purely functional aphonia is not easy to define. For the term "turbinal varix" I am alone responsible, its selection being due to my interpretation of the morbid anatomy of a certain condition, the frequent cause of nasal stenosis, generally coexistent with varix elsewhere.[1] Since this disease constitutes one of the most severe and persistent forms of nasal obstruction, it is scarcely in accord with clinical experience to classify it with elongated uvula, otherwise the fundamental principles of rhinology will require reconstruction.

I am, Sirs, yours faithfully,
WYATT WINGRAVE,
Assistant Surgeon to the Central London Throat and Ear Hospital.

Devonshire-street, W., Feb. 25th, 1896.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me space to answer the questions and remarks of the correspondents with reference to the above-named subject in THE LANCET of Feb. 22nd? Referring to Dr. Holloway's letter I do not infer, but I assert, that no varicose veins at any time existed in the patient's tongue, for the simple reason that his usual medical attendant, who constantly uses the laryngoscope, examined his throat after hearing the specialist's opinion and found only the small ordinary veins at the base of the tongue present.

Mr. Jakins writes that he has never taught or heard that functional aphonia is due to varicose veins in the tongue. I do not think any reader of my cases will allow I inferred he did so; I simply cited a case of functional aphonia which was said to be due to varicose veins at the base of the tongue, was treated for the same by the galvano-cautery without relief, and was then advised to have turbinectomy performed. I believe Mr. Jakins will agree with me in the extravagance of the suggestion.

As regards Mr. Lennox Browne's letter, I will do my best to

[1] THE LANCET, June 15th, 1895.

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answer each point *seriatim*, but candidly acknowledge that I am unable to cope with him in the matter of ethics. 1. "Dr. Herbert Tilley names no names." In publishing the cases referred to I had no wish to individualise any institution or its officials. I wrote *pro bono publico*, feeling that I was doing my duty to my profession and especially to that branch of work to which I devote my time, and for whose good reputation I am solicitous. If, however, Mr. Lennox Browne wishes for the names of the consultants referred to and the patients I shall be perfectly willing to publish them (with their permission and that of the editors) in a coming number of THE LANCET. 2. I am acquainted with most of Mr. Browne's treatises on the subject and have carefully read the last-mentioned of them in the current number of the *Liverpool Medico-Chirurgical Journal*. I am amazed in reading there that he has, amongst 1547 private patients seen within three years, no less than 438 cases (less than 1 in 4) of lingual varix. As a result I am more than ever inclined to doubt the value of his observations. 3. Mr. Browne is apparently much perturbed because I only write of three cases. These are only samples. If he prefers a much larger number I can supply them and, if he so desires, the specialists consulted shall be named, with the permissions previously alluded to. 4. Finally, Mr. Browne is obviously incensed that one younger than himself should challenge his observations. May I be allowed to point out, although Mr. Browne may have been working at diseases of the throat longer than I have, that mere seniority is no proof of greater correctness in observation and interpretation, and I am deeply sorry that, with all his experience, he has not been able to find a better explanation of the cases than he has done.

I am, Sirs, yours truly,
HERBERT TILLEY, M.D. Lond.

Welbeck-street, W., Feb. 24th, 1896.

PROFESSIONAL SUBJECTS IN LAY PAPERS.

To the Editors of THE LANCET.

SIRS,—With reference to an article which appeared in the *Globe* of Feb. 18th I have received the enclosed letter from the honorary secretaries of the Medical Society of London which I have their permission to publish. I should feel obliged by your kindly inserting the same in your next issue.

I am, Sirs, your obedient servant,
HERBERT F. WATERHOUSE.

Wimpole-street, W., Feb. 25th, 1896.

[COPY.]

The Medical Society of London, 11, Chandos-street.
Cavendish-square, W., Feb. 24th, 1896.

DEAR MR. WATERHOUSE,—Your note of the 20th inst. was considered by the Council this evening. They regret that your case of bone grafting, shown to the Society on Feb. 10th, should have been commented upon in a non-professional paper, which unfortunately mentioned you also by name. The Council have ascertained that the paragraph appeared entirely without your knowledge and sympathise with you in your annoyance at the occurrence.

Yours truly,
AMAND ROUTH, G. R. TURNER, } Hon. Secs. to Medical Society.

SUBJECTIVE VISUAL SENSATIONS.

To the Editors of THE LANCET.

SIRS,—In accordance with a suggestion of Dr. Gowers, who delivered the Bowman Lecture of the Ophthalmological Society last year upon the Visual Phenomena connected with Epilepsy and Migraine, we are desired by the council of the above society to invite from members of the medical profession any observations they may be willing to record. It would seldom be possible to obtain accurate descriptions or drawings of such sensations from laymen, but it is felt that valuable information might be obtained if members of the profession who are themselves the subjects of migraine would put into writing detailed accounts of the visual symptoms from which they suffer in connexion with an attack. The value of these descriptions would be enhanced if they were accompanied (where possible) by drawings or diagrams of the appearances. It seems likely that the knowledge of the natural history of migraine and allied cerebral conditions might be greatly increased if a large number of such well-recorded experiences could be gathered together and classified. The nucleus of such a collection has been formed and presented to the society by Dr. Gowers, and the council will be very glad if any of your readers who can do so will help to enlarge it. We shall be glad to receive any communications that may be sent to us.

We are, Sirs, yours faithfully,
S. H. HABERSHON, 70, Brook-street, W.,
J. B. LAWFORD, 99, Harley-street, W.,
Honorary Secretaries of the Ophthalmological Society of the United Kingdom.

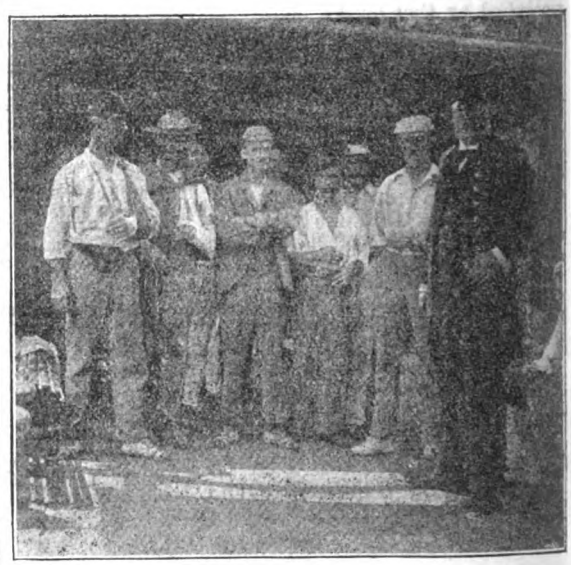
Feb. 24th, 1896.

WITH DR. JAMESON'S MEN ON BOARD THE "HARLECH CASTLE."

To the Editors of THE LANCET.

SIRS,—I have just returned from Natal to Plymouth as medical officer to the *Harlech Castle* and as medical officer to Dr. Jameson's men and officers on board the *Harlech Castle*. I thought it might interest you to have a short account of the sickness amongst them. I enclose a photograph of a few of the wounded. Dr. Jameson's column came on board at Natal on Jan. 24th—viz., Dr. Jameson, 294 men, 23 officers, and 10 women and children; Imperial escort, 18 men, and 2 officers. The men were naturally a very robust body, in age averaging from twenty-three to thirty-five years; but as I am told by the officers and men that after their celebrated march they were confined in Volksruit and Pretoria gaols, where the sanitary arrangements were very primitive and the stench horrible, Surgeon-Captain C. H. Hale brought on board with him 18 men—11 gunshot wounds, 5 cases of dysentery, and 2 cases of malarial fever—whom he placed under my charge. Three of the wounded were transferred three days later and sent to their homes at the Cape.

Illustration reproduced from a Photograph of Wounded taken on board the "Harlech Castle."



The numbers read from left to right in the illustration.

1. Bullet wound and compound fracture of the forearm.
2. Compound comminuted fracture of the forearm.
3. Bullet wound of side.
4. Bullet wound of side; paresis.
5. Bullet wound in the hand.
6. Bullet wound of arm and side.
7. Surgeon in charge.

The wounds all progressed very favourably, being dressed with antiseptic precautions; the cases of dysentery progressed favourably, as did also the malaria, but typhoid fever broke out on Jan 30th.

A trooper came to see me at about the end of the second week of the disease. I understand from his comrades that for some three months he had been in a weak state of health, but did not care to ask for medical attention. When he applied to me I immediately isolated him, disinfected his cabin, and took the usual precautions. I then asked Mr. E. C. F. Garraway, Mr. W. H. F. Farmer, and Surgeon-Captain Seton Hamilton, who had been with them in the field, if they would kindly meet me to see if anything further could be done, but in spite of all our efforts he sank and died at about the end of the third week. His case was complicated with

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meningitis, and from the first he had very active, long delirium. This case was followed by 6 other cases of typhoid fever, 25 mild cases of dysentery, and 28 cases of malarial fever. There was also an average of from twenty-five to thirty general minor ailments per diem, and, with the exception of six cases of typhoid fever, which were through their third week, one case of malaria, and one convalescent from typhoid fever, all were well when we arrived at Plymouth. These eight cases were transferred to the hospital ship at Plymouth. My general opinion of the men was that they were fine specimens of the nationality to which they belong and that the officers were a real good set of fellows.

I remain, Sirs, yours very truly,

FRED. G. LLOYD,

Surgeon to the *Harlech Castle*; Surgeon in Charge of Dr. Jameson's men from Natal to Plymouth.

Feb. 25th, 1896.

"THE PROPER TEMPERATURE FOR VAGINAL INJECTIONS."

To the Editors of THE LANCET.

SIRS,—With reference to the case reported in the *Leeds Evening Express*, upon which you commented in THE LANCET of Feb. 15th under the above heading, I anticipate thnt you will be willing to permit me, through your journal, to thank those members of my profession—nearly fifty in number—who have kindly defrayed my entire expenses in the matter. It would give me much pleasure were I at liberty to publish the names of those who have thus helped me, but you will see that the list which I now forward for your perusal includes most of the best known practitioners both in the centre and outlying districts of Leeds, and as to most of them I myself am entirely unknown I am led to regard their action as due to a feeling that I have been mulcted in damages contrary to the weight of evidence for the results of an accident (which none regret more than myself) which occurred in consequence of a correct line of treatment necessarily under the circumstances carried out hurriedly in a moment of supreme danger. I trust my unfortunate experience may be of service to others, but would regret were it to have the effect of deterring any medical man from doing his utmost to save a life in imminent danger for fear of consequences, however unpleasant to himself.

I am, Sirs, yours faithfully,

Armley, Feb. 19th, 1896. JAMES LAMONT.

"POINTS UNDER THE INFECTIOUS DISEASES (NOTIFICATION) ACT."

To the Editors of THE LANCET.

SIRS,—Dr. Leonard Cane's letter to, and his answer from, the Local Government Board opens up a very interesting question. Here (in Leicester) we are expected to notify each and every case of infectious disease which occurs in a house, but are only paid for the first one notified. The assistant secretary to the Local Government Board distinctly says that "the town council must pay the prescribed fee for each certificate, whether or not it relates to a person belonging to a family in which the presence of infectious disease has already been notified." It would be interesting to know why we Leicester practitioners are not thus paid. An elucidation of this question would be welcomed by all of us, including,

Yours faithfully,

Leicester, Feb. 22nd, 1896. W. L'HEUREUX BLENKARNE.

*** The Leicester system of compulsory notification is carried out, not under the general Act, but under the Leicester Corporation Act, 1879. That Act contains the following provision, Section 8 (5): "The corporation shall pay to every medical practitioner who shall, in pursuance of this section, duly make and give any such certificate or declaration a fee of 2*s*. 6*d*. for each such certificate or declaration, but only one such certificate need be given and only one such fee shall be payable within an interval of thirty days to the same medical practitioner for certificates given by him in respect of the same disease occurring in the same building." This system was studiously avoided in the general Act of 1889, and it has many obvious disadvantages. Thus, no trustworthy statistics of infectious sickness can be obtained and no rate of fatality to attacks can be ascertained.—ED. L.

To the Editors of THE LANCET.

SIRS,—Would you kindly inform me through the columns of THE LANCET if the urban district council are justified in the following actions? I notified fifty-five cases at the end of last year charging half a crown as usual, and which previously has always been paid; without any notice I am sent a cheque for £3 11*s*. 6*d*., with the information that in future the council will only pay a shilling for cases other than private. I am medical officer to a society for the miners employed by a company here, and which is only for their working men. Would you kindly inform me if this is a legal act and is what is meant by the Notification Act of 1889, which speaks of public bodies and institutions?

I am, Sirs, yours truly,

J. W. HUDSON, L.R.C.S., L.R.C.P. Edin., L.S.A.

Millom, Carnforth, Feb. 18th, 1896.

*** We are of opinion that the urban district council are altogether in error. The question has been discussed before and it has been decided that whilst "public body or institution" includes a public hospital or infirmary, that expression does not include private hospitals to which patients are admitted for payment, or a medical club, or a dispensary. In the case submitted the medical attendance on a miners' society is carried out by a private medical practitioner. We should advise, in the first instance, that a detailed statement of the circumstances be submitted to the Local Government Board and that their opinion be asked.—ED. L.

NUTROA FOOD.

To the Editors of THE LANCET.

SIRS,—My attention has been called to an advertisement in pamphlet form of a food called "Nutroa" which is stated to have the same composition as my "ideal diet for children." I wish to state (1) That the use of my name in these advertisements is without my sanction; (2) that the expression "ideal diet for children" has never been used by me in any of my writings; and (3) that the figures quoted are taken from my work on Chemical Physiology, which gives the average minimum diet (a very different thing from ideal diet) for persons of different ages. The figures selected by the advertisers are those for children between the ages of six and fifteen; the entirely different figures given on the same page for infants under the age of one year and a half are ignored. Nutroa food is advertised as a substitute for human milk, and therefore presumably intended for those under eighteen months of age. I may state in conclusion that since seeing the advertisement I have examined a sample of this food, and that I do not consider it in any sense a substitute for human milk.

I am, Sirs, yours faithfully,

King's College, Feb. 21st, 1896. W. D. HALLIBURTON.

"THE EAST LONDON WATER INQUIRY."

To the Editors of THE LANCET.

SIRS,—With reference to your annotation upon the subject of the report of the inspectors of the Local Government Board as to the service of the East London Waterworks Company, may I be allowed to point out the drawbacks of a branch service pipe as recommended by you? The inspectors very properly advocate the provision of properly designed domestic storage cisterns, and you maintain "that for the exclusive purpose of a drinking supply water direct from the main should, when possible, be drawn. This does not mean the abolition of cisterns, or of some means of domestic storage, for the service-pipe may be made to branch into two, the one to feed the cistern and the other to supply directly to the tap." If this arrangement be adopted the consumer would naturally utilise the direct tap with the result that the water in the cistern might be undisturbed for months. Should a breakdown of the constant service impel a resort to the water in the cistern the consumer would have at his disposal water dangerously stale and stagnant. If a cistern is properly designed, and in principle is but an enlargement of the

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service-pipe, there must be every reason to think it would be best to draw all water through that cistern rather than incur the risks I have pointed out which arise from a dual service-pipe. There are one or two cisterns on the market which perfectly embody that principle of the enlargement of the service-pipe, and it was upon this aspect of the water-supply that last autumn I presented a special report to the Poplar District Board of Works, a copy of which was forwarded to you at the time. I am, Sirs, yours truly,

RUSSELL MAIN TALBOT,
Feb. 21st, 1896. Medical Officer of Health, Bow.

*** Mr. Talbot has overlooked the fact that the cistern would be constantly emptied and refilled for the requirements of flushing purposes. Under the circumstances it is not clear how the water could become "dangerously stale and stagnant."—ED. L.

"PEROXIDE OF HYDROGEN."

To the Editors of THE LANCET.

SIRS,—In connexion with Mr. Page's caution concerning the "explosive tendencies" of solutions of peroxide of hydrogen [1] I would like to offer a caution from the clinical aspect. Some time since a boy was under my care with spinal caries and a large iliac abscess. Having opened and cleaned out the interior of the abscess cavity I proceeded to give it a washing with a solution of peroxide of hydrogen, introducing the nozzle of a syringe into the cavity for that purpose. On finishing the irrigation I found, greatly to my surprise, that the oxygen had been liberated with such energy that it had found its way up between the aponeurosis of the abdominal muscles and the superficial fascia, causing an enormous emphysema. A slough formed in due course, and when it became detached the aponeurosis was found denuded from over the false ribs (on the left side) down to Poupart's ligament, across the median line, and over to the left flank. We had a most anxious and apprehensive time with the child, but greatly to my relief he eventually recovered. I am, Sirs, yours faithfully,

EDMUND OWEN.

P.S.—I have quite done with peroxide of hydrogen.
Great Cumberland-place, W., Feb. 24th, 1896.

To the Editors of THE LANCET.

SIRS,—My attention has been directed to the letter of Mr. Herbert W. Page in THE LANCET of Feb. 22nd, and I shall be glad if you will allow me to point out that peroxide of hydrogen, as ordinarily manufactured, is always more or less prone to spontaneous decomposition into water and oxygen gas, and no doubt at times the decomposition is rapid and even attended with explosive violence.

It was from an intimate acquaintance with this subject that some years ago I was led to make a long practical inquiry into possible means of preserving that substance against chemical change, and in the result I discovered a means which was patented, and I may be allowed to add that the Sanitas Company have now for some years past been preserving peroxide of hydrogen by means of my process.

As thus made, peroxide of hydrogen is a perfectly safe article to handle, and it may be kept almost indefinitely without loss of strength. So little is it liable to change that it may now be shipped in wooden casks to America and Australia, a thing which is absolutely out of the question with peroxide of hydrogen as ordinarily prepared.

Peroxide of hydrogen is an exceedingly valuable liquid for many applications in surgical practice, apart from its industrial value as an oxidising agent, and when better known it will, I am sure, be used on an immensely larger scale than it is at present.

I am, Sirs, yours faithfully,
Feb. 25th, 1896. C. T. KINGZETT, F.I.C.

"PHARMACY AND PHARMACOLOGY."

To the Editors of THE LANCET.

SIRS,—Dr. Murrell's timely letter in THE LANCET of Feb. 22nd deserves to be cordially endorsed by everyone who wishes to see the practice of medicine and surgery put on as scientific a basis as possible. As Dr. Murrell says, pharmacology can be taught despite the Vivisection Acts; and even if students were only shown the most elementary experiments of the physiological action of medicinal bodies it would give them a grasp of the subject which few at the present day possess. After all, as students we only need be taught general principles, and upon this broad foundation we could build up our knowledge. It is only by adopting and making compulsory the attendance on lectures on pure pharmacology that examining boards can hope to get a class of men with a good fundamental knowledge of the laws of therapeutics. Perhaps no subject is so slurred over as the subject of therapeutics, and consequently on no subject of the whole student's course do we find so dense ignorance. Why, every dealer thinks he has a right to dictate to us combinations of drugs and chemicals, and we are flooded with mixtures, emulsions, pills, tabloids, and concoctions of all kinds, and we are asked to make our patients swallow them. Surely there must be some reason for it, and I ask, Is it not our ignorance of the subject of therapeutics? To remedy this state of things, then, let us see that the future medical man is educated in thorough knowledge of medicinal agents and he will then be able to suggest his own combinations. We often laugh at the laity in their support of quackery, but I often wonder if we are much better than they are.

I am, Sirs, yours faithfully,

GORDON SHARP, M.B. Edin.
Grafton-street, Leeds, Feb. 25th, 1896.

QUALIFICATIONS FOR HOSPITAL APPOINTMENTS.

To the Editors of THE LANCET.

SIRS,—THE LANCET of Feb. 15th has in it an advertisement on the part of the Great Northern Central Hospital whereby it is made known to all men that the post of obstetric physician to out-patients is open only to Members or Fellows of the Royal College of Physicians of London or of the Royal College of Physicians of Edinburgh. Now there is another College in this at present United Kingdom having the same privileges and Royal sanction as both of these and the same statutes and disciplinary regulations as the London College, though differing somewhat from the other in this latter respect. Is it possible that the Great Northern Central Hospital has not yet heard of the Royal College of Physicians of Ireland? And if it has I would ask, What fact within the knowledge of its managers makes the diplomates of that College unfit for the competition they invite? One must assume that the managers wish to do their best for the administration of the charity—that is, of the public money entrusted to their care—and to secure the best men for their honorary staff. Then it may be asked in the first place, Why restrict the applicants at all? The larger the choice the better the selection. Secondly, if they see a special virtue in the membership of a college, why do they omit the Irish College? Above all, why accept the Scottish and reject the Irish diploma? The last question, though it deals with the greatest absurdity, is perhaps the easiest to answer in a speculative way. The boycott implied in the advertisement has hitherto been exercised by English hospitals in favour of the London College and by Scottish institutions in favour of the Edinburgh College. In Ireland it has been obsolete these many years. Irish medicine and Irish charities have taken the lead in stigmatising the system of protection in the medical industry. The question of reciprocity with Ireland, therefore, does not arise. Are the novel tactics of the Great Northern Central Hospital inspired by the fallacious doctrine of fair trade? It may be so. It happens also that the staff of the hospital is so fortunate as to include a good proportion of gentlemen whose names bewray them as coming from beyond the Tweed. If it is their loyalty and patriotism that has secured the acknowledgment of their College it is much to their credit and they are to be congratulated. But why is the Irish College so pointedly excluded? Is it lest the master of the Rotunda should don the white robe? The Great Northern Central Hospital may dismiss the apprehension; but the geographical expansion of the predominant partner is singularly ill-timed when it operates by proclaiming to the public that the alumni of a College so closely connected with the greatest school of midwifery in the world are unfit for the post of assistant obstetrician at a London suburban hospital, and not only unfitted to hold the post, but unworthy to engage the attention of those who have the patronage of it. If

[1] THE LANCET, Feb. 22nd, 1896.

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the Irish Royal College of Physicians is alive to the interests of its members, if it can at last be made aware of the damaging effect upon its reputation produced by a class of advertisements of which this is the latest and most extreme development, an explanation will be asked and doubtless will be forthcoming. Meanwhile, the system of exclusion in its more usual form has been three times condemned by resolution of the British Medical Association and has been commented upon severely by Lord Sandhurst's Committee (Metropolitan Hospitals Enquiry); it has received the editorial censure of THE LANCET; and when an appeal has been made from certain hospital boards to the body of subscribers whom they are supposed to represent the matter has invariably been decided in accordance with the sense of justice and fairplay which belongs to the English people. Such appeals seem to be the only remedy, but they are vexatious and expensive, and it is much to be hoped that the governing bodies of English hospitals will see fit of their own accord to dispense with their necessity.

I am, Sirs, yours truly,

Wimpole-street, W. JAMES CAGNEY.

"THE NAUHEIM TREATMENT OF HEART DISEASE."

To the Editors of THE LANCET.

SIRS,—With reference to the article upon this subject which was published in THE LANCET of Feb. 15th, it appears that an important constituent in the mineral waters of Nauheim was not present in the baths given at the National Hospital for Diseases of the Heart and Paralysis. I refer to carbonic acid gas. It is possible that to this powerful agent more than to any other should be given the credit of the undoubtedly good results by which the baths of several well-known watering-places have acquired their reputation. The experiments of Grandeau, Roussin, Seguin, Currie, and others point to the positive conclusion that under the ordinary conditions of a mineral bath there is no appreciable absorption of the mineral constituents by healthy skin. With regard to the gases contained in a mineral water, it has been shown that the skin will more readily absorb these than the more solid ingredients; but it seems much more reasonable to believe that the great proportion of the effect produced is due not to absorption by the skin, but to direct inhalation into the lungs. The patient lies submerged to the chin, with mouth and nose on a level with the surface of the water and in a stratum of the gas which is continually being given off. The amount of carbonic acid gas given off in twenty-four hours by the Frederich William Sprudell at Nauheim is reckoned at 48,000 cubic feet. The amount given off at the sources of Kissingen, of Vichy, and of Schwalbach is equally considerable. At each of these and similar sources a lighted taper approached towards the surface of the water is immediately extinguished.

At all baths where carbonic acid gas is present in any quantity it has been found necessary *to regulate very carefully* (1) *the duration of the immersion*, (2) *the temperature, and* (3) *the amount of agitation of the water*. An extension of five or even three minutes in the period of immersion will cause a markedly different result, as will also a comparatively small alteration in the temperature or in the amount of agitation of the water. These last two conditions directly influence the liberation of the gas, and it seems more reasonable to attribute the difference in result produced by prolonging the immersion for so short a period as three or five minutes to direct inhalation of the gas into the lungs than to its absorption by the skin, which is known to take place only slowly. As regards the effect produced upon the heart by baths such as those of Kissingen, of Nauheim, of Schwalbach, of Vichy, or of Kniebis, it is no uncommon thing for the pulse-rate of a healthy individual to be reduced from the normal to 50 or even 40 within half-an-hour of taking a bath. From this depressed condition it will gradually rise in the course of a few hours to a frequency above its usual rate. *I believe that the beneficial result from this class of bath is due almost entirely to the action of the carbonic acid gas given off and to the reaction it induces.*

In many cases a beneficial result is not obtained for some time after the course of baths have been taken, the result being dependant upon the after cure in a well oxygenated atmosphere in order that the reaction induced may be as great as can be endured. And upon this point I believe that in some cases the reaction may be induced to too great an extent and with disastrous consequences. I have in my immediate knowledge the similar cases of two persons who, after a course at Nauheim, went for the after cure to what was probably too high an altitude, with the result that in each case pericarditis quickly supervened and terminated fatally—an unfortunate issue which I attribute to too great a reaction having been induced.

I am, Sirs, yours faithfully,

Curzon-street, Mayfair, Feb. 15th, 1896. RALPH BROWNE.

"TO THE DEGRADATION OF THE SPECTATOR."

To the Editors of THE LANCET.

SIRS,—Permit me to ask (in justice to the universally acknowledged good and proper conduct of the Royal Aquarium) for a modification of your expression of disapproval *re* the trance. I hope you do not, in your issue of the 15th inst., use the term "disgusting" in opprobrium. As a matter of fact, there is nothing in any way disgusting or unseemly in the exhibition. Probably your remarks are more especially intended to suggest that such exhibitions are better suited to medical institutions, and in that view I cordially agree.—I am, Sirs, faithfully yours,

JOSIAH RITCHIE,
Chairman and Managing Director.

Royal Aquarium and Summer and Winter Garden Society, Limited, Feb. 21st, 1896.

*** We print Mr. Ritchie's letter which comments upon an annotation entitled "To the Degradation of the Spectator," which appeared in our issue of Feb. 15th. We are happy to admit that the Royal Aquarium is conducted with a propriety as conspicuous as are the length and variety of its programme. We are happy also to see that Mr. Ritchie agrees with us in thinking that such an exhibition as the recent one of hypnotic trance could have been given in more suitable places than within a building devoted to popular entertainments; but surely, as managing director, he could have remedied this in the past and can do so in the future.—ED. L.

"UNSUCCESSFUL PROSECUTIONS UNDER THE MEDICAL ACTS."

To the Editors of THE LANCET.

SIRS,—With reference to your comments, which appear in your issue of the 22nd inst. under the above heading, upon the recent decisions of the Cardiff Stipendiary in the prosecutions of "Bridgwater and Frikart" instituted by our clients the Medical Defence Union we may inform you, for the information of your readers, that the Union are taking steps with the view of obtaining the decision of the High Court in each case. Application has already been made to the Stipendiary to state a special case in reference to each prosecution, but he has declined to do so, and further action in connexion with the position will be taken by us forthwith.

We are, Sirs, yours obediently,

35, King-street, Cheapside, E.C., Feb. 27th, 1896. HEMPSONS.

"A QUACK DOCTOR WITH 'ONE OR TWO ASSISTANTS.'"

To the Editors of THE LANCET.

SIRS,—The jury have returned a verdict in the case upon which you commented under this title last week that deceased died from natural causes, but that they considered that the conduct of Townson, if the law could not reach him, called for severe censure. We in Liverpool are anxious to see if the local authorities will institute a prosecution here. In Liverpool there appears to be great confusion in the minds of the legal and of the police authorities as to the person upon whom lies the onus of prosecution in these cases. It clearly cannot be the duty of the medical profession to do so. For the sake of argument, were this duty laid upon them, would not the public, who in this country almost demand quackery, look with suspicion on their action and attribute their motives to professional jealousy? Clearly the time has

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arrived when the law should be so altered that it would become as impossible for a quack to practise medicine as for a quasi-solicitor to practise law. Our unfortunate profession seems to be the prey for unsuccessful candidates in other walks of life, if we are to judge by the irony of expression of the man Townson, who calmly informed the deputy coroner that when all his previous occupations had failed "he had to return to the medical profession." Need anything further be added as an argument in favour of some legislation against quackery when we have an admission like this made in open court by a man who for eleven or twelve years had been duping the public and successfully carrying on his business with the help of two assistants, and this at a time when so many competent and duly qualified men are struggling for a bare existence? The situation is emphasised by the facts that about two years ago one of the advertising fraternity here was convicted and sentenced to penal servitude, and for the "infamous conduct" of being associated with and "covering" him a duly qualified and registered surgeon was summoned by the General Medical Council to appear before them and his name was erased from the Register. This man continues to practise in Liverpool, his name appearing in the local directory as "Surgeon" in one part and "M.D." in another.

I am, Sirs, yours faithfully,

Feb. 22nd, 1896. LIVERPUDLIAN.

"EXAMINERS AND EXAMINEES."

To the Editors of THE LANCET.

SIRS,—I was up for the Conjoint Board Examination in Midwifery and Surgery last time and I had the opportunity of mixing with and hearing the remarks of all classes of candidates. I also had practical experience of the manner of the examiners in midwifery and surgery, and in both instances I am glad to say I found myself treated with courtesy—in fact, I may say, as a gentleman. All the other candidates I spoke to made no complaint, and many in medicine also seemed quite satisfied; but there were several of the latter, I am sorry to say, who bitterly complained of the "manner" of the examiners in medicine. None of the candidates whom I saw complained of the difficulty of the questions asked, but they certainly complained of the manner in which they were asked and of the way the replies were received. Most of them were successful, so they were not annoyed at not having passed. Now, Sirs, it seems to me, from what I have seen and heard, that the examination in medicine has arrived at a high pitch of notoriety for the manner of the examiners, not especially to those who fail, but to those also whom they allow to pass. What I ask as a candidate is not that the questions shall be easy, but I do ask that they will be asked as by one gentleman to another. The surgeons and gynæcologists seem to be able to do this, why cannot the physicians also? The candidate well knows that for "cheek" he can be referred for twelve months; he is, therefore, securely muzzled. Surely, Sirs, under these circumstances we have the right to demand to be treated with courtesy and not as—my powers of analogy almost fail me, but shall I say—as a pickpocket before a metropolitan magistrate.

I am, Sirs, yours faithfully,

Feb. 16th, 1896. CANDIDATE FOR APRIL EXAMINATION.

MEDICAL AID ASSOCIATIONS AND PROFESSIONAL UNITY.

To the Editors of THE LANCET.

SIRS,—I held an appointment as medical officer to a friendly society's medical association. Owing to the late action of my College (K.Q.C.P. [now R.C.P.] I.), which now exacts from all who seek its diploma a solemn undertaking that they will neither hold office in nor associate themselves professionally with anyone holding office in any medical aid association, some months ago I gave up my appointment owing to this, and also because the society had considerably increased its membership and admitted persons to whom I strongly objected owing to the social and financial positions they held. Both at the committee meetings and at the public lodge and court dinners I always mentioned the injustice of admitting such persons at all, and especially at club rates or a fraction over. Now what has happened? A M.R.C.S. Eng. has stepped into my place, and this, too, in face of a somewhat similar opinion expressed by the English Royal College of Surgeons! Of what use was it for me to give up an appointment worth about £220 a year, with free house, cab hire, all drugs found, and a person to dispense medicines? Surely if we of the Irish College of Physicians are thus called out it is unjust and unfair for Englishmen, who voice their grievances so loud, to step into our places the next moment. I do not regret the step I have taken to uphold to views of my College and the dignity of the profession, but it seems a little hard to have to begin the world again when my place is immediately filled up by a M.R.C.S. Eng.

I am, Sirs, yours faithfully,

Feb. 24th, 1896. L.K.Q.C.P.I.

THE HUDDERSFIELD POISONING CASE.

To the Editors of THE LANCET.

SIRS,—I was sorry not to see any notice in THE LANCET of a very important point developed in this case. Justice Grantham deprecated the practice of passing articles for chemical examination through so many hands. Justice Hawkins made a similar complaint in the Lamson case. In the Flannigan and Higgins case a most important piece of evidence was nearly excluded because a police official was lax in preserving the identity of an important article. The moral is, obviously let the medical witness himself secure and lock up everything which ought to be sent to the analyst. This will save time, trouble, expense, and prevent a possible miscarriage of justice.—I am, Sirs, yours faithfully,

Feb. 26th, 1896. A JURISPRUDENT.

*** Our correspondent will find that we have dealt with the case in another column.—ED. L.

THE ASHANTI EXPEDITION.

(FROM OUR SPECIAL WAR CORRESPONDENT.)

MY last letter was sent off from Prahsu, which place I left just after daylight on Jan. 3rd, and crossing over the river by the recently erected pontoon bridge, of which I sent you a rough sketch,[1] we plunged once more into the African forest, and after a somewhat cooler journey than heretofore reached another rest camp, Asierman, at 2 P.M. About five miles out we halted at a native village for breakfast, and whilst seated partaking of the meal under the shade of a tree in the centre of the road, surrounded by wondering negroes, my eye suddenly caught sight of a young coloured child at the door of one of the huts a few yards from me looking very ill with a cloth wrapped round the head, whilst the face, neck, arms, and legs were covered with a pitted, pustular eruption closely resembling small-pox. Be it so or not, I considered it desirable to move on with as little delay as possible, and calling my head man intimated to him that he was to summon the bearers, pack up the belongings, and start afresh, determining to telegraph the fact back to the Principal Medical Officer at headquarters as soon as I conveniently could, so that any halting of the men might be avoided at this place on their way up from Prahsu to the front. The opportunity for doing so was afforded me at Asierman, and I am glad to say, from what I have since learnt, that stringent orders were issued that halting at the place indicated was strictly forbidden. We had not long been at Asierman before an officer who had come on behind me arrived from Prahsu with the intelligence that Major Bowden Powell, Major Gordon, and Lieutenant Pritchard, ahead with the native levies, were all down with an attack of fever and that some other officers were being sent up to relieve them with all despatch. At Asierman there is a fairly clear running stream of water which stood the chemical tests well, and the position of the camp had been rightly chosen, being on an elevated position and free from swampy surroundings. As the stream required protection a good Haussa guard had been kept near the crossing to prevent natives fouling it by bathing and washing their clothes in it, as they are in the habit of doing if not prevented by these aforesaid precautions. Heavy, dense, cold fogs were experienced in this place during the early hours of the morning. Leaving Asierman with my carriers and some sappers we pushed on and reached Akusirem on the 4th before evening had closed in. Before reaching—in fact, close up to—this place some very

[1] THE LANCET, Feb. 8th, 1896.

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ugly, dark, unhealthy looking swamps were noticed, and on arrival we found the locality chosen for this rest camp anything but what it should be, being low and decidedly objectionable from a sanitary point of view, while I was not at all surprised to learn that two officers were here down with malarial fever. My attention was immediately called to the water-supply, which I found to be in strict accord with the other undesirable surroundings. To be brief, it was found to be both a snare and a delusion, being a mere water-hole of surface drainage from ground around, on which were deposits of an unmentionable character. The water turned litmus paper quite red and produced deposits from solution of nitrate of silver, acetate of lead, and Nessler's solution, besides taking the colouring matter from permanganate of potash in a few minutes—in fact, it was loaded with animal and vegetable matter to such an extent that I could only tell Major Sinclair that my opinion was that it was quite unfit, even after boiling, for human consumption. The officer commanding the advance instantly wired my opinion back to Prahsu, with the result that any stoppage for a night at this camp was countermanded, and as a visit by the Principal Medical Officer since has in every way verified my opinion the camp has been abandoned and given up altogether for the future. Surgeon-Colonel Taylor also noticed, as I had previously done, that all the banana and plantain trees had been cut down round the camp in this place; their foliage and stump ends lay scattered about and were rotting in the sun, producing quite a stench and adding greatly to the malarious influence of this dismal, wretched spot. The two officers sick here with remittent fever were about to be sent back to Prahsu; but the Principal Medical Officer, considering the matter over in his mind and knowing we ought in a day or two to be at a much higher elevation with a freer and better air supply at the Monsi Hills, determined to bring the ailing ones on, with what result will be presently seen. At 10 A.M. on the 6th Sir Francis Scott and staff arrived, and after learning from the lips of the Principal Medical Officer the true state of affairs determined to push on with all haste, and within two hours of the Commander-in-Chief reaching Akusirem the whole force had wisely quitted this pest hole and were well on their road to another rest camp, evidently better chosen as regards site than this one had been. On Jan. 7th, at 10 A.M., I breakfasted with the headquarter staff by the invitation of Colonel Bellfield. At 1 P.M. we passed up the native village of Sheramasso and at 2.30 P.M. came to an anchor once more at the newly erected camp of Bafra Edru. This place is approached by a gradual ascent, and the road to the hills lies about N.W. and S.E. Just beyond the camp is an excellent free-running stream of pure, good water, which will prove a great boon to some of the long-suffering, thirsty souls who have outlived an experience of Akusirem. I place this spot about 500 feet above sea level. The barometrical record pointed to the changes in climate may be experienced by an army corps bound from the coast to Kumasi and proves that a high temperature can be easily borne without any very serious results, but that a comparatively low one with great moisture instantly has an effect on the health of those employed in these West African campaigns. For instance, at Akusirem the temperature one day did not exceed 78°F., with a wet bulb nearly equal to it, and yet how desperately oppressive it felt. A languor was experienced that words fail to describe. Whereas at the place I am now dictating this letter from, on the north side of the Monsi Hills, some 600 feet above sea level, where the influence of the N.N.E. wind is felt, with a temperature standing at 90° in the shade, small inconvenience is felt. The effect of the change is simply marvellous. Why? Simply because the moisture point is so low and the increased heat can be borne with impunity. The Monsi Hill was crossed by my party at 8 A.M. yesterday, the 9th; its height I place at 1122 feet above sea level. From its summit nothing can be seen in consequence of the forest of trees that encircle it; if these trees could be cleared away no doubt an excellent view of the surrounding country could be obtained. Descending by an excellent but rather circuitous cut road a small waterfall was passed half-way down, and the new camp at Kwissa reached at 10 A.M., 600 feet above sea level.

For the first time the headquarter staff are in advance of my small party, for they reached Kwissa an hour or so before I came in, having left the composite battalion behind at the last place for them to follow on the following day. This specially-selected corps has so far proved a decided success. They appear well and have marched well, and have lost only two of their number so far, whereas the West Yorkshire had early in the march to send back some sixty-five of their comrades as unfit to proceed further towards Kumasi. The Haussas being ahead, I am unable to say what their casualties as far as health is concerned have been, but cannot speak too favourably of the manner in which the carriers have so far performed their share of the work, for out of, say, some 1200 carriers organised and commanded by Captain D. A. Donovan, Civil Police Force, not a man is reported as unfit at any rate up to this date. These fine fellows have now marched over 100 miles and carried an average weight of 45 lb. on their heads without turning a hair, so to speak, and have been exceedingly willing and obedient into the bargain.

Kwissa, the advanced camp at the north side of the Monsi Hills, about forty miles from Kumasi.
Jan. 10th, 1896.

We left Kwissa on Jan. 11th at 5 A.M. and joined the Special Service Batallion on march towards Kumasi. On starting I felt quite fit and had gone on foot with the men about six miles when suddenly I was seized with a fit of shivering and general prostration and had to immediately summon my hammock bearers. I got with difficulty into my cot. The officer in command instantly passed me through the troops, and had me quickly sent on to Essenquenta where Surgeon-Colonel Taylor was in medical charge. He pronounced my case one of fever and adopted measures accordingly. I must reserve a description of my personal experiences of this West African plague as I am feeling very debilitated after a whole week's detention on the sick list, and having been sent back to the *Coromandel* am here at Mansu to-day, Jan. 18th, much better, and so far recovered that I can return to my work in a day or two. Being within twenty miles of Kumasi it certainly seemed hard luck to be knocked down within a stone's-throw of our destination; but to-day (the 19th), as I expected when sent back a week ago, we learn by telegram from the front that the city of King Prempeh has been entered (Jan. 17th) without a shot being fired, and our campaign is so far at an end. Scarcely an officer who returns will be able to record the fact that he has escaped the fever, but happily most get over an attack in from about five to seven days.

Mansu, thirty-five miles from Cape Coast Castle,
Sunday, Jan. 19th, 1896.

THE HOSPITAL SHIP "COROMANDEL."

The medical transport *Coromandel* from Ashanti arrived at Plymouth on Feb. 25th with Sir Francis Scott, Prince Victor Christian, and a number of sick on board. It was proposed to land some of the troops at Plymouth, but as some difficulty arose about *pratique* the *Coromandel* proceeded direct to London, where the passengers were landed on the 26th inst. It transpired that she had already disembarked some 31 officers and men at Gibraltar for hospital treatment, all suffering from remittent fever, it being considered undesirable to bring these cases too suddenly into a colder climate; but she had on board at the time of her reaching the docks some 30 or more cases still under treatment for remittent fever, 13 of these being more serious than the rest. Prior to being sent on shore these poor fellows were visited in the hospital below deck by the Commander-in-Chief, with his staff. Lord Wolseley, approaching the cots, addressed sympathetic words to each sufferer in succession, inquiring carefully about their homes, friends, and belongings, giving each pale-faced malarial-stricken "Tommy" much encouragement by his earnest and friendly words. Several ambulances from Woolwich were drawn up in the sheds ready to convey the sick to their respective sick quarters. It has been reported to us that *pratique* was refused the *Coromandel* at Portsmouth the day before yesterday on somewhat startling grounds. We are informed that on arrival at that port the *Coromandel* was visited, *not by a medical officer, but by a Customs official*, who, on asking "if they had any sick on board," was immediately answered "Yes, we have several cases of remittent fever and ague." "Then," replied the Customs officer, "I must refuse you *pratique;* if there had been only *ague* I could have passed the ship, but I cannot with *intermittent fever cases on board.*" The source of our information leaves no room to doubt that this curious interview actually took place, otherwise we should have hesitated to give it credence. Where was the medical officer of the port?

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MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Manchester Hospital for Consumption and Diseases of the Throat and Chest.

THE annual meeting was held on the 19th inst. in the Town-hall, the Lord Mayor presiding. The in-patients are received in the hospital at Bowdon, where during last year 226 were treated, as against 256 in 1894 and 277 in 1893. During the year four wards had to be closed some time for necessary cleansing and decoration, which would account for the smaller number of in-patients, but it is feared that want of funds may reduce the number in the future. The report says: "The demands upon the resources of the hospital continue, unfortunately, to exceed the yearly receipts, and the board of management feel that it would be a public calamity if this institution should, through lack of public support, have to close any of its beds against the too numerous applicants for admission." The income from all sources during the year was £3195 5*s.* 8*d.*, and the expenditure £3228 10*s.* 10*d.*, which increased the deficit due to the bank to £1130 11*s.* The conclusion of the report is not without pathos: "With our present income of barely £3200 it is impossible to grant admission to our Bowdon Hospital to more than a small proportion of those who apply, and even to the fortunate few we can only offer a stay of a few weeks in bospital, after which, in almost every case, there is no alternative but to return at once to the old work and to the old unhealthy surroundings; in fact, to just those conditions which are, in the main, the predisposing causes of their malady. With ampler funds at our disposal much might be done in the way of sending to the country and the seaside those whose cases seem to promise a good hope of recovery, and this without adding in any way to our present hospital accommodation." In the report of the medical board attention is called to the prevalence of lung diseases among those who work at trades not necessarily unhealthy, but which become so "by reason of their sedentariness and the unwholesome conditions under which they are carried on." It goes on to show how helpless the workers themselves are as to the improvement of these conditions and that the employers must be looked to if the workrooms are to be rendered "more healthy—or rather, less unhealthy." But, on the other hand, the carelessness, the ignorance, and the prejudices of the workers contribute materially to their own unhealthiness. An effort is made by the authorities of the hospital to spread information about phthisis and its causes, by giving to every patient coming to the out-patient department a leaflet pointing out the need for fresh air and cleanliness, and indicating the precautions to be used as regards sputa, &c. The urgent appeal made for help would surely be generously responded to if, in addition to the personal sufferings of the victims of phthisis, the misery caused by the long-continued illness of the mother or the father of a poor working family could only be realised.

The "Hernia Specialist" again.

In THE LANCET of Dec. 21st last it was stated that a quack named Sherman was sued in the Manchester county court and judgment given against him for £22 and costs for defrauding a man whose hernia he had promised to cure. Another action was brought against him in the county court here on the 19th inst. to recover £22 1*s.* from Samuel John Sherman of 64, Chancery-lane, London. He has now, therefore, sought a wider field than Manchester can offer; but even here he made himself known over a wide area, for in April, 1894, E. Jones, a farm labourer, of Llandegla, near Mold, was attracted by an advertisement in a North Wales paper in which Sherman said he could cure ruptures without operation. Jones came to Manchester and paid Sherman a guinea. "Then Sherman examined him and undertook to cure him for 20 guineas, which the plaintiff paid. After a while the plaintiff lost faith in the defendant and in the virtue of his 'scientific and unique' appliance and the 'curative compound known exclusively to the defendant' and desired to have his money back." Sherman told the plaintiff, to whom he gave "a truss and a bottle of compound," which did no good, that after treatment he would be able "to pitch hay properly." The credulity of these victims is wonderful, or they would not be taken in by "pictures of men who had suffered from rupture" and had been cured. Mr. Whitehead and Mr. Collier were witnesses for the plaintiff, as in the former case. Judgment was given for the plaintiff for the full amount claimed—£22 1*s.*—with costs, including costs of two medical witnesses, and it was directed that there should be immediate execution. Another action was brought against him on the 20th inst. The plaintiff was a farmer from Eastham. The case was very similar to the last, and judgment was given against Sherman for £23 2*s.*, with immediate execution to follow. And on Saturday last at the Manchester assizes an action was brought against him by a lodging-house keeper of Rochdale. In this case Sherman, after getting the preliminary guinea for examination, asked for a fee of a 100 guineas, but finally took 80 guineas, in return for which he gave a truss which was not properly constructed and from which the plaintiff suffered severely, and a bottle of lotion. The jury gave a verdict for the plaintiff for 85 guineas. Quackery, no doubt, pays well, but these repeated actions against him must annoy Mr. Sherman, and may incline him to return to his former business in the States. In the *Manchester City News* of Saturday it is interesting to see a paragraph relating one of these cases tried in the county court, and the following advertisement immediately below:—"Rupture.—Unparalleled success in the treatment of rupture by S. J. Sherman, Hernia Specialist, 64, Chancery-lane, London. Write for his new book of full information, 7½*d.* post free." Until recently he gave an address in King-street, Manchester.

Employer's Liability Case.

This case, decided on the 19th inst., is somewhat interesting, as the question was as to whether the plaintiff's condition was the result of injury or of his previous habits. The plaintiff (Wrigley), a joiner, was working for the defendant (Joy), a contractor, on Oct. 12th, 1894. A beam was being hoisted, and Wrigley was guiding it from below, when the rope broke and the beam caught him on the nose, injuring him somewhat seriously. His face was dressed at the Manchester Infirmary, and he had since been under the care of his own medical man. He told the court that in consequence of the shock he could not now work at any distance from the ground. Mr. H. R. Strange, called for the plaintiff, said he did not think Wrigley would be able to do any high scaffolding work in the future, but admitted that his symptoms "were consistent with those caused by drink, though they had been accelerated and exaggerated by injury." Dr. Baynes and Dr. Thomas Harris said that so far as the medical symptoms were concerned the accident was not responsible, and the former added that when he saw the plaintiff it was almost impossible for anyone to say that he had received any injury. Judge Parry said he was convinced that the plaintiff suffered serious temporary inconvenience from the accident, but the symptoms he now showed were due rather to his mode of living in the past than to the accident. But he added "there had been carelessness on the part of the defendant's foreman, and he would award the plaintiff £15 damages and costs." This seems "a righteous judgment," the sum awarded being no doubt less than it would have been if he had not been unhappily a man "with a past."

Manchester Clinical Hospital for Women and Children.

The Lord Bishop of Manchester took the chair at the annual meeting of the subscribers to the above institution, which was held at the hospital on Friday last. 10,654 new cases had been treated in the out-patient department last year, and 900 in-patients had been received. It is a pleasant novelty to learn that "the annual subscriptions show a slight increase as compared with the previous years." There is still, however, "considerable deficiency shown in the accounts, the actual loss on the year being £598, and the balance owing to the treasurer on Dec. 31st was £701 15*s.*" The Bishop spoke eloquently and sensibly in his appeal for increased support. Mr. Edward Holt has given £1000 to the hospital, to be invested, "and the interest applied to providing better comforts for convalescents." His lordship hoped that this "brilliant example" might be followed by others. Mr. Morton Philips said that the finances were not so bad as would at first appear, as the expenses had been extraordinary; these had been caused chiefly in order to provide much needed laundry conveniences.

More Deaths from Carbolic Acid.

On the 17th inst. a labourer, Robert Fielding, of Bolton, before leaving his home to go to work, "picked up what he thought was a bottle of hop bitters and drank part of the contents," which proved to be carbolic acid. He roused his

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wife and then ran to the nearest medical man. "He fell exhausted in the surgery, and died soon afterwards, after acute suffering." This was what is called an accident. On the 21st an inquiry was held as to the cause of death of Annie Walker, aged seventeen, of Hulme, Manchester who, being "troubled in mind," poisoned herself with carbolic acid. The deputy coroner said it was a poison too easily obtained, and he was strongly of opinion that there should be some restriction as to its sale. "Hardly a week passed without a case of carbolic poisoning being dealt with at that court." In yesterday's *Manchester Courier* a case was reported from Wednesbury of the suicide of a married woman, who obtained the acid from a neighbour "ostensibly for the purpose of cleansing a drain." She died, it is said, in ten minutes, in terrible agony. The death-roll is rapidly increasing.

Feb. 25th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal Edinburgh Asylum for the Insane.

THE annual meeting of the Corporation of the Royal Edinburgh Asylum for the Insane was held on Feb. 23rd in the City Chambers, Edinburgh, Lord Provost McDonald being in the chair. The annual report of the managers, read by the treasurer of the asylum, Mr. D. Scott-Moncrieff, W.S., stated that the past year had been a most eventful one in the history of the asylum. The opening of the new asylum at Craig House had taken place in the autumn of 1894, but it was not until March, 1895, that the important work of transferring the patients from the old East House Asylum to new Craig House was commenced. The transfer was completed in May, 1895, and the managers were glad to report that it had been effected without a single misadventure. The new asylum fulfilled in all respects the expectations that had been formed of it, and its advantages had been fully appreciated by the medical profession and the general public, applications for admission for new patients having amounted to 80 during the year, or twice the annual average. The daily average number of patients paying high rates of board had increased by 15 since the transfer to the new building, and this increase had been progressive ever since. The boards received for high-class patients during the year amounted to £20,887, against £18,587 for the year 1894, being an increase of £2299. The ordinary revenue for the past year from all sources was £47,634 15*s.* 10*d.*, while the ordinary expenditure, which included an instalment of £1526 towards liquidation of the West House debt and the interest due on Craig House debt, was £47,872 4*s.* 3*d.*, leaving a deficit of £237 8*s.* 5*d.* for the year. The managers pointed out that had they throughout the whole year been in receipt of boards such as were payable at its close there would have been a surplus exceeding the amount of deficit on Craig House, a result which they had confidence in expecting for the current year. The board charged for intermediate patients was £42, and the cost of their maintenance during the year £39 12*s.* 3½*d.* The board charged for patients supported by the parochial authorities was £30, while the cost of their maintenance was £29 14*s.* 0¾*d.* The property on which the old East House was situated had been sold in lots for prices amounting in all to £14,850. The adoption of the report was moved by the Lord Provost and seconded by Sir John Cowan of Beeslack. Mr. James Howden, C.A., was appointed to succeed on the board of management Mr. J. R. Findlay, who retired by rotation. Mr. Richard Clark, chairman of the city parish council, was appointed to represent that body on the board. In the absence of Dr. Clouston, Dr. Middlemass read the report of the physician-superintendent. It stated that the total number of patients treated during the year had been 1292 and the average number of patients resident 882, of whom 438 were men and 444 women. The discharges were 302, of whom 157 were men and 145 women, while the admissions were 410, of whom 188 were men and 222 women. There had died during the year 96 patients, of whom 54 were men and 42 women. It was a striking thing that 80 of the admissions had been into the new Craig House, whereas the average yearly admissions into the now abandoned East House for the five years previously had been only 42·6. Already the number of patients in Craig House was mounting up so rapidly that in another year, with the same rate of admission, its capacity would be almost reached. The number of recoveries in Craig House was greater than had ever been the case in the East House. Twelve of the patients admitted to Craig House came there voluntarily, a larger number of voluntary patients than they had ever had before. The causes of mental disease among the patients presented no very striking or novel features. Out of 89 cases in which the brain and mind had been upset by mental causes 80 per cent. were from "mental worry," "domestic troubles," "sorrow," "shock," "love affairs," "adverse circumstances," "too solitary life," "religious excitement," while only 17 were from "overwork," showing that it was not work, but worry, that killed. Of the physical causes intemperance headed the list with 87 victims. There were 15 cases the result of influenza; 45 cases had paralysis and brain softening on admission. There were 170 recoveries, or a percentage of 41·2 on the admissions, which was above the average. He was glad to say that the effect of the transfer on the patients was without exception either good or in no way harmful. The patients were on the whole much more contented in the new house than in the old, and many expressed very strong opinions in favour of the new arrangements. The cheerfulness of effect was more marked, the space greater, the air more bracing, and beauty both inside and outside more striking. The electric light contributed much to the cheerfulness. He felt that he had at his command almost ideal conditions of treatment for his patients at Craig House. The report, in conclusion, referred to negotiations going on between their managers and the city parish council, which he hoped would result in enabling them to put an end to the crowding of the rate-paid wards, and would remove the difficulty they experienced in admitting all the poorer patients who applied for admission. A vote of thanks to the Lord Provost for presiding terminated the proceedings.

The Morison Lectures.

On Friday Dr. Bruce devoted his lecture to the auditory nerve and its connexions. He showed its relations to the cerebellum and other parts, and the part played by these in maintaining equilibrium and controlling the lateral movements of the eyes. On Tuesday he delivered the sixth and last lecture, in which he dealt with the roots of the fifth, fourth, and third cranial nerves, and concluded with a survey of the origin, course, and termination of the fillet. The lectures have been well attended, and the lecturer has shown an intimate acquaintance with his subject, the result of long, laborious, and industrious work at this interesting and complex department of anatomy.

Appointment of Examiners in Clinical Surgery in the Edinburgh University.

At the meeting of the Edinburgh University Court held last week Dr. John Duncan, Mr. J. M. Cotterill, M.B., C.M., and Dr. Frederick Page of Newcastle-upon-Tyne were appointed Examiners in Clinical Surgery for a period of four years.

Professor Clifford Allbutt in Edinburgh.

Professor Clifford Allbutt, F.R.S., delivered a lecture to the Royal Scottish Geographical Society in Edinburgh on Thursday of last week. His theme was "Ancient Trade." The meeting was well attended and was presided over by Sir Thomas Clark, Bart.

Lord Rectorship of the Edinburgh University.

Mr. R. B. Haldane, Q.C., M.P., has accepted the invitation of the Edinburgh University Liberal Association to stand as Liberal candidate at the Rectorial election in November next. The Unionist candidate is not yet known.

Royal Hospital for Sick Children, Aberdeen.

The annual meeting was held on Monday. During 1895 there were 653 cases treated in the hospital, of which 548 came from the city. The total income last year was £2327, and there was a net deficit of £305, notwithstanding the cheapness of management. The public are appealed to for increased support. For ordinary cases there are now sixty beds and for infectious cases eighteen.

Aberdeen General Dispensary.

During 1895 the number of ordinary and zymotic cases was 8230. Out-door midwifery cases numbered 210, and 60 were treated in the Maternity Hospital; 36,209 prescriptions were dispensed, and there were 386 vaccinations. The year's accounts show a balance to the good of £84 on the General Dispensary, there being a deficit of £149 on the lying-in hospital.

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Agricultural Classes at the University of Aberdeen.

The Joint Committee on Agricultural Education in connexion with the University of Aberdeen have decided to join in a representation to Government to increase the grant for Scotland. There are nineteen students attending Mr. Wilson's class on agriculture and rural economy. A selection of two has been made from the applications for the lectureship on agricultural chemistry—viz., Mr. Charles M. Luxmore, D.Sc. Lond., F.I.C., Lecturer on Agricultural Chemistry to the Hertford County Council, and Mr. James Hendrick, B.Sc. Lond., F.I.C., Lecturer on Agricultural Chemistry at the Glasgow and West of Scotland College, Glasgow. The appointment will be made on March 6th.

Glasgow University.

The University Court has made the following appointments: John Yule Mackay, M.D., University College, Dundee, to be Examiner in Anatomy; Samuel Sloan, M.D., to be additional Examiner in Midwifery; T. Kennedy Dalziel to be additional Examiner in Medical Jurisprudence; and A. C. Seward, M.A., University Botanical Laboratory, Cambridge, to be additional examiner in botany. Each appointment is for a period of four years.

Ayr County Hospital.

The annual meeting of the subscribers was held on the 14th inst. The report showed a satisfactory condition of the institution both from a medical and financial point of view, and it was unanimously adopted. It was also agreed to record a special vote of thanks to Provost Goudie, who has for twenty-three years been one of the directors of the hospital and who now retires.

Royal Infirmary, Glasgow.

The wards of the infirmary have for some time been so full that in order to prevent disappointment and possible hardship, especially to those coming from a distance, the managers have issued an intimation indicating that it is advisable that inquiries be made at the hospital before the patient actually presents himself. Of course this does not refer to accidents or other cases of urgency.

Eastern Medical Society, Glasgow.

This newly formed medical society has displayed a considerable amount of vitality and enterprise ever since its foundation. The meeting on the 12th inst. was devoted to a discussion on Rheumatoid Arthritis, the discussion being introduced by a paper by Mr. Armstrong of Buxton. Mr. Armstrong reviewed the history of the disease and traced its differentiation both from gout and chronic rheumatism; in his opinion the dystrophic theory was the one which fitted the facts best, and he classified the cases according to the source of the irritation, by the action of which the trophic disturbance was produced. He strongly advocated a tonic line of treatment, and deprecated the use of alkalies, salicylates, and other depressant agents; baths, and especially the galvanic bath, he had found of great value. In the subsequent discussion Dr. Alexander Robertson, Dr. Ebenezer Duncan, Dr. C. O. Hawthorne, and Dr. Wallace Anderson took part. A general agreement was expressed with the treatment recommended by Mr. Armstrong, but some difference of opinion was manifested in regard to the separation of rheumatoid arthritis from ordinary chronic rheumatism. Dr. Hawthorne showed photographs and drawings of a case in which, together with evidences of rheumatoid arthritis, a number of subcutaneous tumours had developed, and one of these on removal was found to consist of fibrous tissue. He remarked upon the significance of such tumours as bearing upon the rheumatic nature of rheumatoid arthritis, and quoted the marked benefit which many of the patients experience from full doses of sodium salicylate as evidence in the same direction. Dr. Wallace Anderson had also reported a case of rheumatoid arthritis with subcutaneous tumours, and urged that such cases must be carefully considered in framing a theory of the disease. The chair was taken by Dr. Patrick, the President of the society.

Medical Resignations.

Dr. M'Gill, medical officer to the Glasgow police force, has sent in his resignation after a period of service extending over forty years. The resignation by Dr. W. L. Reid of the Chair of Midwifery in Anderson's College Medical School is intimated.

Typhus Fever in Glasgow.

The medical officer of health reports that since November last typhus fever has been continuously present in the city. At present 25 cases are in hospital and some 45 persons are under observation on account of their association with these cases. The great majority of the cases come from a particular district of the city notorious for the practice of overcrowding, and the report suggests that the police penalties for this practice might be more energetically enforced in the public welfare.

Greenock Infirmary.

The annual general meeting was held on the 21st inst. The report shows that during the past year the number of in-door cases admitted was 1137, and of out-door patients there were 4300. Like many similar institutions, the infirmary has to lament the lack of funds and the deficiency of the ordinary income to meet the ordinary expenditure. Sir M. Shaw Stewart will next year complete his fiftieth year as president of the infirmary.

Leith Hospital.

The following appointments have been made to the medical staff of the Leith Hospital: Dr. H. G. Langwill, M.R.C.P.Edin. (from the dispensary department), to be one of the physicians; Mr. Alexander Miles, M.D., F.R.C.S. Edin., to be one of the surgeons; Dr. David Berry Hart, F.R.C.P. Edin. and lecturer on midwifery and diseases of women, to be physician for diseases peculiar to women; Dr. W. G. Sym, F.R.C.S.Edin., to be ophthalmic surgeon; Dr. Theodore Shennan to be pathologist; and Dr. George Elder, Dr. J. S. Fowler, and Dr. A. Scot Skirving to be medical officers in the dispensary department.

Feb. 24th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Assimilation of the Irish Poor-law with that of England.

NOTICE of a paper by Dr. W. Dickson, which appeared in the *Dublin Journal of Medical Science*, suggesting an alteration of the law by which ladies might be elected on the boards of Poor-law guardians in Ireland as they were in England, and containing many arguments in favour of such a change, appeared in THE LANCET many months ago. A Bill with this object was recently brought before Parliament by Mr. W. Johnston, and, notwithstanding the opposition of a small contingent of members from Ireland, passed its second reading with a majority of 264. The change will be welcomed in Ireland, where it is generally recognised that on occasions when questions connected with the food and clothing of the women and children, who constitute the bulk of the pauper inmates, are being considered the advice of a woman might frequently prove of great service. At a meeting of the North Dublin Union on the 20th inst. a resolution was passed strongly approving of the measure.

The Athlone Guardians' Suspension.

The Athlone board of guardians, who, it will be remembered, were dismissed by a sealed order of the Local Government Board on account of their refusal to provide a trained night nurse for the infirmary, are to be restored in about a month. In reply to a question in the House of Commons Mr. Gerald Balfour stated recently that the vice-guardians temporarily appointed by the Local Government Board would cease to hold office on March 25th next, and that the usual steps would be taken for the election of a board of guardians for the union on that date.

The Election of Direct Representative on the General Medical Council for Ireland.

The voting for a direct Irish representative on the General Medical Council, which has been going on since the 20th, will close on the 27th, and it is hoped in the provinces that the head of the profession in Belfast, Professor Cuming, will be elected. The members of the profession in Cork have issued a very strong circular in support of Professor Cuming, in which they say that there are 2350 registered practitioners in Ireland, and only 350 of them reside in Dublin, yet Dublin manages to absorb nearly all medical appointments of emolument and honour. As instances they give the fact that of the 28 paid medical examiners in the Royal University of Ireland, where medical students from all parts of the country present themselves for examination, 15 examiners—that is to say, more than one-half the total number—are selected from

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the 350 Dublin practitioners, while the 2000 medical practitioners of the provinces are represented by only 13 examiners. They ask, Is this fair or just? Again, the same treatment is measured out to the provinces in regard to the General Medical Council. Ireland sends 7 representatives; 5 of these are appointed by the licensing bodies, and 1 by the Crown. These 6 are all selected from the 350 Dublin men, the other—the direct representative—has been hitherto a Dublin nominee; and the Cork medical men in this circular appeal to the provincial practitioners of Ireland to insist that at least this one direct representative shall be a provincial man ready to safeguard provincial interests. Professor Cuming is the only provincial candidate, and the Cork practitioners are appealing to the registered medical practitioners of the South of Ireland to support him.

The New Photography.

At a meeting of the Ulster Amateur Photographic Society Dr. Cecil Shaw gave a very interesting lecture on Feb. 24th on the recent discoveries of Professor Roentgen. A variety of illustrative radiographs were shown, among them being the hand of a person who, while at revolver practice, shot himself through the little finger, and the hand of a former house-surgeon in the Royal Hospital who suffered from blood-poisoning. The changes produced by the disease on the hand were well seen.

The Belfast Royal Hospital.

At the quarterly meeting, held on Feb. 24th, it was reported that during the past three months 438 patients were treated in the wards and 5005 in the extern department. Special reference was made to the loss sustained by the hospital in the death of Dr. Ross. At the end of January there was a balance against the hospital of £901 15*s.* 10*d.*

Banquet given by the President of the Ulster Medical Society.

On Tuesday, Feb. 18th, Professor Sinclair (President of the Ulster Medical Society) entertained the members of the medical profession at a banquet in the Grand Central Hotel, Belfast. Covers were laid for between sixty and seventy guests, and amongst them were the President of Queen's College, the Registrar (Professor John Purser, D.Sc.), and Professor S. Dice, M.A. Dr. Lindsay, Dr. Mackenzie, Dr. McKisack, Dr. McCaw, and Dr. Leslie contributed the musical selections, while Dr. Morrow recited some of Rudyard Kipling's poems. The evening was an extremely pleasant one, and at the conclusion the health of the President and host was proposed by Mr. John Fagan, F.R.C.S.I. Professor Sinclair suitably replied.

Tuberculosis in Cattle.

At a meeting of the Chemico-Agricultural Society of Ulster, held in Belfast on Feb. 21st, Dr. Lorrain Smith (lecturer on Pathology at Queen's College) gave a very interesting and practical lecture on "Tuberculosis in Cattle."

The Battle of the Clubs at Cork.

The situation between the clubs and the profession is maintained with a serene tranquillity which was hardly to be expected. Leading articles in the newspapers condemning the action of the medical men, vituperative letters in the same place from well-to-do club patients, denunciations from the platform, are all now things of the past. One of the most energetic club orators, who but a few months ago was the recipient of a purse of sovereigns from his admirers, has tendered his resignation as district secretary of the Oddfellows' lodges, and his brother Oddfellows have accepted his resignation, despite their past acute appreciation of his services. Can it be that the club members felt that he had led them into a tight place, from which they would gladly retreat if circumstances, from their point of view, were a little more favourable for a *volte-face*? The connexion of one of the new club medical officers with one of the clubs has been severed, and informal communications have passed between some members of the club and the secretary to the local profession. Everything shows that the upheaval against insolent tyranny has narrowed the fields of selection for the clubs. Club medical officers, at least in Cork, cannot be exchanged with the same facility as cast-off garments, for the position offered has not sufficient charms. One of the Cork clubs has, it is true, and by a narrow majority, increased the pay of their surgeon from 6*s.* 6*d.* to 10*s.* per family per annum, showing that the imported members of the faculty are teaching the clubs the same lesson as their previous officers.

Feb. 25th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Treatment of Poisoning by Carbonic Oxide.

READERS of French newspapers are familiar with the method adopted by despairing lovers and starving *ménages* to put an end to their days. A *réchaud* is lighted, all ingress of air into the room is prevented, and the poor wretches are found dead in bed when the doors are opened, the toxic agent having been carbonic oxide. Occasionally, however, a medical man is called before life is extinct, and as no time is to be lost in recalling animation it is as well that practitioners be made aware of the most effectual means, according to M. Gréhaut,[1] of neutralising the lethal properties of the gas. Experimenting in his laboratory he found that the administration of a mixture of nine litres of air and one litre of carbonic oxide stopped the respirations of a dog in less than one minute. The following remedial means were immediately and simultaneously employed—viz., artificial respiration, rhythmic traction of the tongue, and intermittent insufflation of oxygen gas. After the lapse of a few minutes the animal began to breathe and recovery quickly ensued. The best treatment of this condition would, then, appear to be a combination of these three methods. It must not be forgotten that the almost universal use of slow combustion stoves in this city occasions numerous accidents every winter from this cause. Movable stoves are still in universal use notwithstanding the frequent warning issued by the Academy of Medicine, and unthinking people will sometimes sleep in a hermetically sealed room in which such a stove is burning.

The Influence of Forests on Death-rates and Birth-rates.

This important question has been recently investigated by M. Jeannel.[2] It would appear that a process of gradual wood denudation has been going on in certain departments, and that this process has been attended by serious inconvenience from a geological, meteorological, and sanitary point of view. Censuses taken since 1871 show that in the thirty deforested departments there has been a progressive diminution in the birth-rate. Between the years 1886 and 1891 these same departments incurred a serious loss of population as represented by an excess of 89,682 deaths over births. The mortality in these departments was nine times greater than in the rest of France. This, then, would seem to be a not inconsiderable factor in the depopulation of the country, and M. Jeannel calls upon the authorities to eliminate it as speedily as possible.

The Madagascar Campaign and the Soldier's Portable Surgical Dressings.

A Ministerial decision renders it obligatory on each soldier to carry during a campaign a packet of surgical dressings in the lining of his hood. A first application was made of this regulation in the Madagascar "walk-over." Being desirous of discovering how these *paquets individuels de pansement* had stood the wear and tear of the expedition, two military surgeons, M. Batille and M. Chavigny, passed a certain number of them under inspection on the return of the troops. Many packets were found deteriorated by pressure and contact with water, only five out of the entire number being well-preserved. Fragments of the various components of each packet—gauze, bandages, wool, &c.—were sown on bouillon, with the result that the medium remained sterile. The dressings had therefore maintained their asepticity. Fragments of the dressing materials were again sown on bouillon, together with a few drops of the drinking-water supplied to Perpignan—a fairly pure water—and the result was once more negative, proving that the wool, gauze, &c. had retained their antiseptic properties. The quantity of sublimate incorporated with the dressing material was, in fact, found to be almost undiminished. But the salt had abandoned the centre of the packet in great measure, the periphery being richer in sublimate than the gauze and wool in the middle. This phenomenon might have the effect of robbing these materials of much of their virtues, and it is suggested that the inconvenience be remedied by impregnating a larger quantity of perchloride into them before they are distributed amongst the troops.

It is always a pleasure to note examples of longevity

[1] Société de Biologie, Feb. 14th, 1896.
[2] Académie de Médecine, Feb. 11th, 1896.

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amongst members of our profession. The death is reported at Saint-Bonnet-la-Rivière of Dr. Étienne Fougeras-Lavergnolle at the age of ninety-five.

Feb. 25th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Presence of Iodine in the Human Body.

PROFESSOR BAUMANN of Freiburg in Baden has recently found that iodine is one of the normal constituents of the human body, being present in the thyroid gland in a compound which contains 9·3 per cent. of iodine. He has given the name of "thyro-iodin" to this substance, and has found it also in the thyroid glands of pigs and sheep, but not in those of cattle. Professor Kocher of Berne suggested some time ago that the efficacy of the thyroid extract treatment of goitre might depend on the presence of iodine, but the chemical researches made in Berne failed to detect it. This hypothesis, however, is now confirmed by Professor Baumann's discovery, which is, moreover, of great theoretical interest.

Visiting of Hospital Patients by their Friends.

In most of the Berlin hospitals the patients are allowed to be visited by their friends for one or two hours on two or three stated days of each week. Not long ago a patient died before his relatives were admitted to see him, and this unfortunate circumstance has induced the lay press to urge the advisability of daily visits being allowed. Hospital managers and physicians in those towns where this system is already in force have been interviewed, and all without exception declared themselves to be satisfied with it. Professor Nothnagel of Vienna was very emphatic in saying that it was a mere compliance with the dictates of humanity to admit the patients' friends on any day, and, speaking as a physician, he declared that to be debarred from communication with his family might have an unfavourable influence on a sick person. The municipal hospital board recently discussed this matter at one of its meetings, and, contrary to general expectation, it rejected the proposed innovation. The reasons assigned for this decision are that visitors bring prohibited food and beverages into the hospital, and a system of daily visiting would increase the opportunities for such irregularities. Moreover, the noise produced in a hospital ward by so much coming and going is said to disturb the patients. In the *Deutsche Medicinische Wochenschrift* this decision is vigorously attacked by a former hospital physician, who states that, according to his experience, the evils complained of are practically non-existent, and he adds sarcastically that if the hospital boards would provide a less monotonous diet the visitors would be under no inducement to bring articles of food into the wards. It is very probable that the board will change its policy when any convenient opportunity presents itself.

Tuberculosis in Parrots.

Parrots seem to be very liable to tuberculosis—so much so, indeed, that of 154 parrots treated in the Veterinary Institute of Berlin 56 (equal to 36 per cent.) showed tuberculous symptoms. As the tuberculosis of these birds is caused by a species of Koch's bacillus it is possible that the disease may be transmitted to their owners or other persons. Dr. Braatz, while attending a patient suffering from tuberculosis, observed that the parrot in the house was ailing, and as examination by a veterinary surgeon proved that it was the subject of tubercle he directs attention to the possibility of tuberculous disease being acquired from these domestic pets.

Strike of Tailors in Berlin.

The strike in the tailoring trade to which allusion was made in THE LANCET of Feb. 15th (p. 436) soon came to an end through the mediation of the president of the Trades' Council. A general increase of wages has been obtained by the strikers, but the hygienic surroundings of this trade will remain as bad as before, for the masters will continue to employ middlemen, and clothing will, as a rule, be made by home-workers. Among their requirements the strikers included the providing of workshops, but this claim has now been abandoned. It is probable that the Government will propose an alteration of the law in order that the existing system of factory inspection may be extended to home industries.

Feb. 25th.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Relief of the Wounded in War.

A STORY has passed from continental journals into the British press, including some of your professional contemporaries, that M. Henri Dunant, "founder of the Red Cross Society," is, in spite of his great "service to mankind," living "forgotten by all in the Hospice of Heiden" in Switzerland, and on the strength of this a highly emotional appeal has been addressed to the charitable to "make what remains to him of life more comfortable." No doubt M. Henri Dunant is a fitting object of charity if only for what he did in promoting the movement that culminated in the Red Cross organisation; but to say that that movement began with him, and that the Geneva Convention was concluded "thanks to his tireless efforts," does not square with the facts, as these, once and again, have been placed before the readers of THE LANCET. It so happens that fresh interest attaches to the subject by the recent publication of a very able book, "Sulla Neutralità dei Feriti in Guerra e sul Soccorso immediato ed illimitato per essi" ("On the Neutrality of the Wounded in War, and on their Immediate and Unconditional Relief"), by the professor of clinical surgery in our university, a work which has already had a wide circulation and has procured for its author from the King of Italy the Badge of Cavaliere of the Order of SS. Maurice and Lazarus. Dr. Gaetano Mazzoni (the professor and author in question) enters minutely into the whole history of the movement, and confirms what your readers are already aware of—that the real founder of the Red Cross Association was the Neapolitan surgeon, Ferdinand Palasciano, in whose honour a few weeks ago a monument was erected in his native city. M. Henri Dunant, it is said, was present at the battle of Solferino on June 24th, 1859, and was so sickened by the horrors witnessed after that sanguinary engagement that he appealed to the nations to coöperate for the protection of the sick and wounded in war. But full ten years earlier, at the bombardment of Messina by King Ferdinand in 1848, young Palasciano, a surgeon then attached to the Liberal cause, though serving under the Bourbon, refused to distinguish between the wounded of either side on the ground that the healing art recognises no nationalities, and for his uncompromising assertion of the principle narrowly escaped being shot by the Neapolitan General Filangieri, and was condemned instead to a year's imprisonment at Reggio di Calabria. Released from durance, which he had beguiled by putting on paper his ideas as to the non-distinction between belligerent wounded so far as medical relief is concerned, he continued by speech and pen to agitate for such neutrality, calling the attention of the diplomatists, statesmen, and surgeons-general of Europe to the necessity of its practical recognition, particularly under the increasingly destructive conditions of modern warfare. His great opportunity next came in the struggle for Italian independence (1859–60), in the later months of which he was director of the Ospedale di San Sebastiano in Naples, and received a gold medal for his gratuitous services to the wounded. In April, 1861, he offered a considerable sum to be awarded by the Accademia Pontaniana di Napoli for "A Hundred Aphorisms on the Treatment of Wounds caused by Weapons of Precision," an occasion which drew from him a discourse in which he reasserted the proposition he had for twelve years maintained, that "the belligerent powers, on the declaration of war, should reciprocally recognise the principle of the neutrality of the combatants, whether wounded or seriously ailing, throughout the whole period of treatment, and that they should respectively adopt the practice of an unconditional, that is, non-national, augmentation of the medical *personnel* during the entire duration of hostilities." Fully alive to the difficulties of his scheme he endeavoured to enlist the coöperation, or at least the sympathies, of King Victor Emanuel and the Emperor Napoleon, by which time his crusade had begun the tour of the Continent. An officer in the commissariat of the French army next took up the theme on June 10th, 1861, insisting on the "inviolability of the army medical staff, the attendants, and the ambulances"; and then M. Appia, a surgeon of Geneva, in conjunction with M. Dunant, then a banker of the same city, conceived the project of founding, on the lines indicated by Palasciano

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(for whose prize, renewed by the Accademia Pontaniana, M. Appia was a competitor), a philanthropic society, universal in its application, with its headquarters at Geneva. Out of this grew the Convention of 1864, revised in 1868, on which latter, to the surprise of many, Palasciano was not invited to sit. His exclusion was commented on by the *Journal de Genève* (Sept. 8th, 1868) as, wittingly or unwittingly, a slight on the man "who was the first to demand the neutralisation of the wounded on the battlefield," and whose project "was the only one destined to bring this humanitarian principle into the order of civilised procedure." Equal injustice was afterwards shown him when no mention was made of his reforms in the "servizio sanitario" in time of war. These, which have assured to the ailing and the wounded the assistance now open to them, "con la partecipazione obbligatoria di tutti i medici e chirurgi ai quadri dell' Esercito e della Marina," sprang from a Royal Commission of which he was president, and were embodied in a decree countersigned on Feb. 21st, 1878, by Agostino Bertani, Pietro Cocconi, Guido Baccelli, and Colonel Manayra, M.D., Colonel Arena-Macelli, M.D., and Colonel Mantese, M.D. These facts, and many more, collected by Professor Gaetano Mazzoni, combine to vindicate for the Red Cross organisation its veritable parentage in Ferdinand Palasciano and reduce the claims so recently advanced for the undoubtedly meritorious M. Henri Dunant to nothing more than the effective promotion of a movement which had already been conceived and planned by the Neapolitan surgeon and clinician.

Feb. 22nd.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Harvard Medical College.

THE medical school is highly prosperous as regards the number of students, but, owing to the additional instruction required by the new fourth year in the course for the medical degree and to the great development of costly laboratory instruction, the income of the school has for two years fallen short of its expenses. The school has taken an active part in developing the new bacteriological methods by which diphtheria may be distinguished from other throat affections of similar appearance. The importance of the summer courses and the graduate courses given by the school gradually increases. Early in the year the faculty voted to admit women graduates in medicine to the graduate course of the school at the discretion of the several instructors in charge of such courses, provided that the rules of the hospitals in which clinical instruction is given be observed.

Against High Buildings.

The enormous height of the more recent buildings in New York (twenty-five storeys) is beginning to excite public alarm. The Chamber of Commerce has issued a vigorous protest against them. A committee to whom was referred the question if in their judgment the construction of buildings in this city without limit as to height and without reference to width of the streets is consistent with the public health and welfare, report that after consultation with many of the best known experts the committee have come to the conclusion that, in their judgment, such construction of buildings without limit as to height and without regard as to width of streets is not consistent with public health, and that the interests of a majority of our citizens require that the height should be limited. It appears evident that the health of the occupants of their own lower floors as well as of the lower floors in neighbouring houses must suffer for want of proper ventilation and sunlight. These evils would become aggravated, the eyesight of tenants would suffer by the compulsory use of artificial light, and their health by dampness and other unhealthy conditions if the number of tall buildings should materially increase. The safety of buildings adapted for offices may become impaired by weight of merchandise or vibration of machinery when the owners cease to find them profitable for offices and allow them to be used for mercantile or manufacturing purposes contrary to law. The Taylor building on Park-place, once considered fireproof, collapsed about four years ago, burying sixty workmen in its ruins, in consequence of the weight of some machinery which had been placed in it. It is said of some large buildings in New York which for some years have been popular for offices on account of superior light and ventilation that owners intend to adapt them for other purposes since the light has been diminished by taller buildings opposite.

The Tramp Nuisance.

The Chief of Police of New York has recently reported on the tramp nuisance. It appears that, on the urgent recommendation of the Chief, the Police Commisioners are about to forbid the lodging of tramps in the station-houses. He states that their number fell under the hostile attitude assumed by the police since 1893 from 127,503 in that year to 68,025 in 1894 and 65,556 last year—that is, from a nightly average of 400 the year round to 200 and below. As a matter of fact, the number is of course much larger in the winter than in the summer months. It is the women lodgers that remain then. The men are out foraging the country. Thus in January, a year ago, 1148 men and 535 women lodgers slept in the Oak-street Station. In August there was only one male lodger to 484 women. In December, 1895, again, the number had risen to 1154 men and 654 women. Night after night foul hordes of tramps are herded together here in rags that have often not left their bodies since they were put on and never will till they drop off. They sleep on hard boards, huddled together, hungry as they came in, and go out in the morning hungry, to beg their way from door to door, scattering seeds of contagion and disease through the city. The Board of Surgeons is of the opinion that it would be recreant to its duty did it not strenuously urge upon the Board of Police the propriety, the economy, nay, the absolute necessity, of discontinuing the practice of using station-houses as lodgings for vagrants. The practice is fraught with numerous evils; the huddling together like cattle of drunken, dirty, and ofttimes diseased wretches contaminates the air breathed by patrolmen in the same building; it spreads typhoid fever and other diseases, and is a prolific and traceable source of sickness among the officers and men.

Rank of Graduates of the Medical Colleges of New York.

The Regents of the State of New York report that an analysis of the result of licensing examinations shows that the Woman's Medical College of the New York Infirmary stands at the head of the list, with the College of Physicians and Surgeons holding second place. Since these examinations were begun only one graduate of the Woman's College of the New York Infirmary failed to pass.

New York as a Medical Centre.

It is easy to show that New York is the leading State in matters pertaining to higher medical education. Since 1892 there has been a growth of about 700 in the number of medical students and of more than 400 in the number of medical students from other States and countries who have come to study in New York institutions. There has been an increase of over 500 per cent. in the number of post-graduates. The sum invested in medical schools increased from $2,764,530 in 1891 to $4,061,293 in 1895, and the amount of money expended for medical education increased from $365,405 in 1891 to $697,653 in 1895.

Feb. 14th.

DIPHTHERIA IN LONDON.—The number of deaths registered in London from diphtheria in the week ended Feb. 15th—namely, 45—was distinctly lower than in several earlier weeks, although in excess of the decennial average for the seventh week of the years 1886-95 by 12. It showed considerable reduction, however, from the 51, 61, and 63 deaths registered in the three preceding weeks. Of the 45 deaths, all but 2 were in young persons aged under twenty years. In Kensington and Greenwich there occurred 5 deaths each, and in Paddington and Islington 4 each. During the week the admissions to hospital were 97, as against 122, 102, and 94 in earlier weeks. The patients remaining in hospital at the close of the week were 712 in number, as compared with 689 and 658 at the close of the corresponding weeks of the two preceding months. Last week the registered deaths rose to 48, and were 16 in excess of the decennial average for the particular week. Camberwell was credited with 6 and Lambeth with 4 of the deaths. All but 2 of the 48 deaths were again in young persons aged under twenty years. The admissions in the week were 108, and 713 patients remained under treatment on Saturday last. In the two weeks here treated of there were 23 deaths registered from diphtheria in Greater London, and of these 6 occurred in the West Ham district.

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Medical News.

UNIVERSITY OF LONDON.—The following candidates passed the Intermediate Examination in Medicine, January, 1896:—

ENTIRE EXAMINATION.

SECOND DIVISION.

Alexander, Kenneth Bush, Guy's Hospital.
Anderson, William Maurice, London Hospital.
Balderston, Robert, Guy's Hospital.
Barron, Henry Thompson, Westminster Hospital.
Belfrage, Sydney Henning, University College.
Briscoe, John Charlton, King's College.
Cammidge, Percy John, St. Bartholomew's Hospital.
Clifford, Harold, University College.
Collens, Edward Howard, Mason College.
Eason, Herbert Lightfoot, Guy's Hospital.
Fairbank, Harold Arthur Thomas, Charing-cross Hospital.
Forster, Lucinda C. Emily, London School of Medicine for Women.
Glover, John Abel, Guy's Hospital.
Kelly, Charles Ernest M., Owens College and St. Bartholomew's Hospital.
Knight, Charles Voughton, St. Bartholomew's Hospital.
Lander, Charles Llewellyn, B.Sc., London Hospital.
Lewis, Frank Charles, St. Mary's Hospital.
Meakin, Ethilda Budgett M., London School of Medicine for Women.
Norman, Ralph, London Hospital.
Perdrau, Joseph Arthur, University College.
Utley, Charles Joseph, Owens College.
Watson, James Vincent, Owens College.

EXCLUDING PHYSIOLOGY.

FIRST DIVISION.

Gates, Edward Alfred, St. Thomas's Hospital.

SECOND DIVISION.

Barlow, Herbert Cecil, Westminster Hospital.
Bingham, Sydney Oliphant, St. Thomas's Hospital.
Cheesman, Herbert Hilton, Westminster Hospital.
Everington, Herbert Devas, St. Bartholomew's Hospital.
Fox, Herewald Evelyn Croker, Guy's Hospital.
Fox, Thomas Heber, Yorkshire College.
Gibbins, Herbert Bowly, St. Bartholomew's Hospital.
Hanson, Helen Beatrice, London School of Medicine for Women.
Hatfield, Ronald, St. Bartholomew's Hospital.
Ibotson, Edward Cecil Brearey, Guy's Hospital.
Liddel, William Henry Singer, St. Mary's Hospital.
Longley, John Augustus Noel, Mason College.
Owsley, George Chetwode, Guy's Hospital.
Parrett, Edward Erratt, B.A., Guy's Hospital.
Parsons, Allan Chilcott, St. Thomas's Hospital.
Rhodes, James Herbert, St. Bartholomew's Hospital.
Richards, George Maurice Oswald, Owens College.
Robinson, John Elliott, St. Bartholomew's Hospital.
Rowland, Penry William, St. Bartholomew's Hospital.
Taunton, John Godfrey Creswell, Mason College.
Tayler, George Padgett, St. Bartholomew's Hospital.
Taylor, Isaac, Yorkshire College.
Miller, George Valentine, University College.

PHYSIOLOGY ONLY.

FIRST DIVISION.

Aveline, Henry Talbot Sydney, Bristol Medical School.
Wallis, James Garfit, London Hospital.

SECOND DIVISION.

Beit, Francis Victor Owen, St. Bartholomew's Hospital.
Crisp, George Bedford, St. Mary's Hospital.
Günther, Hermann Arthur, University College.
Handson, Lionel Edwin Charles, Guy's Hospital.
Jones, John Llewellyn, University College.
Northcote, Percy, St. Thomas's Hospital.
Rowe, William Trethowan, St. Bartholomew's Hospital.
Scott, Henry Harold, St. Thomas's Hospital.
Stock, William Stuart Vernon, University College, Bristol.
Stuart, Walter Lea, Guy's Hospital.
Thwaites, Gilbert Bahn, St. Thomas's Hospital.
Woodbridge, Elliot Wilson, St. Bartholomew's Hospital.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates passed the examinations in February, 1896:—

Surgery.—W. P. Bean, Leeds; R. D. Doble, King's College Hospital; H. W. Graham, Guy's Hospital; E. M. Henwood, Royal Free Hospital; M. K. S. Holst, Royal Free Hospital; R. B. Jones, Liverpool; W. R. Kemp, Cambridge and St. Mary's Hospital; W. A. Kidd, Liverpool; and A. C. Thornton, St. Thomas's Hospital.

Medicine, Forensic Medicine, and Midwifery.—J. H. Busteed, Guy's Hospital; H. C. F. Dalton, Charing-cross Hospital; A. G. Everard, Charing-cross Hospital; F. J. Gaine, Cambridge and St. Mary's Hospital; L. Hogg, McGill University; H. R. Hurry, Melbourne; W. A. Kidd, Liverpool; E. A. McAnally, St. George's Hospital; J. R. McKinlay, Westminster Hospital; R. H. Ormsby, Westminster Hospital; F. E. Rimer, McGill University; and G. A. Simpson, London Hospital.

Forensic Medicine and Midwifery.—J. Ponsonby, Guy's Hospital; G. R. Smith, Manchester; and C. H. Thomas, London Hospital.

Medicine and Forensic Medicine.—C. H. Dearden, Leeds; and C. H. Nicholson, Middlesex Hospital.

Medicine.—A. P. Eldred, St. Mary's Hospital.

Forensic Medicine.—F. R. Baker, London Hospital; and A. J. Pedley, Birmingham.

Midwifery.—F. E. Bromley, London Hospital; P. H. Collingwood, St. Thomas's Hospital; E. C. Hort, Cambridge and Guy's Hospital; and F. E. Saunders, Cambridge and St. Thomas's Hospital.

To Messrs. Baker, Bromley, Busteed, Dalton, Eldred, Gaine, Jones, Kidd, Rimer, Simpson, and Thornton was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

ROYAL COLLEGE OF SURGEONS IN IRELAND: FELLOWSHIP EXAMINATION.—The following gentlemen have passed the primary part of the examination:—Mervyn Winfred Falkner and Percy Hope Falkner.—The following gentlemen having passed the necessary examination have been admitted Fellows of the College:—Bernard Robert Chatterton, Patrick Joseph Fagan, Edward Henry Taylor, and Alfred Ernest William Ramsbottom.

MACCLESFIELD GENERAL INFIRMARY.—The annual report of the Macclesfield General Infirmary for the year 1895 shows that 691 in-patients were admitted, of whom 111 were accident cases. There were in addition 730 home-patients treated and 1867 out-patients. Among the in-patients there were 41 deaths and among the other classes 29 deaths. On Dec. 31st, 1895, there were 51 in-patients under treatment. The income for 1895 was £2955 and the expenditure £2826, leaving a balance of £129 in hand.

FOREIGN UNIVERSITY INTELLIGENCE.—*Heidelberg:* Dr. Passow, Assistant to Professor Trautmann in the Ear Department of the Berlin Charité, has been appointed Extraordinary Professor of Otology in succession to Dr. Moos.—*Lausanne:* Dr. Louis Secretan has been appointed Extraordinary Professor of Otology and Laryngology.—*Lille:* Dr. Combemale has been appointed Professor of Clinical Medicine; Dr. Curtis, Professor of Pathology and Pathological Anatomy; and Dr. Laguesse, Professor of Histology.—*Turieff (Dorpat):* Dr. W. Kurchinski of Kieff has been appointed Extraordinary Professor of Physiology.

THE PORTSMOUTH WATER-SUPPLY.—The proposal to take over the undertaking of the Portsmouth Waterworks Company by the Corporation has been little heard of during the last few months, but meanwhile a rather unexpected development has occurred in another direction. The company is promoting a Bill in Parliament for powers to divert a stream and to supply four villages closely adjacent to the present mains. This has evoked much opposition from local bodies, but at a meeting of the shareholders on Thursday, Feb. 20th, a minority successfully opposed the latter part of the scheme. It was argued that the 35,000 houses now being supplied in Portsmouth were increasing at the rate of some 4000 per annum. If the directors had money to spare, said one, let them pay off the arrears of dividends. If they had more water than they knew how to dispose of, let them reduce the prices to the present customers. Ultimately, on the directors undertaking to drop the clauses objected to—viz., as to the extension of the district—in committee of the House of Commons it was unanimously agreed to promote the Bill.

ST. THOMAS'S HOSPITAL.—On Friday, Feb. 21st, the Duke of Connaught, accompanied by the Duchess, visited St. Thomas's Hospital, of which His Royal Highness is the president, to perform the ceremony of reopening two wards—the Beatrice and Florence wards. Mr. J. G. Wainwright, the Treasurer of the Hospital, delivered an address. He recalled former Royal visits to the hospital, notably those of Her Majesty in 1868 and 1871, the occasions respectively of laying the foundation stone of the new hospital and of declaring the same open. He referred to the enormous increase in population, to the financial crisis through which the hospital had passed, and to the modified success which had attended the appeal for £100,000. The actual sum received was £27,000. They had to devote £6000 per annum to pay off debts incurred by rebuilding. The £27,000, however, had enabled them to pay off half the arrears of debt and to open two wards—the "Florence" and "Beatrice"—out of the five closed. His Royal Highness then declared the wards open and referred to the difference between North and South London in the matter of hospital accommodation. The former, with a population of two and a half millions, has 7000 beds; the latter, with a population of one and a half million, has but 926 beds. His Royal Highness concluded with an earnest appeal for subscriptions. The Archbishop of Canterbury offered a prayer and gave a blessing, after which their Royal Highnesses were conducted through the reopened wards.

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As we go to press we sincerely regret to learn the death of Mr. Thomas William Thompson, Medical Inspector, Local Government Board.

LITERARY INTELLIGENCE.—We understand that Professor Stewart's new "Manual of Physiology" has proved a success, and that the publishers, Messrs. Baillière, Tindall, and Cox, are reprinting the same edition, the time being too short for the author to prepare a new edition or to make even alterations. This exemplifies the opinion we expressed on the exceptional merits of the book when reviewing it on its first appearance a few weeks since.

PRESENTATIONS TO MEDICAL MEN.—Mr. William Salisbury-Sharpe, L.R.C.P. Lond., M.R.C.S., has been presented by the members of the St. John Ambulance Corps at Paddington Station with a case of surgical instruments, as a recognition of his appreciated instruction in ambulance aid. — Mr. David T. Key, M.R.C.S. Eng., has been the recipient of a silver cigarette case from the Reading corps of the St. John Ambulance Brigade as a token of their regard and esteem.

THE DIFFUSION OF SMALL-POX.—Last week, for the sixth successive week, there was no death from small-pox registered in London, nor was any death from that malady registered in any of the other thirty-two great towns. In London the admissions to the hospital ships of the Metropolitan Asylums Board of small-pox cases last week numbered only 5, as compared with 12, 6, and 12 in the three weeks preceding. The patients remaining under treatment on Saturday last were 58 in number, as against 82 and 73 respectively on the corresponding Saturdays of the previous two months. News from Oxford states that no fresh cases have occurred as a result of the infection disseminated from the tramp who, as we have stated, brought the disease into the city a short time back. In Gloucester strenuous efforts are being made by the medical officer of health to nullify the opposition of the anti-vaccinators to the due observance of the Vaccination Laws. The removal of the assizes to Cheltenham, the unanimous resolutions at the recent meeting of medical men in favour of vaccination, and the data given thus far available from the present small-pox epidemic in the city, ought to have weight in determining the guardians to do all in their power to secure that persons exposed to small-pox infection shall be either vaccinated or revaccinated as they may require. Dr. Bond is leaving no stone unturned in his praiseworthy attempts to save the town from the results of previous ineptitude. In South Wales a further case of small-pox has been recorded at Aberavon, the sufferer being a travelling sweep from Pontypridd, whose illness was diagnosed by a police inspector at the station to which the man had gone on not feeling well. He was at once removed to the infectious hospital, and the lodging-house where he slept on the preceding night was thoroughly disinfected. Another case, making the ninth, has occurred at Swansea, the patient having come to Port Tennant from Gloucester. At Pontypridd a tramp has been admitted to the hospital within the workhouse walls he having developed small-pox whilst in the workhouse on the preceding night. It is believed that he came from Tredegar, and he admits having slept in a lodging-house in Pontypridd on the night before going to the workhouse. The advisability of isolating the man within the walls of the building seems very questionable, but the authorities may possibly have had no choice in the matter. A man who left a lodging-house in Llanelly last week has been notified to the medical officer of health as having fallen ill of small-pox soon after leaving the town, consequently the house that he lately sojourned in has been fumigated as a precautionary measure. Last week there were 2 fresh cases of small-pox notified in the workhouse at Cardiff, making 20 in all that have been removed from the institution, all of them males. Of the 200 inmates, only some 70 have submitted themselves to revaccination, and not one of the revaccinated has taken the disease. A fresh case also occurred in the town, the father of the patient being a mason who had been working at the infected workhouse. At Brynmawr the tenant of the lodging house from which a family had been removed to be placed in quarantine on account of small-pox in one of their number, has now contracted the disease. He has been isolated with the members of the other family, but further cases are, in these circumstances, not unlikely to occur. It has been agreed to erect temporary means of treatment near the isolated quarantine building. A case has been reported to the Bedwellty guardians as having arisen at Blackwood in the person of a tramp from Pontypridd, who was housed in a common lodging in the place. At Dowlais another case has been recorded. Of the 11 patients removed from the vessel *North Cambria* and isolated in Limerick Workhouse most are natives of Wales and two have been discharged as fully convalescent. At the end of the second week of February only 3 small-pox patients remained under treatment in hospital in Dublin.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—A supplementary circular to that which we published in THE LANCET of Feb. 15th, referring to the next general meeting of this association, states that the papers will be read at 4 P.M. in the Pathological Laboratory of the New Museums, Cambridge, and *not at the hotel*. The council meeting will be held at the University Arms at 2 P.M., as previously announced, and arrangements will be made to conduct over the colleges next morning those members who are staying at Cambridge for the night.

THE JOURNEYINGS OF A SCARLET FEVER CASE.—The Leatherhead Urban Council is unable to get any further in a case which certainly merited all the investigation it has received. There had been an outbreak of scarlet fever at the St. John's Foundation School, but when the school reopened after the Christmas holidays this had entirely subsided. On Dec. 30th, 1895, a lad travelled to Leatherhead from Stoke-upon-Trent, and on going before the resident medical officer on admission was found to be suffering from the disease, which had actually reached the peeling stage. Prompt measures were taken; the authorities removed the patient to the Cheam Infectious Hospital without his having actually entered the school, and the London and South-Western Railway Company put the whole train in which he journeyed out of use and under disinfection. The boy had been laid up with what had been called influenza in the holidays, and actually brought with him, it was reported, a certificate of immunity from infectious trouble signed by two medical men. The railway company has been considering the issue of proceedings, and offered their assistance to the sanitary authority in a like step, but were advised that the by-law (16) dealing with the matter applied only to a person who had charge of a traveller suffering from infectious disease while on the premises of the company. They suggested, therefore, that the Leatherhead authorities should first, and subsequently the Stoke Council, take up the matter with a view to the litigation mentioned under the Public Health Act, 1895, Section 126. The clerk to the Leatherhead Council pointed out that this section was directed against "any person who, while suffering from any infectious disorder, wilfully exposes himself without proper precaution against the spread of such disorder, or in public conveyances," &c., and advised that the attempt to obtain a judgment under such a section would prove futile. The council gave no instruction in the matter.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Food Products Adulteration.

THE Select Committee on this subject has been reappointed, the terms of the reference being "to inquire into the working of the Margarine Act, 1887, and the Sale of Food and Drugs Act, 1875, and any Acts amending the same, and report whether any, and if so, what amendments of the law relating to adulteration are in their opinion desirable."

Diseases of Animals Act.

The Bill introduced by the Government amending this Act makes permanent the existing regulations of the Board of Agriculture as to the importation of diseased cattle from abroad—that is to say, it requires all imported cattle to be slaughtered at the port of entry. In introducing the Bill, the President of the Board of Agriculture quoted figures to show that while the regulations have not had the effect of increasing the price of meat, they have been of enormous value in protecting from disease the flocks and herds of this country.

Law of Public Health in Scotland.

The Government, fulfilling the promise made in the Queen's Speech at the beginning of the Session, has introduced a Bill amending and extending the Law of Public Health in Scotland, and in order that

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progress may at once be made with the measure it has introduced it in the House of Lords. The intention of the Government is, after getting this amending Bill through, to bring forward a consolidation bill, which shall bring into one statute all the provisions of the law with regard to Public Health in Scotland. The Bill introduced deals, among other things, with the definition of statutory nuisances, extending it so as to include nuisances "dangerous" to public health, it gives local authorities power to trace milk supplies to their source, it makes general to the country a number of building regulations now confined to the larger burghs, and in several other respects advances the law of public health.

HOUSE OF COMMONS.

THURSDAY, FEB. 20TH.

Treatment of Lunatics in Ireland.

Mr. Gerald Balfour, Chief Secretary for Ireland, said, in reply to a question, that the subject of the admission and treatment of inmates in workhouses in Ireland engaged his careful attention during the recess in connexion with the general question of workhouse administration in Ireland. It was true that in some workhouses harmless epileptics were sent to the lunatic wards, and the Local Government Board often pointed out to guardians that this was not a desirable arrangement. It had been frequently explained in answer to questions in the House that destitute persons of unsound mind were sent to Irish workhouses without either legal warrant or committal, and if unable to take care of themselves they were detained and not allowed to take their discharge. Restraint was only employed in workhouses, as in all civil hospitals, by order of the responsible medical officer, who directed that it should be imposed when he deemed it necessary for the safety of the patient or those about him. The Local Government Board had, however, always advised guardians that when a lunatic in a workhouse was so violent as to require restraint the guardians should endeavour to have him or her committed to the asylum. He might add that the Government had under consideration the introduction of a Bill for facilitating amalgamation of workhouses and for making better provision for certain classes of the destitute poor in Ireland.

Miners' Nystagmus.

Mr. Drage asked the Secretary of State for the Home Department whether he will consider the desirability of an official investigation into the cause of miners' nystagmus and the best means of preventing that disease.—Sir M. White Ridley replied: I am not prepared to institute any general inquiry into the causes of miners' nystagmus. I understand that the hon. member's view is that this disease is frequently caused by defective safety lamps, and if he will bring to my notice any cases of nystagmus which are supposed to be due to this cause I will have inquiries made. This can be done in the first instance by the inspector of the district, and if necessary a medical man can be consulted.

FRIDAY, FEB. 21ST.

Enteric Fever in Dublin Barracks.

Mr. Brodrick, replying to a question put by Mr. Hulse, said he regretted that several cases of enteric fever, of which three had proved fatal, had occurred among the cavalry stationed at Island Bridge Barracks, Dublin. Immediately this outbreak of disease was known at the War Office steps were taken to ascertain the cause. Careful investigation was made locally, Sir Charles Cameron made a searching inquiry, and a sanitary expert was sent over from London. All improvements represented by the experts to be immediately desirable were at once ordered to be carried out, and the Secretary of State for War was considering whether, in view of the facts disclosed, it might not be expedient to find some other site for the barracks rather than spend a large sum in improving their condition.

Teaching University for London.

Mr. W. F. D. Smith asked the Vice-President of the Committee of Council on Education whether the Government intend taking any steps with regard to a Teaching University for London during the present session.—Sir John Gorst replied that the subject is under consideration, and it is hoped that an early decision will be arrived at as to the steps which it is expedient to take.

The Flash-point of Mineral Oils.

Sir M. White Ridley, answering a question on this subject put by Mr. Tully, said that he was not aware that the law in America with regard to the sale of these oils was that producers were not allowed to sell to consumers in the United States paraffin oil with a flash-point under 95° or 100° F., while they could ship to this country oil with a flash-point of 73° F. and under. In fact, he was advised that the law as to flash-point varied in nearly every state, and that in some states there was no law at all. To prohibit the importation of petroleum with a flash-point of less than 95° or 100° would be prohibitive of mineral spirit which was required in many industries; but the question of whether any amendment of the law in regard to flash-point was desirable was one that would doubtless be carefully considered by the Select Committee of this House.

MONDAY, FEB. 24TH.

Army Medical Department.

Dr. Farquharson asked the Under Secretary of State for War whether there will be a vacancy shortly in the Director Generalship of the Army Medical Department, and whether it is true, as rumoured, that it is the intention of the War Office not to appoint the senior officer of the department as successor to Sir William M'Kinnon.—Mr. Brodrick replied: There will in a few months be a vacancy in the post of Director-General of the Army Medical Department. Selection for appointments of this nature is made subject to the approval of Her Majesty by the Secretary of State after considering the recommendation of the Army Board. The name of the officer selected will shortly be made public.—Dr. Tanner asked the Under Secretary of State for War whether there has been any falling off of candidates for commissions in the Army Medical Department; if so, what is considered the cause; whether the same result occurs in connexion with candidates for the Indian Medical Service; and what were the numbers presenting themselves for examination in these Services respectively for the past three years.—Mr. Brodrick replied that in proportion to the vacancies offered for competition there was a falling off in the number of candidates in 1895 as compared with 1893 and 1894. The same result occurred, though in a less degree, for the Indian Medical Service. The candidates during the last three years have been for the Army Medical Staff: 59 for 26 vacancies, 51 for 22 vacancies, and 40 for 27 vacancies; for the Indian Medical Service: 63 for 27 vacancies, 69 for 28 vacancies, and 70 for 34 vacancies. The causes of this diminution are engaging the serious consideration of the Secretary of State, and I hope to be in a position to make a statement upon the subject in introducing the Army Estimates.

Infectious Disease Notification.

Mr. Chaplin, in reply to a question by Sir John Brunner, said that the Infectious Disease Notification Act, 1889, has been adopted in 814 urban districts, 585 rural districts, and 38 port districts. Compulsory notification is also in force throughout London under the Public Health (London) Act, 1891, and in 49 towns under provisions in local Acts. The population, according to the last census, of the districts in which notification is compulsory, is 27,220,000, out of a total population of 29,000,000. The question as to the advisability of making the Act of 1889 compulsory has been considered by me, but I think that the Act is much more likely to be enforced when it is voluntarily adopted by a local authority than when it is made applicable to a district without the concurrence of the authority. There are now 202 urban and 94 rural districts, including districts which have recently been constituted, in which the Act is not yet in operation. I am proposing to communicate with the authorities of these districts, and I hope that the number of districts in which the Act is not in force will be considerably diminished in the course of the present year.

Work in Cotton Factories.

Sir Matthew White Ridley, in reply to a question by Mr. George Whiteley, said he proposed to appoint a committee of three experts to inquire into the working of the Cotton Cloth Factories Act, 1889, and into the whole question of steaming and the introduction of artificial moisture into cotton-weaving factories.

TUESDAY, FEB. 25TH.

New Boot for the Army.

Mr. Powell Williams, in reply to a question on this subject, said the various experimental patterns of boots had for several months past been under practical trial, but until some pattern had stood a thorough and conclusive test, it would be premature to adopt it for the troops. No undue delay would occur in the selection of a new pattern.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BLABER, P. L., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

BANNATYNE, GILBERT A., M.B. Glasg., M.R.C.P. Edin., has been appointed Honorary Physician to the Royal United Hospital, Bath, vice Dr. Biddlecombe, resigned.

BANTOCK, GRANVILLE, M.D., F.R.C.S. Edin., Senior Surgeon to the Samaritan Free Hospital, London, has been elected on the Consulting Staff.

BOWKER, GEORGE B., M.B., C.M. Edin., has been appointed Honorary Assistant Physician to the Royal United Hospital, Bath.

BRAKENRIDGE, F. J., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Electrical Department at St. Thomas's Hospital.

CAMPBELL, JOHN, M.A., M.D., M.Ch., M.A.O. Irel., F.R.C.S. Eng., has been appointed Assistant Physician to the Belfast Maternity Hospital, vice R. Strafford Smith, resigned.

COADY, D. P., F.R.C.S.I., has been appointed Medical Officer to the Naas Infirmary.

CONFORD, G. J., B.A., M.B., B.Ch. Oxon., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

COOK, H. G. G., M.D. Lond., B.S., F.R.C.S., L.R.C.P., has been appointed Honorary Assistant Surgeon to the Cardiff Infirmary.

COTTERIL, J. M., M.B., C.M., F.R.C.S. Edin., has been appointed an Examiner in Clinical Surgery in the University of Edinburgh.

CROUCH, H. C., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

DAWNAY, A. H. P., L.R.C.P., M.R.C.S., has been appointed Senior Ophthalmic House Surgeon to St. Thomas's Hospital.

DIXON, W. E., B.Sc. Lond., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.

DOBIE, WM. MURRAY, M.D. Edin., M.R.C.S., has been appointed Honorary Consulting Physician to the Wrexham Infirmary.

DUNCAN, J., M.D., F.R.C.S. Edin., F.R.S.E., has been appointed an Examiner in Clinical Surgery in the University of Edinburgh.

DYBALL, B., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

ELDER, GEO., M.B., C.M., M.R.C.P. Edin., has been appointed Medical Officer in the Dispensary Department of the Leith Hospital.

EVANS, FREDK., M.D., C.M. Aberd., M.R.C.S., has been appointed Honorary Physician to the Cardiff Infirmary, vice F. Evans.

FARQUHARSON, J. MALCOLM, M.B., C.M. Edin., has been appointed Surgeon to the Eye, Ear and Throat Infirmary of Edinburgh.

FISHER, J. HERBERT, M.B., B.S. Lond. Univ., F.R.C.S. Eng., has been appointed Assistant Ophthalmic Surgeon to St. Thomas's Hospital.

FOWLER, JAS. S., M.B., C.M. Edin., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer in the Dispensary Department of the Leith Hospital.

FRAZER, W. D., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

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GENGE, G. G., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician to St. Thomas's Hospital.

GRIFFITHS, P. R., M.B., B.S. Lond., M.R.C.S., has been appointed Honorary Surgeon to the Cardiff Infirmary, vice Hardyman.

HALL, JOSEPH PERCY, M.B., Ch.B. Vict., M.R.C.S., L.R.C.P., has been appointed Junior House Surgeon to the Salford Royal Hospital, vice John Ray.

HANNAH, NATHAN, L.R.C.P. Edin., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for a period of three years to the Abram District Council, Lancashire.

HARCOURT, G. R., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

HART, D. R., M.D., F.R.C.P. Edin., has been appointed Physician to the Leith Hospital.

HICHENS, P. S., M.A., M.B., B.Ch. Oxon., L.R.C.P., M.R.C.S., has been appointed Non-resident House Physician to St. Thomas's Hospital.

KENT, P. W., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

KNOCKER, W. D., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Special Department for Diseases of the Skin at St. Thomas's Hospital.

LANGWILL, H. G., M.B., M.R.C.P. Edin., has been appointed Physician to the Leith Hospital.

MILES, ALEX., M.D., F.R.C.S. Edin., has been appointed Medical Officer to the Leith Hospital.

PAGE, FRED., M.D. Edin., M.R.C.S., has been appointed an Examiner in Clinical Surgery in the University of Edinburgh.

PALIN, E. W., L.R.C.P., M.R.C.S., M.A., M.B., B.Ch. Oxon., has been appointed Non-resident House Physician to St. Thomas's Hospital.

PATERSON, W. H. J., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

PRAIN, J. L., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

RAY, JOHN HOWSON, M.B., Ch.B. Vict., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Salford Royal Hospital, vice Ernest Knight, resigned.

RENSHAW, J. A. KNOWLES, M.B., C.M., M.A., Cantab., L.S.A. Lond., has been appointed House Surgeon to the Manchester Royal Infirmary.

SAUNDERS, E. A., M.A., M.B., B.Ch. Oxon., L.R.C.P., M.R.C.S., has been appointed Junior Ophthalmic House Surgeon to St. Thomas's Hospital.

SECCOMBE, P. J. A., M.A. Cantab., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Electrical Department of St. Thomas's Hospital.

SHENNAN, THEODORE, M.D., C.M. Edin., has been appointed Pathologist to the Leith Hospital.

SIM, W. G., F.R.C.S. Edin., has been appointed Ophthalmic Surgeon to the Leith Hospital.

SKIRVING, A. SCOT, M.B., C.M. Edin., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer in the Dispensary Department of the Leith Hospital.

SMITH, J., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

STONHAM, CHARLES, F.R.C.S.E., has been appointed Surgeon to the Westminster Hospital, vice George Cowell, resigned.

STRANGE, R. G., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Special Department for Diseases of the Ear at St. Thomas's Hospital.

TAYLOR, A. E., M.B., C.M. Edin., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Honorary Assistant Physician to the Cardiff Infirmary.

TAYLOR, JAMES, F.R.C.S.E., has been appointed Honorary Consulting Surgeon to the Wrexham Infirmary.

TAYLOR, WM., M.D. Edin., L.R.C.P. Edin., M.R.C.S., has been appointed Honorary Consulting Physician to the Cardiff Infirmary.

THORNELY, W., B.A. Cantab., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Special Department for Diseases of the Throat at St. Thomas's Hospital.

THORNTON, F. B., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.

TURNER, WILLIAM, M.B., F.R.C.S., L.R.C.P., has been appointed one of the Visiting Surgeons to the Seamen's Hospital in the Royal Victoria and Albert Docks, which is a Branch of the Seamen's Hospital Society (*Dreadnought*), at Greenwich.

WALLACE, L. A. R., B.A., M.B., B.Ch. Oxon., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

WATKINS, BERNARD VINCENT, M.B., Ch.B. Vict., M.R.C.S. Eng., and L.R.C.P. Lond., has been appointed House Surgeon to the Manchester Royal Infirmary.

WILSON, C. W. GRANT, L.R.C.P., M.R.C.S., has been appointed Junior Obstetric House Physician to St. Thomas's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM AND MIDLAND EYE HOSPITAL, Birmingham.—Assistant House Surgeon. Salary £50 per annum, with apartments and board.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN, Steelhouse-lane, Birmingham.—Extra Acting Surgeon for one year.

BOLTON INFIRMARY AND DISPENSARY.—Senior and Junior House Surgeons for one year. Salary for the Senior £120, and for the Junior £80 per annum, with apartments, board, and attendance.

BOSCOMBE HOSPITAL, Shelley-road, Boscombe, Bournemouth.—House Surgeon, unmarried. Salary £60, with board (exclusive of wine or beer), lodging, and washing.

BRISTOL GENERAL HOSPITAL.—House Surgeon for three years. Salary £120 per annum, board, residence, &c., provided in the house.

BURTON-ON-TRENT INFIRMARY.—House Surgeon. Salary £130 per annum, with prospective advantages, also coals and gas.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer for twelve months. Salary £60 per annum, with board, lodging, and washing.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Salary at the rate of £30 per annum, with board and residence.

CORNWALL COUNTY LUNATIC ASYLUM, Bodmin.—Junior Assistant Medical Officer. Salary £100 a year, increasing £10 yearly to £120 a year, with board, lodging, &c.

FARRINGDON GENERAL DISPENSARY AND LYING-IN CHARITY, Bartlett's-buildings, Holborn, E.C.—Honorary Physician.

GENERAL HOSPITAL, Nottingham.—Assistant House Surgeon for six months. Board, lodging, and washing in the hospital provided. Also Assistant House Physician for six months. Board, lodging, and washing in the hospital provided.

GREENWICH UNION INFIRMARY.—Second Assistant Medical Officer, unmarried. Salary £80 per annum, with board, lodging, washing, and attendance in the infirmary, and twopence per day in lieu of beer. Applications to the Clerk to the Guardians, Union Offices, Greenwich.

MANCHESTER ROYAL INFIRMARY (BARNES CONVALESCENT HOSPITAL), Cheadle.—Clinical Assistant for six months. Board and lodging provided. Applications to the Chairman of the Medical Board, Royal Infirmary, Manchester.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon. Honorarium at the rate of £50 per annum, and board.

METROPOLITAN ASYLUMS BOARD.—Assistant Medical Officer, for the North-Western Fever Hospital, Haverstock-hill, N.W. Unmarried. Salary £160 the first year, £180 the second year, and £200 the third and subsequent years of service, with board, lodging, attendance, and washing. Applications to the Clerk to the Board, Norfolk-street, Strand, W.C.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.—Honorary Surgeon.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House Surgeon. Board, residence, and laundry provided.

SHEFFIELD ROYAL HOSPITAL.—Six Honorary Dental Surgeons.

ST. PETER'S HOSPITAL, Henrietta-street, Covent-garden, London, W.C.—House Surgeon for six months. Salary at the rate of £100 a year, with board, lodging, and washing.

SUNDERLAND AND NORTH DURHAM EYE INFIRMARY, Sunderland.—House Surgeon. Salary at the rate of £80 a year, out-door, rising to £90 after six months.

THE DENTAL HOSPITAL OF LONDON, Leicester-square, W.C.—Assistant Anæsthetist.

THE HOSPITAL FOR WOMEN, Soho-square, London.—Assistant House Physician (non-resident) for three months.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM, Morpeth.—Assistant Medical Officer, unmarried. Salary £120 per annum, increasing £10 yearly to £150, with furnished apartments, board, and lodging.

VICTORIA HOSPITAL, Folkestone.—House Surgeon. Salary £80 a year, rising £10 annually, with board, residence, and washing.

WEST SUSSEX ASYLUM.—Medical Superintendent. Salary £450 a year, with unfurnished house (the committee paying rates and taxes), light, washing, coals and vegetables. Applications to the Clerk to the Committee, West Pallant, Chichester, Sussex.

Births, Marriages, and Deaths.

BIRTHS.

ALEXANDER.—On Feb. 24th, at Faversham, the wife of Sydney R. Alexander, M.D. Lond., of a daughter.

BEVERLEY.—On Sunday, Feb. 23rd, 1896, at 13, Albion-road, Scarborough, the wife of W. H. Beverley, F.R.C.S. Edin., M.R.C.S. Eng., L.R.C.P. Lond., of a son.

PRESTON.—On Feb. 18th, at Portsdown-road, W., the wife of Theodore J. Preston, Fleet Surgeon R.N., of a son.

QUILL.—On Feb. 19th, at Rochester, the wife of Surgeon-Lieutenant-Colonel R. H. Quill, A.M.S., of a son.

REVELL.—On Feb. 27th, at 11, Granville-road, Southfields, Wandsworth, S.W., the wife of Hugh Stanley Revell, of a daughter.

RUFFER.—On Feb. 22nd, at York-terrace, London, N.W., the wife of Dr. M. Armand Ruffer, of a daughter.

SCOTT.—On Feb. 20th, at German-place, Brighton, the wife of Alfred Scott, M.R.C.S., of a daughter.

SMYTH.—On Feb. 24th, at Adelaide-road, Brockley, S.E., the wife of F. Sydney Smyth, F.R.C.S. Edin., of a daughter.

SUTTON.—On Feb. 19th, at Sidcup, the wife of C. R. Arnold Sutton, M.A., M.D. Cantab., of a son.

MARRIAGES.

CROUCH—SMITH.—On Feb. 18th, at St. Thomas's Church, Portman-square, by the Rev. Canon Page-Roberts and the Ven. Archdeacon Smith (uncle of the bride), Charles Percival Crouch, F.R.C.S. Eng., M.B. Lond., of Weston-super-Mare, to Annie Parbury, second daughter of Thomas Smith, F.R.C.S. Eng., of Stratford-place, W.

DEATHS.

ILOTT.—On Feb. 21st, at Beechfield, Bromley, Kent, James Williams Ilott, M.R.C.S., L.S.A., aged 80.

LAWSON.—On Feb. 22nd, at Mayfield-terrace, Edinburgh, Robert Lawson, M.D. Edin., F.R.S.E., Deputy-Commissioner in Lunacy.

LYNCH.—On Feb. 19th, at Sudbury, Suffolk, John Cox Lynch, surgeon, aged 69.

WEBB.—On Feb. 22nd, at Gloucester, Charles Louis Webb, M.R.C.S. Eng., L.S.A. Lond., aged 44.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (2nd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St Thomas's (3.30 P.M.), St. George's (1 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.). Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (3rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (4th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (5th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (6th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.).

SATURDAY (7th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (2nd).—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-square, W.C.).—8 P.M. Paper:—Dr. H. W. Marett Tims: The Origin of the Mammalian Teeth. Casual Communications:—Mr. Storer Bennett: An interesting point in the Treatment of Dental Irregularities.—Mr. C. D. Davis: An Artificial Nose attached by a Plate in the Palate.—Mr. G. Brunton: Some Experiments in Colouring Porcelain for Teeth and Gum Body.—Mr. E. Blain: A few Specimens of Dr. Martin's "Prothese Immediate."

SOCIETY OF ARTS.—8 P.M. Professor J. M. Thomson: The Chemistry of certain Metals and their Compounds used in Building, and the Changes produced in them by Air, Moisture, and Noxious Gases, &c. (Cantor Lecture.)

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. W. Watson Cheyne: The Objects and Limits of Operations for Cancer. (Lettsomian Lecture.)

TUESDAY (3rd).—SOCIETY OF ARTS.—8 P.M. Mr. G. Scott Elliot: The Commercial Prospects of English East Africa, and British Central Africa.

PATHOLOGICAL SOCIETY OF LONDON.—Papers:—Mr. J. H. Morgan: Malignant Tumour of Spermatic Cord.—Dr. Pitchford: Concretion in a Galactocele.—Mr. H. B. Robinson: (1) Diffuse Cystic Disease of Both Breasts; (2) Syphilitic Testis in a New-born Infant.—Dr. Snow: Insidious Marrow Infection in Mammary Carcinoma.—Dr. Hunter: Three Cases of Ulcerative Appendicitis. Card Specimens:—Dr. Parkes Weber: (1) Sarcoma of Both Kidneys of a Child; (2) Localised Fatty Change in Liver.—Mr. H. B. Robinson: Lymphangioma in Parotid Region.—Dr. Hunter: (1) Pyæmic Abscess of Liver: (2) Cancerous Thrombosis of Portal Veins.—Dr. Walsham: Tuberculous Ulceration of the Ileum with Perforation.

WEDNESDAY (4th).—BRITISH BALNEOLOGICAL AND CLIMATOLOGICAL SOCIETY (Limmer's Hotel, Conduit-street, W.).—3 P.M. Dr. H. McClure (Cromer): Some Factors in our Atmospheric Environment and their Relation to Health.—Dr. D. Kerr (Bath): Modern Improvements in British Balneological Practice.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens by Dr. Amand Routh, Dr. Galabin, and others. Adjourned Discussion on Mr. Harrison Cripp's paper on Abdominal Hysterectomy with Intraperitoneal Treatment of the Stump, with Notes of Eight Cases. Mr. Alban Doran: Cases of Fibroma of the Ovary and Ovarian Ligament removed by Operation, with a Series of After-histories of Cases reported in the "Transactions" since 1879.

SOCIETY OF ARTS.—8 P.M. Mr. A. A. C. Swinton: Roentgen's Photography of the Invisible.

THURSDAY (5th).—HARVEIAN SOCIETY (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8.30 P.M. Clinical Evening.

FRIDAY (6th).—WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich).—8.15 P.M. Clinical Evening:—Cases, Specimens, &c., by the President (Mr. E. Clarke), Drs. Collie, Henry, Joscelyne, and others.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital, W.).—8.30 P.M. Clinical Evening. Dr. Chapman: (1) Sporadic Cretinism; (2) Multiple Lipomata.—Mr. S. Edwards: (1) Nephrorraphy; (2) Nephrolithotomy.—Dr. Sutherland: (1) Braised Skin; (2) General Paralysis; (3) Supernumerary Nipple.—Mr. Keetley: Radical Cure of Hernia; (2) Wiring separated External Condyle.—Dr. A. L. Scott: Cardiac Bruit.—Mr. L. A. Bidwell: Salivary Fistula; (2) Gummata of Arms.

SATURDAY (7th).—MEDICAL SOCIETY OF LONDON.—7 P.M. Anniversary Dinner at the Whitehall Rooms, Hôtel Métropole.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (2nd).—LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 1 P.M., Mr. A. S. Morton: Affections of Eyelids.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Mr. G. Stoker: Impaired Movement of the Vocal Cords.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

TUESDAY (3rd).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Alcoholic Insanity, Insanity with Syphilis, Insanity with Organic Brain Disease.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

WEDNESDAY (4th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. H. Mackenzie: Tubercular Cavities.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Adenoma Sebaceum.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Turner: Neurological Cases.

LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. S. Morton: Retinal Affections.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: Psoriasis.

THURSDAY (5th).—ROYAL INSTITUTION.—3 P.M. Rev. W. Barry: Masters of Modern Thought—Voltaire.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Dr. Hale White: Clinical Lecture.—Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M. Dr. Allan Macfadyen and Mr. A. G. Foulerton: Qualitative Tests for Sugar and Acetone in Urine.

FRIDAY (6th).—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M., Prof. Crookshank: Actinomycosis and Glanders.

ROYAL INSTITUTION.—9 P.M. Mr. A. R. Binnie: The Tunnel under the Thames at Blackwall.

SATURDAY (7th).—ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Light.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Neuroses of the Skin.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s.*

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s.*; by post, 2*s.* 3*d.*

To be obtained on application to the Manager, accompanied by remittance.

CYCLING AND HÆMORRHOIDS.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to ask through the columns of THE LANCET whether patients suffering from hæmorrhoids or varicose veins of the legs, or both, should be advised to refrain from cycling?

I am, Sirs, yours faithfully,

Feb. 25th, 1896. GENERAL PRACTITIONER.

Spencer.—It is our rule, to which we can make no exceptions, never to recommend individual practitioners.

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"'THE LANCET' COMMISSION ON DANGEROUS PARAFFIN LAMPS."

WE have received the following letter:—

"Bogindollo, Forfar, N.B., 5 Feby., 1896.

"DEAR SIRS,—I glanced over your article on paraffin lamps but with its conclusions I do not agree. I enclose a cutting from *Food and Sanitation* in which you will see that the blame of all accidents is thrown on the dangerous oils brought to this country from America. I, myself, have tested paraffin by dipping lighted matches into it but in every case the match was extinguished. The article inclosed will show you that before the inquiry is complete your Commissioners will have to examine the oils used, particularly in England. It will not do to take for granted that the oils are safe because there has been some legislation on the subject.

"I am, yours truly,

"The Editors of THE LANCET." "D. KYDD, M.D."

We did not consider that anything was to be gained by printing the above, but contented ourselves with making the following reply:—

"Dr. Kydd of Forfar, N.B., does not agree with the conclusions of this Commission. He thinks the American oils are at fault, and supports his contention by adding that he has tested paraffin by dipping lighted matches into it, but in every case the match was extinguished!"

Upon this we have received the following letter:—

"Bogindollo, Forfar, N.B., 18 Feby., 1896.

"SIRS,—I got your paper containing the *garbled* extract of my letter to you. I would have expected more honesty from a paper of your *supposed* standing, but you are apparently stuffed with conceit of your own Commission. I should have thought the article I sent you might have carried some weight, but your *garbled extract* gives my letter a different meaning altogether.

"Yours, without respect,

"D. KYDD, M.D."

We are quite unable to see where we have wronged Dr. Kydd or what "garbling" has taken place. Perhaps if Dr. Kydd had obtained more familiarity with our work on the whole subject than was to be gained by "glancing over an article on paraffin lamps" he would have written more clearly, for what he meant, if our interpretation of his words was incorrect, we are quite at a loss to imagine.

A QUESTION OF ETHICS.

To the Editors of THE LANCET.

SIRS,—During K.'s absence from home in September, 1891, C. was sent for by a patient of his, a Mrs. G., and attended her until K.'s return, when C. submitted a list of the attendances, &c., to K. and gave up the case to him. K. in reply thanked C. for his "kindness in seeing Mrs. G.," and added that he "would not forget the matter of fees." Nothing more was heard from K., and C., hearing incidentally that the account had been paid, wrote a courteous letter to K. reminding him of the fact. Two months elapsed without a reply, and C., thinking that possibly the letter might have miscarried, sent a copy of the first letter by a messenger that could be trusted. K. has not replied to this. In consideration of such facts, what ought to be the future attitude of C. and others towards K.? C. has K.'s letter, and through a fortuitous circumstance has the very receipt given by K., and dated 26/2/92, covering the attendance during the time from Dec. 4th, 1890, to Dec. 24th, 1891. It is obvious that such a debt is more of the nature of a debt of honour than an ordinary one, which can be sent in occasionally as "account rendered." Moreover, K. no doubt does not know that C. was requested to continue his attendance, but *declined* as Mrs. G. was not his patient and he was merely acting as K.'s substitute. In this C. acted honourably. Has K. done so?

I am, Sirs, yours truly,

Feb. 24th, 1896. DIVERS EMETH.

*** It is difficult to understand K.'s behaviour or to justify it. K. should have offered to share the fees for attending Mrs. G. in his absence with C., especially after promising to do so. His failure to answer the letters is inexplicable. And until it is explained or regretted it is not easy to see how C. can resume neighbourly and friendly relations with him.—ED. L.

WHAT IS PUERPERAL FEVER?

To the Editors of THE LANCET.

SIRS,—Can you tell me the definition of "puerperal fever," i.e., the kind of fever after parturition which a medical man ought to certify as such to the local authority under the Infectious Diseases Notification Act?

I am, Sirs, yours truly,

Chatham House, Rotherham. WM. A. GARRARD.

*** It must be left for each man to judge for himself whether or not a case comes within what he has been educated to regard as "puerperal fever." There must be cases where a conscientious man anxious to do his duty will be uncertain how to act; on the other hand, there will be cases where there can be no question as to his duty—for instance, if he should have a series of cases in his practice when other medical men in the same district have none.—ED. L.

A RECOGNISED SCALE OF CHARGES.

To the Editors of THE LANCET.

SIRS,—I shall feel very much obliged if you will let me know if there is any recognised scale of charges for surgical and gynæcological operations and attendance in London, or in large towns where there are several surgeons, and, if so, where can I obtain copies? Perhaps you can tell me the usual charges for amputation of the breast, radical cure of hernia, excision of knee, osteotomy for genu valgum, and ovariotomy.

I am, Sirs, yours truly,

Feb. 12th, 1896. A. B. C.

*** There is no "recognised" scale of charges for surgical and other operations. Such fees vary with the locality, the means of the patient, and the professional status and experience of the operator, and are a matter of private arrangement between surgeon and patient. A. B. C. had better apply privately to some operating surgeon of his acquaintance for a detailed answer to the second part of his letter.—ED. L.

HEREDITARY ALCOHOLISM.

To the Editors of THE LANCET.

SIRS,—Professor Pellman, of the University of Bonn, is responsible for the following indictment of alcohol as a poison capable of engendering every kind of infamy and degradation among the offspring and descendants of a dipsomaniac. A woman named Ada Yurke, who was born in 1740, died about the commencement of the present century a victim to alcohol, after a life spent in thievery and vagabondage. Out of the 834 persons known to be descended from her Professor Pellman has been able to trace the career of no fewer than 709 individuals. Here are some of the particulars in outline: Born out of wedlock, 106; beggars, 142; pensioners of mendicity institutions, 64; prostitutes, 181; gaol-birds, 76, including 7 murderers. In seventy-five years these victims of alcohol have cost the state, in relief, prison charges, and damages, a sum calculated at upwards of 5,000,000 marks. Drink is, no doubt, blamable for many evils, but according to Professor Pellman's remarkable investigation it cannot be accused of diminishing the fecundity of the human species. On the contrary, from the data he affords it would seem as though the habitual consumption of alcohol in excessive quantities were capable of stimulating philoprogenitiveness to an alarming extent. I am inclined to think that a progeny numbering 834 adults in the space of 150 years, or thereabouts, is considerably above the average amongst non-alcoholic ancestors.—I am, Sirs, yours faithfully,

Feb. 24th, 1896. SCEPTICAL.

T. H.—We cannot publish our correspondent's very long letter. With some of what he says we are in accord, but the standard is, in our opinion, not too high, and the publication of a letter founded on that assumption would serve no good purpose.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 27th, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Feb. 21	29·71	S.W.	49	48	52	49	48	0·04	Raining
" 22	29·95	S.E.	38	36	76	46	37	0·09	Bright
" 23	30·29	N.E.	36	34	77	43	32	...	Hazy
" 24	30·45	N.E.	32	31	78	43	30	...	Hazy
" 25	30·33	E.	32	31	60	35	29	...	Overcast
" 26	30·06	N.E.	30	...	53	37	28	...	Overcast
" 27	30·22	N.	37	35	60	42	30	...	Overcast

During the week marked copies of the following newspapers have been received:—*Western Daily Mercury, Buxton Chronicle, Blackburn Telegraph, Cork Constitution, Brighton Gazette, Anglian Daily Times, Hereford Times, Leamington Spa Courier, Scotsman, Hull Daily News, North British Daily Mail, South Wales Daily News, Yorkshire Post, Birmingham Gazette, Lincolnshire Echo, Newcastle Chronicle, Southport Visitor, Bradford Observer, Times of India, North Star, Leeds Mercury, Freeman's Journal, Pioneer Mail, Western Morning News, Leicester Daily Post, Bristol Mercury, Liverpool Daily Post, Architect, Bath Chronicle, Sanitary Record, Builder, St. Bartholomew's Hospital Journal, Le Courrier de la Presse, Cape Times, Manchester Courier, Dundee Advertiser, Local Government Chronicle, Reading Mercury, Carmarthen Weekly Reporter, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, West Middlesex Standard, Ramsey Courier, Ramsey Weekly News, Mining Journal, Vegetarian, Gloucestershire Chronicle, General Advertiser, Beverley Recorder, Local Government Journal, Boston Guardian, Surrey Advertiser, Christian News, Liverpool Football Echo, Paddington and West London Mercury, County Council Times, Australasia Medical Gazette, Sunderland Herald, Evening Telegraph (Dundee), Rhyl Journal, City Press, &c., &c.*

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The Milroy Lectures

ON

THE VALUE OF ISOLATION AND ITS DIFFICULTIES.

Delivered before the Royal College of Physicians of London

BY EDWARD SEATON, M.D., F.R.C.P. LOND.,

MEDICAL OFFICER OF HEALTH OF THE ADMINISTRATIVE COUNTY OF SURREY; LECTURER ON PUBLIC HEALTH AT ST. THOMAS'S HOSPITAL; AND EXAMINER IN PUBLIC HEALTH AND STATE MEDICINE TO THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND THE UNIVERSITY OF LONDON.

LECTURE I.

Delivered on Feb. 27th, 1896.

MR. PRESIDENT AND GENTLEMEN,—Permit me to express my sense of the high honour conferred on me in having been appointed the Milroy Lecturer for this year. The fact that I have been requested to undertake the duties of an office which has been so ably filled by distinguished predecessors has impressed me with a feeling of serious responsibility. My natural desire to respond adequately to so honourable an invitation, which I felt to be more than I deserved, has led me to consider most carefully the choice of a subject worthy of such an occasion. To select from among the problems bearing upon public health or sanitary administration a subject on which I could speak with the authority that comes of considerable experience, and at the same time to choose one that would be of interest to the distinguished representatives of English medicine here before me, was a task of no small difficulty. After conference with my friend Dr. Thorne Thorne, the medical officer of the Local Government Board, and others I finally decided that the subject, "The Value of Isolation and its Difficulties," appertaining as it does to the every-day work of the sanitarian in this and other countries, could not fail to be of some special interest to you, whose opinion on matters affecting public health administration must always be of the first importance. Dr. Gavin Milroy, the founder of these lectures, laid stress upon the subject of contagious or infectious diseases regarded from the point of view of state medicine and public hygiene. In his pamphlet entitled "Suggestions for Consideration by the Council of the Royal College of Physicians, &c.," he clearly indicated the great importance which must necessarily attach to the work of competent and conscientious observers, whose duty it is to study and examine the natural history and varying behaviour of diseases which may come within the scope of preventive medicine. He recognised that the cultivation of exact knowledge in etiology and epidemiology is part of the ground-work on which practical measures for sanitary administration should be based. After continuous service as an officer of health for town and country districts for over twenty years I have become more and more impressed with the conviction that sanitary progress is largely dependent on the work of pathologists, clinical observers, and those who have made etiology their special study. Indeed, it is in the public interest that as officials we should insist at the present day on the value and importance of the physician's work in connexion with sanitary or public health administration. The labours of engineers and others, in improving water-supply, drainage, and house accommodation, need not be underestimated; they have done much to improve the standard of health conditions of modern life. But the place which such works occupy in a properly organised system of sanitary administration is perhaps better understood now than formerly. If we desire to make real and substantial progress in public health administration it is plain that we must resist a tendency to regard it mainly (if not exhaustively) from the point of view of physical science—i.e., the promotion and carrying out of structural work. We may readily concede the important share that from the time of ancient Rome to the present day great undertakings for water-supply and drainage have had in modifying the course of, and even preventing, epidemic disease. Still, we are bound to claim for medicine the superior position as the controlling influence in all matters relating to health administration, for has not experience shown over and over again that her researches and teachings cannot be ignored even for a time without disaster? I cannot, therefore, greatly err in availing myself of this opportunity which you have so graciously afforded me in choosing as a subject for these lectures a department of the health officer's work in which some progress has been made since 1872, and in which I do not hesitate to say that far more would have been accomplished if only medical knowledge in matters relating to the public health had been duly appreciated and acted upon.

Sir John Simon, in the volume which he published a few years ago, which might well have been called "The Sceptre of Hygeia," reviewed in the broad spirit of a statesman our English sanitary institutions in their course of development and in some of their political and social relations. After referring to the subject of isolation in "earliest times" and alluding to the Biblical commands respecting some of the purposes of isolation set forth in Deuteronomy and Leviticus and plainly expressed in passages of the Hebrew Pentateuch he traces mediæval medicine to the Tudor period, in which he perceives the dawn of science in its relation to the public health. In language picturesque and full of meaning he describes how in apparent connexion with the crusades (1100-1300) came the greater diffusion of leprosy in Europe, and how "with the now greatly extended presence of the disease there came a panic. Each leper was regarded not only with physical aversion as capable of causing to others a loathsome disease, but equally with superstitious horror as bearing the brand of a curse from heaven; and this double feeling rapidly led to a system not cruelly meant, but often most cruelly applied, under which lepers were set under strict social ban and were forced to endure their miserable remains of life apart from communication with their fellow men. History," he adds, "has few more pathetic passages than its record of religious services in which lepers were bidden to inhuman exile." Those were emphatically the times of the great pestilences which are historically famous as the epidemics of the Middle Ages, and the terror of which gradually led, from the middle of the fourteenth century onward, to the establishment of such quasi-military defences and precautions as are known by the name of quarantine. When the Black Death had reached south-eastern Europe at the end of 1346 and rapidly spread in parts of Italy, the city of Milan was said to have kept out the disease a long time by the exercise of extreme strictness as to its communications with other places. The example of Milan seems to have been followed elsewhere, at first only against the same terror, but afterwards more generally against the frequent danger of ordinary Levantine plague. Venice, with its large eastern commerce, was peculiarly exposed to the latter risk, and took the lead in enforcing regulations which at the time were of high repute in Europe.

The spirit which prompted and still prompts these quasi-military precautions, which have lasted through so many centuries even to the present day, was and is in reality, though not intentionally, exceedingly cruel. We need not search the pages of history to demonstrate this. The story of the cholera in Spain only a few years ago shows plainly enough how, under the influence of panic, the old spirit may at any time be revived and be as cruel in its manifestations as it ever was in the Middle Ages. Nothing but the steady education of public authorities by responsible advisers or officers, in medical as well as in other matters, will ever dispel it. It prevailed in England even in the time of the famous Dr. Richard Mead, physician to St. Thomas's Hospital. Indeed, in his celebrated "Discourse concerning Pestilential Contagion and the Methods to be used to Prevent it" Mead starts with the assumption that "quarantine" as carried on then and even now in parts of Europe was essential. How different a spirit is now in the ascendant is evidenced in a number of ways. Here let me distinctly state that by "quarantine" is meant the unscientific and consequently useless restrictions generally denoted by that name, restrictions which are even to the present day insisted upon by the otherwise enlightened Governments of some European countries. I would emphasise and dwell upon this point because our system of medical inspection combined with "coast isolation," if I may so term it, in distinction to "quarantine," is at the present day insisted upon as a very essential part of our defences against invasion by certain epidemic diseases. Within the last few weeks the Local Government Board has issued a

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volume full of interesting details and information on the subject of our defences against cholera. The necessity for isolation hospitals along our coast line, at the port sanitary districts in communication with foreign countries, for the reception of persons actually suffering from cholera and other dangerous infectious diseases brought to these shores is not only admitted but insisted upon. This recently-published volume is one of the most important that has been issued by our Government medical officers, for it relates to the progress which has already been accomplished in this, which is essentially our first line of defence, and to the difficulties of our partly national but chiefly local system of sanitary administration which stand in the way of its completion.

[The following part of the lecture was illustrated by maps and lantern slides from Dr. Armstrong's contribution on marine hygiene to Stevenson and Murphy's treatise.]

The medical officer of the Local Government Board (Dr. Thorne Thorne, C.B., F.R.S.), in the introduction which he gives to the reports and papers on the "Port and Riparian Sanitary Survey of England and Wales, 1893-94," tells us that "the development of our general port sanitary administration was not until recent years so advanced as that of our inland districts; and when the port survey was commenced it was found that in only *one-third out of a total of sixty* port sanitary districts could the general administration be regarded as satisfactory and efficient. Efficiency for the purposes under consideration means the appointment by the port authority of a competent and adequately remunerated officer of health and of a properly instructed sanitary inspector; the possession by that authority of a hospital for infectious disease and of means of disinfection; together with the adoption of the Infectious Disease Notification Act, 1889, and in some districts of special regulations under Sections 1, 2, and 5 of the Public Health Act, 1875. Above all, efficiency involves such administrative arrangements as shall ensure the regular and systematic inspection and supervision of shipping for general sanitary purposes as well as for the control of disease on board. In the *second third* of the port sanitary districts the administration was found in these respects to be lax and inefficient. Between these two extremes lie the *remaining third* of the port districts."

Dr. Barry in his report, which comprises the sum of investigations of the Medical Survey Staff of the Local Government Board, describes the port sanitary districts in the following manner:—"Certain of the Customs ports, or parts of such ports, have been from time to time constituted under special orders of the Local Government Board into port sanitary districts. This has been especially done where more than one of the existing sanitary authorities abutted upon the waters of an important harbour or port. Under these orders the great majority of the ports of England and Wales, having large foreign trade, have been included in one or other of the port sanitary districts. The duties and responsibilities of a port or riparian sanitary authority under the Public Health Act, 1875, and the Public Health (Ships) Act, 1885, as regards vessels and persons on shipboard, are practically identical with those entrusted to a local authority on shore with respect to hospitals and their inmates. These duties comprise:—(*a*) Measures for securing the wholesomeness of vessels and for preserving the health of persons on shipboard; (*b*) measures for preventing the introduction and spread of infectious diseases." The measures for preventing the introduction and spread of infectious diseases consist in the main of prompt notification of the existence of such disease, isolation of the actually infected persons in hospital, the disinfection of infected things, and the prohibition of the exposure of infected persons or of infected articles.

As regards hospital provision for infectious diseases Dr. Barry reports that "at the date of inspection forty-one port sanitary authorities had made provision, either by themselves or by arrangement with neighbouring authorities, for the isolation of shipboard infectious disease other than cholera. In nineteen districts there was at the date of inspection no provision available for the isolation of general infectious disease. Floating hospitals had been provided at the following ports, viz.: River Tyne, Harwich, Colchester, Cowes (unfurnished), Yarmouth and Totnes (unfurnished), Plymouth, Barnstaple, Milford (unfurnished), and Beaumaris. In thirty-one districts more or less efficient provision had been made on shore, from fully equipped hospitals at London and Weymouth 'to converted railway carriages' at New Shoreham. The nineteen port sanitary districts which at the date of inspection possessed no available means for the isolation of general infectious diseases were as follows:—River Blyth, Grimsby, Wells, Malden, Rochester, Faversham, Sandwich, Deal, Littlehamptom, Exeter, Teignmouth, Kingsbridge and Salcombe, Penzance, Hayle, Chepstow, Cardigan, Fleetwood, Lancaster, and Workington."

As regards the adoption of the Infectious Diseases Notification Act, 1889, there were no less than thirteen port sanitary districts without the provisions. Strange to say, among these was the port district of Bristol. The list included, also, Boston, Beaumaris, Cardigan, Carnarvon, Ipswich, Kingsbridge and Salcombe, Lancaster, Littlehampton, Portsmouth, Scilly Islands, Wisbech, and Workington.

Not only does this volume of "Reports and Papers" contain a vast amount of important information from the point of view of practical administration, but also it incidentally affords striking proof of the value of the survey itself, carried out as it was when this country was threatened with cholera invasion. The actual additions to our permanent defences against importation of infectious diseases generally provided at the expense of the various local sanitary district authorities, either whilst the survey was in progress or since its completion, show that up to the end of 1895 they form a considerable part of the whole of our system (some material or substantial improvement having been made in forty-four out of sixty cases). I would specially emphasise the statement that as regards "coast isolation" and the co-related measures of administration this provision is essentially necessary for other purposes besides cholera.

For the purpose of cholera (*vide* Dr. Thorne Thorne's introduction) "some means of hospital isolation was from the first found in forty-four out of the sixty ports, and in nine others it was provided after the inspector's visit. Ambulance boats were available in a number of the more important ports; provision existed in the great majority of the ports for the destruction by burning or the disinfection of clothing, &c.; and with but few exceptions some arrangements have been made as to the emptying of water-tanks on board ship, the provision of a proper water-supply, and the pumping of bilges. The arrangements for the medical inspection of vessels and of persons under the Board's orders were found to be satisfactory in all but five port districts; and it is only right to say that in certain of them, notably the ports of London, River Tyne, Hull and Goole, Southampton, Weymouth, Plymouth, Bristol, Cardiff, Barry and Cadoxton, Swansea, and Liverpool, the arrangements were not only highly satisfactory, but they were carried out with a devotion to duty on the part of many of the medical officers of health such as must be regarded as having largely contributed to the marked success with which imported cholera was controlled at nearly all English ports during 1892 and 1893."

From a study of the writings of my distinguished and learned colleague, Dr. Payne, I gather that in the case of plague similar isolation precautions would be necessary, taking into account, of course, the essentially different ways by which the two diseases, cholera and Oriental plague, are spread. Dr. Payne, in editing the account of the Great Plague of London in the year 1665 by William Boghurst, gives an impartial summing up of the contagionist and localist explanations of the plague. In favour of Hirsch's view he says there are facts that the disease came originally from the east and that a general succession of epidemics from east to west was often observed, and that its recession in the seventeenth and eighteenth centuries followed inversely the same law. In England, for instance, epidemics were often preceded by outbreaks in Holland. "In England, too, the incidence of the disease in seaport towns was far more severe than in those inland, and it is extraordinary how much more frequently and severely the east of England, which was in communication with the Continent, was affected than the west." He adds: "The infection of Yarmouth before London in the autumn of 1664 is a striking fact," so that it would appear that, as in the case of cholera so in that of Oriental plague and yellow fever, a coast isolation system is required in this country. The last-named disease, yellow fever, was brought to our shores at Swansea in September, 1865. It was in connexion with this outbreak and also in relation to the concurrent prevalence of cerebro-spinal meningitis in epidemic form in places about the Lower Vistula that, as it will be remembered, formal official declaration was made on the subject of contagion in its public health aspects and on quarantine, *vide* "Public Health Reports," John

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Simon, edited by Edward Seaton. So also it may be in the case of typhus fever, with regard to which I learned some interesting facts at New York in 1887. Within the last few weeks I have received a letter from Dr. J. S. Billings, expressing strong opinions upon the value of isolation in the case of this disease as exemplified by the experiences of New York city. In Australia and in the colonies also I have gathered from the verbal communications of those who know the facts that in the case of small-pox coast isolation has certainly been of great value. Again, in our own country small-pox and fevers need to be isolated when brought into our ports, whether by "coast-wise" or "foreign" traffic. So that, briefly stated, that part of quarantine which consists in intelligent isolation, kindly and thoughtfully carried out, is and must be as a matter of course part of a well-organised sanitary system in any country.

The celebrated "Discourse" by Dr. Mead, to which I referred at the outset of this lecture, comprises two "Cautions." The first relates to "the prevention of disease being brought into our island"—that is to say, to quarantine. "Near to our several ports there should be *lazzarettos* built in convenient places on little islands, if it can so be, for the reception of both men and goods which arrive from places suspected of infection." This is a subject that I need not dwell upon further, seeing that quarantine in this sense has already been abandoned for England. The second "Caution" relates to "the putting a stop to the disease spreading amongst us" when imported. This it is which is more immediately interesting to us at the present day when, by increased facilities of travel, it has become impossible to keep out those of the infectious diseases which have long periods of incubation even when cases are imported from distant parts of Europe and even other quarters of the globe. Furthermore, the teaching and work of at least two generations of men have been devoted strenuously and earnestly to the task of improving the conditions under which the people are housed and preventing the recurrence of nuisances injurious to health. So that it seems we can afford to let certain kinds of infectious disease be imported in our midst, if not with impunity, at any rate with infinitely less danger than in former days. It was in view of this possibility of the reinfection of England from a "miscarriage in the public care" that Mead gave his second "Caution." Let anyone study this part of the "Discourse" by the light which experience affords in dealing with the problems of infectious diseases and their methods of prevention, and he cannot fail to perceive that the practice which we have been endeavouring with much labour and in spite of many difficulties to establish during the last quarter of the present century is identical with that which is so forcibly indicated by this wise physician of the early part of the eighteenth century. Indeed, the principles laid down by Dr. Mead in 1720 are precisely those which I believe our College would not only approve, but desire to see enforced as far as possible by those who hold the responsible positions of medical officers of health. Is not then he who by precept did so much to create a better understanding of the spirit in which the dangers of pestilence ought to be met rightly named first among the fathers of modern preventive medicine? But before proceeding to discuss these principles and their application in practice let me take the opportunity of saying a few words on the use of the term "isolation" (in modern preventive medicine), which is obviously open to criticism. Surely there would seem to be something like a contradiction in terms in calling what frequently amounts to a "massing together" of a number of persons isolation. As used in the language of medical science this word implies the treatment of persons apart from the general population. This is different from the meaning of the term when used as in ordinary language it denotes individual seclusion. The imprisonment of the unfortunate occupant or occupants of dwellings infected with the plague in the Stuart period might be spoken of as isolation in the latter sense. At that time, we are told, by the orders of the Lord Mayor of London, published in 1665, houses were kept "shut up with a *large red cross* and '*Lord have mercy upon us*' on the door, and watchmen to attend day and night to prevent anyone except physicians, surgeons, nurses, watchers, &c., going in or out, and this to continue a month after everyone was dead or recovered." Such treatment, cruel in the extreme, does, of course, constitute isolation in one sense, but it is equivalent to quarantine. Nothing of the kind is intended by the word as used here. Isolation carried to such an extent would of course never be thought of at the present day. It would, in fact, speaking generally, be regarded as a public danger. It is interesting, however, that under the influence of the panic which a disease such as small-pox is able to create in populations where vaccination is coming to be systematically disregarded something which looks like a revival of the obsolete system seems to be for a time possible. A most valuable report, printed by order of the sanitary committee of the borough of Leicester, and prepared by Dr. Joseph Priestley, who was medical officer of health for that town during the small-pox epidemic of 1892-3—a report to which I shall have occasion to refer later—shows that an amount of surveillance, domestic intrusion, and interference with personal liberty can be submitted to, even in an English town at the present day, which bears some resemblance to the system which was possible at the time of the plague. The extent to which things have gone in this direction will be gathered from the following "Small-pox Quarantine Regulations," which are quoted from the official report just referred to. They read as follows:—"1. The patient is removed at once to the borough fever hospital and the house (room or rooms), bedding, &c., disinfected. 2. The inmates of the infected house and others who may have come into contact with the small-pox case are placed under quarantine observations at their own homes, being visited by the inspector daily for sixteen days. 3. Any case of illness amongst these quarantine persons is at once notified to the medical officer, who visits the case and removes it to the hospital if necessary. 4. The inmates of infected houses and others who may have been in contact with the small-pox case, if thought necessary, are strongly urged not to go to work for the whole or part of their quarantine period of fourteen or sixteen days, and during that time have been made such allowances as the sub-committee have thought fit, the sum advanced in each case being no more than sufficient to cover rent and maintenance. In the event of persons, however, being quarantined at the hospital, as all their food is found for them, only such allowance has been made as to cover the rent; whilst in the event of clothes, bedding, &c., being destroyed fresh ones have been provided. 5. Persons while under quarantine observation are allowed to go about and are encouraged to take walks in the country, but are advised not to enter anybody's house, any public institution or meeting, under penalty of forfeiting their monetary allowance. 6. Quarantine wards within the same curtilage as small-pox wards may, in the opinion of some, be a source of danger to their inmates. This consideration, together with the largeness of the numbers to be dealt with, has led to the course of watching the suspected people at their own homes. 7. Those inmates of infected houses who are willing are sent up to the hospital to have a disinfectant bath, and to have their clothes stoved, whilst their houses are fumigated with sulphur meanwhile. Those persons who refuse to go up to the hospital have disinfectants given them and are asked to have a disinfectant bath at home." (It will be noted that the word quarantine, which has been officially discarded, has curiously come into use again at Leicester.)

The term "isolation," so far as I intend to use it in connexion with English precautions, applies to the taking of dangerously infective cases "out of" the centres of population, whether it be to ships, as on parts of our coast and on the River Thames as at Long Reach; or to islands, as is done at New York; or to convalescent homes, as at Winchmore-hill; or to any favourably situated site in the open country near to a large manufacturing town, as at Bagthorpe, near Nottingham. Any one of these plans would be regarded as isolation in the sense of modern preventive medicine, for under such circumstances every hygienic advantage is secured to the sufferers as well as to the public, although so far as the sufferers are concerned company rather than solitude is frequently implied.

Mead introduces his second "Caution" by saying that there is "no evil in the world in which the great rule of *resisting the beginning* more properly takes place than in the present case" (he is dealing with the plague), "and yet it has unfortunately happened that the common steps formerly taken have had a direct tendency to hinder the putting this maxim in practice." For not only did the "shutting of all houses" prove ineffectual as a method of staying the development and spread of contagion, but the cruelty which this system involved or necessitated led to that which has always

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been the bane of preventive medicine—namely, the concealment, often the organised concealment, of dangerously infective disease. The first great principle, therefore, to be insisted on is that all preventive work should be carried out in the spirit of tender care for the sick persons and their friends. To quote Mead's words: "*No manner of compassion* and care should be wanting to the *diseased*, to whom, being now in clean and airy habitations, there would be with due cautions no great danger of giving attendance; all expenses should be paid by the public, and no charges ought to be thought great which are counterbalanced by the saving a nation from the greatest of calamities." Can we be said to have entirely succeeded in giving effect to this advice even at the present day? Undoubtedly great improvement has taken place in our methods of dealing with the beginnings of outbreaks or epidemics. During the twenty years or more which have elapsed since the Public Health Act became law great advance has been made in the formation of public opinion, by which alone a sound basis of administrative action can be secured. Yet there are still manifestations that under the influence of panic a line of action may be adopted by local authorities which savours rather of persecution. I have already referred to what has happened in a midland town. In another city north of the Tweed legislative proposals were drafted some fourteen years ago to enable the representative of the local sanitary authorities to forcibly make examinations for purposes of diagnosis by the authority of a local Act of Parliament. This innovation not unnaturally provoked the opposition of those who make the preservation of personal liberties their special care. The appointment of a special committee of the House of Commons to watch sanitary and police Bills followed as a matter of course. We may with satisfaction refer to the firm stand taken by our Government Medical Department on the vital question of abolishing quarantine, with its apparently useless and frequently cruel restrictions. This ought to make us all the more careful not to sanction procedures by municipal corporations, which are obviously cruel, even when they are adopted on grounds which seem plausible enough to enthusiastic representatives of local self government.

The spirit in which preventive medical work is carried out is of fundamental importance, for if it be not well understood beforehand that proper consideration will be given to the unfortunate sufferers and their friends, how can it reasonably be expected that the initial difficulties attending the prevention of epidemics by means of isolation would ever be overcome? The precautionary measure of primary importance is the cultivation of the art of diagnosis. In Mead's time "ignorant old women were generally appointed searchers in parishes to enquire what diseases people die of." There was at that time, of course, no proper recognition of the functions of educated and skilled physicians by the State. By slow degrees those functions have come to be more and more recognised. But even at the present day we are far from having attained to what might be considered practicable from the administrative point of view. Skilled medical knowledge has been held too cheap in this as in other matters affecting the public interests, and as a result much preventable illness prevails. It would be easy to show, were it necessary to do so, how even the most intelligent of the general public fail to understand the value of diagnosis, whether as regards the acquirement of the art or the serious consequences that may follow a mistaken diagnosis. Within the last few weeks a note of warning has been sounded in a special article in the *Times* on infectious diseases in London. The absolute freedom from typhus fever of the vast population of the metropolis since the early part of 1887, when small outbreaks occurred in different parts of London, is a subject of congratulation, and bears silent testimony to the value of past labours of many active sanitary authorities and energetic officers. At the same time, under the authority of Mr. Shirley Murphy, President of the Epidemiological Society, Londoners—and, indeed, the inhabitants of all large towns—are warned of the danger that may possibly arise from this very absence of opportunity for studying and teaching distinguishing features of typhus fever. The want of opportunity in this case arises from the entire absence of the disease, but in the case of scarlet fever, measles, rötheln and influenza, chicken-pox and small-pox, we have examples of diseases which are domiciled amongst us and the diagnosis of which, regarded from the public point of view, may at any moment be important. Mead advises that the office of diagnostician should "be committed to understanding and intelligent men" whose business should be to give notice of the existence of what was believed to be dangerous infective disease to magistrates, who should immediately call in skilful physicians to report. Then, if upon their report it appeared that the pestilential distemper had broken out among the inhabitants, they should without delay "order all the families in which the sickness is to be removed, the sick to different places from the sound, but the houses of both should be three or four miles out of the town." The removal of the "sound"—i.e., persons not actually ill, but who have lived in the infected dwelling—may be regarded as a "counsel of perfection" impossible of attainment under any conditions, but the first recommendation proves to be of the greatest practical utility. So that immediately a diagnosis is arrived at and confirmed measures are to be taken for the public safety, and there are consequences very materially affecting the victims of the attack. It is plain then that accuracy of diagnosis is the first, and therefore the most valuable, of all measures of prevention and that it constitutes the basis of our whole system of defence. How much more we are coming to recognise its importance has been shown by the action of our College in obtaining through the Local Government Board in 1889 increased facilities for the clinical study of the endemic infectious diseases, and, further, by the opportunities given by our College, along with its sister College and other public bodies, for improved methods of diagnosis by means of bacteriology. On these important topics I shall have to speak later, but before concluding this part of my lecture I must refer to another great principle laid down by Mead at the conclusion of the sentences above quoted. In advocating the removal of the sick he says "that the houses of both [meaning the occupants of infected houses, sick and sound] should be three or four miles out of the town"—in other words, the isolation should be true isolation and not that which is often made to pass muster as hospital isolation even at the present day. As a considerable part of my next lecture must necessarily be devoted to certain aspects of the extremely interesting problem of preventing small-pox I must insist on the importance of Mead's postulate—viz., that infectious diseases should be isolated outside towns.

I have hitherto confined myself mainly to a discussion of principles which may be said to have been laid down for our guidance nearly two centuries ago. I would now ask you to let me give a brief review of the prevailing conditions under which infectious diseases were treated early in the "seventies," at which time several of us, as officers of health, became officially responsible for their prevention and treatment. At that time the prevailing diseases of the zymotic class, of which sanitary authorities had to take account, were the same as now, except that typhus fever, although still existing, was gradually diminishing in London, Liverpool, and other great towns. Relapsing fever, which assumed epidemic proportions in 1869, had disappeared in 1870. Consequently the diseases generally prevailing at that time which may be said to come within the scope of the sanitary authorities were the same as now—viz., typhus fever (already becoming rare), small-pox, scarlet fever, typhoid fever, and diphtheria. Measles and whooping-cough, though accounting for a considerable share of mortality, then as now had not been, and indeed have never been, brought within the scope of measures of sanitary precaution, except so far as these concern sickness of all kinds. The maintenance of these two diseases at the same level, in spite of sanitary improvements, shows that we do not yet understand the method of their prevention. Typhus fever was fast diminishing under the influence of sanitation. The better conditions of housing and living, which in former generations had proved so powerful in depriving plagues of their virulence, were gradually bringing about the same result in the case of this disease. Small-pox was apparently uninfluenced then, as it appears to be now, by such measures, and in spite of our systematic vaccination of infants it was about to inflict a death-rate on the population—namely, the unvaccinated, and the *adult* unrevaccinated population—which for the first time for many years formed an appreciable part of the annual returns. Scarlet fever still prevailed in a virulent form. Whether the attack-rate of the disease was, comparing it with that now prevailing, much greater, it is obviously impossible to determine with certainty, inasmuch as nowhere at that time was there any reliable system of notification or registration of diseases.

One point of importance, however, in connexion with

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scarlet fever I would note in passing, and that is the change of the type of the disease which has been remarked by many clinical observers. My first experiences were gained under Sir George Buchanan, between 1866 and 1869, at the London Fever Hospital, and some few years later in the early "seventies" in Nottingham, where I had the supervision of scarlet fever. Cases of a very severe type were then not unfrequent, but after some ten years, in the "eighties," the cases in the same town seemed to be of a much milder character. Certainly of late years the disease reported as scarlet fever in some parts of the country, especially in the county of Surrey, seems by comparison of death and notification returns to be, so far as I can observe, of a mild type. Some years ago (about 1882) argument against the necessity of a notification system was founded on the probable influence of improved sanitation (using the term in a wide sense) on the change which had been noticed in the character of the disease. It was urged at that time that the disease would tend to become trivial and harmless as our improvements in the condition and housing of the population progressed. To this point I shall have to return.

Typhoid fever was coming to be regarded by experts in the light of an entirely preventable disease owing chiefly to the forcible demonstration and teaching of the Medical Department of the Local Government Board, whose observations on this subject were summed up in Simon's essay on Filth Diseases. In the case of this disease, as in that of Asiatic cholera, isolation was considered then, as it is indeed now, to be of secondary importance. The chief protection against these diseases was believed to be the safeguarding of water-supplies, the prevention of food infection, &c. Diphtheria, for what reason we cannot explain, had somehow come to be accounted a "filth disease," like typhoid fever, and for several years the action taken by sanitary authorities was based on the assumption that this disease was also amenable to measures of cleanliness and that its very existence was an indication of some gross neglect on the part of the sanitary authorities or individuals. The evidence on which this assumption was founded escaped criticism, and, consequently, scientific inquiry and observation gave place to so-called "practical" measures. But however strong the evidence was with regard to both typhus fever and typhoid fever and their dependence upon what were then somewhat narrowly called "sanitary conditions," the evidence connecting diphtheria with such conditions has been of a very different class.

Hospitals for infectious diseases in England dated from nearly a century before 1872. At that time they had begun to supersede the old parish pest-house, which had till then formed the only special provision for the treatment of the infectious sick. The original design of these hospitals was to promote the recovery of the individual poor patient for whom accommodation was necessary; indeed, the name "house of recovery" was a frequent synonym for infectious diseases hospital at the period when the necessity of such an institution was first recognised. But it followed as a matter of course that the advantages to be obtained by the district possessing a hospital soon became evident, and from a very early period of their history infectious diseases hospitals have been advocated on the ground of their protecting the household, and consequently the public, against the spread of infection. About the time of which I am speaking there were, however, only two special infectious hospitals in the metropolis, and hardly any of the large towns had any means at all of isolating fevers or small-pox in separate buildings either within or without the precincts of the town. In London there were the old Small-pox and Vaccination Hospital (which had been removed to Highgate, where it now is) and the Fever Hospital (now used for private cases) in the Liverpool-road, Islington. Both these hospitals were supported by voluntary contributions and they were in no sense municipal institutions. The former received severe cases of small-pox and the latter severe cases of typhus, enteric, and scarlet fever. These diseases were also received into the airy and spacious wards of the general hospitals; but the great majority of the cases, especially those of a mild character, which were recognised to be important from the public health point of view, were treated at their homes. A large part of the practice of the dispensaries supported by voluntary contributions consisted in attending the infectious sick. Besides these, amongst the classes above those who obtained entirely gratuitous medical relief were vast numbers who, if infectious disease occurred in their households, were quite unable to isolate it sufficiently at home or to procure suitable means of isolation elsewhere. At that time infectious fevers amongst the poor and amongst the independent wage-earning classes may be said to have run their course almost unchecked, so far as effectual isolation is capable of controlling them. It was then that the Asylums Board was constituted under the Metropolitan Poor Act of 1867. Its purpose was to establish in the metropolis asylums for the sick, insane, and other classes of the poor. The name of the Act as well as the use of the term asylums indicates the intention of the Legislature at the time. It was in accordance with the view already expressed as to the *raison d'être* of a hospital. It was mainly to relieve the workhouses of the infectious sick and the insane that these asylums were required. As far as infectious diseases were concerned, there seems to have been no wider intention in their establishment than that of providing separate means of isolation for cases which could not be effectually isolated within the workhouse walls. The constitution of the Board was, as it is now, almost entirely representative of Poor-law authorities. Thus there was created for London a board which was destined to have important sanitary functions, but which was not representative of the sanitary authorities. The vestries, which in all other respects were the sanitary authorities, have at various times been criticised for not having taken independent action for the provision of hospitals, but few who have studied the question and have had practical experience of the difficulties of hospital provision and administration, or who are acquainted with the boundaries of London parishes and the intricacies arising therefrom, can doubt that this work at any rate was far better in the hands of a central authority, whether such central authority is representative of the Poor-law or of public health administration in a large sense.

To complete this brief review of the state of affairs about a quarter of a century ago I must now refer to what was found in the seventeen large towns of England of which the Registrar-General at that time gave weekly statistics. The population of these towns in the aggregate amounted to something like three millions, about equal to that of the metropolis as a whole. The great pandemic wave of small-pox which spread over England in 1871–72 had proved that our vaccination system alone, although absolutely protective of the young, was insufficient to protect the population as a whole against what might be termed epidemic diffusion of the disease, by which I would mean such an extension of the disease as would appreciably affect the general death-rate of these seventeen large towns for as long a period as a year, just as they were affected by the influenza epidemics of 1892–3, and by measles epidemics at various times. Not only the absence of systematic revaccination, but the absence even of facilities for carrying it out afforded by our then existing system of public health administration, made the want of isolation specially conspicuous (although it may be doubted whether revaccination, unless thoroughly systematic or in a sense compulsory, would have been entirely successful). The fact that the adult population suffered largely under the visitation (which as measured by its effect on the death-rates was severely felt, like the influenza epidemic of recent date), together with the horror of the disease and the interference with trade which it involved, greatly added to the panic and the loss of property that followed. The way in which the disease was seen to spread by the sometimes unavoidable and sometimes careless exposure of infected persons and things at public-houses, laundries, provision shops, &c., as well as in the workhouses and common lodging houses, forced attention to the question of isolation. This had hitherto been kept in the background by the habit of relying wholly on vaccination as the great preventive measure against small-pox. Under the influence of panic small-pox hospitals, so called, were erected, but this did not take place anywhere until the disease had got firm hold of the population, and consequently they were of little or no use in preventing epidemic diffusion. It was of such a kind of hospital that Dr. Thorne Thorne wrote as follows in a well-known Government report of 1882: "It is often not ready for occupation until the immediate cause of its erection has passed by; it provides accommodation of a very indifferent sort; it fails almost without exception to meet the permanent requirements of a district, even when in amount it turns out to be more than the district needs, and thus the object of the hospital as a part of the sanitary defences of a district is often obtained in a very imperfect manner and at a needlessly large cost."

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It often happened that with small-pox—that most infectious or contagious of diseases—such accommodation had to be provided on some open space well within the precincts of the town, and which could not be regarded, therefore, as *true isolation*. Mead's view, so far as it relates to the sufferers being removed a distance of three or four miles out of the town, was, perhaps, more practicable when the whole population of the country was much less and when towns were very much smaller in size. The policy, indeed, of dealing with so highly contagious a disease as small-pox by the segregation of large numbers of cases within the precincts of any large town had from the beginning been regarded with distrust and suspicion by eminent and experienced Fellows of this College, some of whom gave their opinions in evidence at a well-known trial in the Law Courts about five-and-twenty years ago. Later, Dr. Bridges, the Local Government Board adviser on medical Poor-law matters of the metropolis, and others whose experience was of the highest value, gave evidence also before a Select Committee of the House of Commons on the Hampstead Fever and Small-pox Hospital in 1875. How far such distrust and suspicion were found to be justified by subsequent events belongs to the history of the following decade. I will, therefore, conclude this lecture, which deals mainly with the subject of the beginnings of isolation regarded from the modern point of view.

LECTURE II.

Delivered on March 3rd, 1896.

MR. PRESIDENT AND GENTLEMEN,—The Public Health Act of 1872 marked a new era in sanitary administration. Already the reports of the Medical Department of the Privy Council had shown that medical advice and services continuously rendered might reasonably be expected to enable our local sanitary authorities to cope with preventable disease in a manner profitable not only as regards a reduction of the death-rate, but with an immediate saving of public expense, such as that which is always entailed by the presence of epidemic diseases. The promise of such results was found to be amply realised at the end of ten years. During the decade 1873–83 there were in progress, more or less rapid, in all the towns of England important works of public hygiene, such as those concerned with the housing of the artisan classes, improvement of water-supply, &c. There were also in some towns, under the powers of the Public Health Acts of 1872 and 1875, medical officers appointed who, though they might be hospital consultants, were to be independent of private medical practice. Such appointments probably contributed more than anything else to a change in public opinion respecting the preventability of epidemics. The Public Health Act of 1875 contemplated the possibility of some interference with the progress of infectious diseases not only by the appointment of medical officers, the establishment of hospitals, means of disinfection, &c., but by the penal clauses which relate to the exposure of infected persons, clothing, &c. But to those whose business it was to give much thought to the matter, and who were constantly considering the complex social conditions which contributed to the development of epidemics, it became evident that a system of compulsory notification of diseases to some recognised representative of the public sanitary authority was absolutely essential if preventive medical work was to be carried on with a reasonable chance of success. That sanitary authorities should be expected to provide, at the public expense, means of isolation for infectious diseases, as to the occurrence or prevalence of which they were kept in almost complete ignorance, was so utterly unreasonable that prejudice and custom, however strongly established, were bound to give way in the end. A medical officer of health might be called upon suddenly to provide means of isolation for a case of supposed typhus fever or small-pox without having any knowledge as to whether the case was a solitary one or whether there were other cases the isolation of which was far more important from a public point of view. The great majority of the cases of scarlet fever reported for isolation belonged to the pauper class, and although the treatment of such cases in separate buildings at the public expense was, to some extent, a benefit, it seemed utterly inconsistent with any theory of prevention that the great mass of the population (non-paupers), living in small houses or tenements, should not even be cautioned with regard to the dangers of infection or informed of the advantages of isolation. Compulsory or systematic notification, independent of class distinctions, seemed to be absolutely essential. These views by degrees permeated the sanitary authorities of several large towns in the north and the midlands, and as a result the Local Notification Acts of Bolton, Nottingham, Huddersfield, Leicester, and other important towns in England were introduced. The adoption of these Acts was accompanied, as might be expected, with a considerable amount of friction, owing to the novelty of their provisions. It was materially assisted, however, by the experience of Edinburgh, where the system had been adopted under the advice of Dr. (now Sir Henry) Littlejohn. It would be foreign to the subject of these lectures were I to enter upon the history of the Compulsory Notification Act or to discuss the interesting subject of its bearing on the prevention of disease in its wider aspects. The system already applies to about five-sixths of the total population and has now been in operation for several years in many large towns of England. During that time it has become a matter of general knowledge that notification serves other useful purposes besides that of securing or facilitating the isolation of dangerously infective cases; in fact, it is coming to be recognised that it is, as was intended from the first, an essential part of a sound basis of local sanitary administration. It is at the same time well to recall the fact that nothing but the strong claim of practical utility was deemed sufficient to establish a system which involved serious alteration in the long-established rules which govern the practice of our profession.

I would in this place refer incidentally to an interesting paper quite recently read at the Royal Statistical Society by my friend and colleague Dr. Newsholme, the distinguished health officer of Brighton and the Milroy Lecturer for 1895. In a sketch of the history of the attempts to establish a national system of registration or notification of infectious diseases he does not specially refer to the important chapter of events on which I have just touched, and to which the present advanced condition of things is largely due. But for the proceedings during those ten years in certain large towns which were of far more than local importance, and which it is only fair to say were mainly due to the efforts of several medical officers of health, the subject of national notification and registration of sickness would have been very much where it was in 1872. It had already then been made the subject for essays by able and accomplished physicians, acting sometimes as a collective investigation committee, but it could in no sense be considered to have formed part of any system of administration, local or national. The way in which this Act has come into operation has indeed furnished an excellent example of the use of tentative methods in the process of developments of legislation. It is one of many examples also of the advantages attendant upon developing the spirit of local self-government in large communities, and it shows what an important influence the education of the people in matters relating to the public health exercises not only in the adoption but in the carrying out of law. Preventive medicine is, of course, not to be limited in its scope by so-called zymotic diseases, the annual death-rate from the zymotic class being about 3000 per million living; that from the tuberculous class is also about 3000 and that from the bronchitis and pneumonia class is about another 3000 as well, while the mortality caused by rheumatism is probably, as Dr. Newsholme says, much understated by the 433 per million officially ascribed to rheumatic fever, endocarditis, and pericarditis. But we have to remember that as yet we have no practicable means even to suggest for the prevention of many of these diseases. True, that improved knowledge of their natural history and causation, such as would gradually accumulate from the inquiries of statisticians, would in the end prepare the way for effective preventive measures. It is not likely, however, that the general kind of notification advocated in the paper to which I refer could lead to any immediate result; while, on the other hand, it would involve very heavy expenses, for the medical profession, already overburdened, as it undoubtedly is at present, in the matter of certificates and other voluntary or unremunerative work, could not reasonably be expected to add still further to its labours in this direction. If I may be allowed to make the suggestion here, progress in the future will probably be best carried out on the same lines as that of the past—namely, by the tentative methods of which I have spoken and for which we are so

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deeply indebted to the authorities of our large towns in the midlands and the north. One point of great practical importance not mentioned by Dr. Newsholme in relation to the scope of preventive medicine is that correctness of diagnosis of those cases in *which preventive measures are administratively possible* is, judging from analogy, likely to be promoted rather than otherwise by an extension of the notification system.

But to return to the immediate subject of this lecture. It was already about the year 1881 becoming evident that systematic notification was essential to render systems of isolation effectual in preventing epidemic diffusion of small-pox and some other diseases, when two very important medical inquiries were undertaken by the Medical Department of the Local Government Board. In one of these Dr. Thorne Thorne was mainly concerned and in the other Mr. W. H. Power. These reports, published with an introduction by the experienced physician and medical officer, Dr. (afterwards Sir George) Buchanan, form one of the most interesting of the whole series of volumes, the contents of which constitute so large a part of the history of preventive medicine, not only in this country, but abroad. Dr. Thorne Thorne's inquiry occupied many months of the years 1880–81, and his report occupies the greater part of the volume. He inspected about seventy hospitals in use by urban, rural, and port sanitary authorities respectively, "of every variety of locality, size, and construction; some thoughtfully devised on a scale adapted to the needs of their districts, and reckoned by those who had provided them as among the most valuable sanitary defences of those districts; others ill-placed, or on an altogether insufficient scale, or badly planned, or doing duty in default of better though of flimsy material and hurried construction." As to the subject of isolation from what I may term the social point of view, and as to the methods of construction of hospitals, I shall have much to say later. And there, again, I shall have occasion to refer to Dr. Thorne Thorne's observations as well as those of medical officers of very long experience. At this stage I would simply record his strongly expressed opinion as to the paramount importance of early isolation of initial cases. This is best given in the form of a statement quoted at page 9 of the report of the Royal Commission appointed to inquire respecting small-pox and fever hospitals published in 1882.

"Answer.—1028. ..... I should occupy you for hours in telling you of instances in which epidemics have evidently been prevented by the isolation of first cases of infectious disease."

The typical instances are those in which contrast is made between the cases where infection has at once been stopped by removal to a hospital, and where, under exactly similar circumstances, a contrary course has led to a spread of the disease. The whole tendency of the observations by public health officials has been for many years in this direction. Indeed, it may be said that all but the most sluggish or obtuse of sanitary authorities have long ago seen the desirability of promoting isolation. Far greater progress would long since have been made had it not been for the many practical difficulties that have arisen in connexion with the establishment of hospitals for this purpose. Of one of the principal of these I have now to speak. "When Dr. Thorne's inquiry was planned," says Dr. Buchanan, "it was not intended that it should extend to the metropolis, and in the end, beyond a little contribution from the experiences of the London Fever Hospital, his report dealt with the provinces only. This limitation was made partly from the reason that the circumstances of London were expected to be so intricate that the influence of hospitals upon population was especially difficult to recognise, partly from the reason that the principal infectious disease hospitals of London were Poor-law institutions." "At the end of 1880, when Dr. Thorne's inquiry was in an advanced state, representations were received by the Board that cases of small-pox were occurring in an exceptional fashion round certain of the Metropolitan Asylums Board hospitals, and it was felt that Dr. Thorne's experience on this subject, derived from hospitals in the provinces, ought not, without further inquiry, to be accepted as representing the whole truth for hospitals in London. Accordingly, Mr. Power was associated with Dr. Thorne for the particular purpose of examining the facts in the neighbourhood of Fulham." With regard to a special outburst of small-pox that occurred in 1891 Mr. Power had an opportunity of studying, with "very notable exactness and at the earliest possible moment, all the circumstances of one of those local epidemics which have been supposed to be connected with the proximity of hospitals. The outburst affected the parishes of Chelsea, Fulham, and Kensington, near the junction of which the Small-pox Hospital is situated. These parishes had before been practically free from small-pox, but in the course of a fortnight fifty-six houses in them had been invaded by the disease, and some curious further limitations, both in place and time, became apparent." In the end, after studying the phenomena of the 1881 epidemic and the distribution of small-pox around the hospital in each of the epidemic periods during which the hospital had been used, Mr. Power announced the following results of his inquiry with regard to the Fulham Hospital:—

"There has been in each epidemic period a successive incidence of small-pox at houses in the neighbourhood of the hospital, as compared with more distant houses in Chelsea, Fulham, and Kensington.

"The percentage of houses invaded in the neighbourhood of the hospital has become gradually smaller as the distance of the houses from the hospital has increased. This gradation has been very exact and very constant.

"Houses upon the chief lines of human intercourse with the hospital have not suffered more than houses lying in other directions from the hospital.

"In point of time there has been a very marked relation between the varying use of the hospital and the manifestations of excessive small-pox in the neighbourhood. This relation has not shown itself when the use of the hospital has been for convalescents only.

"The appearance of excessive small-pox in houses around the hospital has never been delayed until the hospital has become full or nearly full. It has been always most remarkable at a time when admissions to the hospitals were beginning to increase rapidly.

"On comparison of different epidemics, an almost constant ratio is observed between the amount of the hospital operations and the degree of excess of small-pox in the neighbourhood. The machinery of the hospital administration, with inclusion of defects in that machinery, does not account for the peculiarity of small-pox incidence within the three parishes of Chelsea, Fulham, and Kensington since the establishment of the hospital.

"There must have been some condition or conditions operating to produce the observed distribution of small-pox around the hospital that have pertained to the hospital as such, and that have been in excess of the conditions for small-pox extension as usually recognised."

On the presentation of Mr. Power's report it was seen to be of great importance that his facts and inferences should be without loss of time subjected to special skilled examination. A Royal Commission was therefore appointed to inquire into the whole subject of hospital accommodation for fever and small-pox cases in the metropolis. As I have quoted *in extenso* the conclusions arrived at by Mr. Power, as set forth and adopted by Sir George Buchanan, it is desirable that I should also give in this place the section of the report of the Royal Commission just referred to (published in 1882), dealing with the most important of those conclusions. Passages 30 and 31 of the report are as follows:—

"One point appears to have made so much impression on several important witnesses that it should be specially noticed. Mr. Power himself clearly perceives and fully admits that the graduated distribution of disease around the hospital, which is so remarkably illustrated in his report, is as explicable by personal communication as by atmospheric dissemination. '*With such a hypothesis*,' he says (meaning that of dissemination), '*equally as with the hypothesis of conveyance by human movements, the gradation of hospital influence from centre to periphery would be in complete accordance.*' The admission is so material that it ought to be developed. Let us replace the image of a wave, which is suggestive of one hypothesis, by an image equally appropriate but adjusted to the other. Instead of an expanding wave let us imagine a number of converging and diverging lines of inflection. It is plain, in the first place, that along these lines—the lines of hospital communication—the in-coming and out-going of persons and things would offer more occasion of disease, wherever these persons and things were likely to pass in their route, and by consequence more in the immediate neighbourhood of the hospital than farther off. But, disregarding this fact of propinquity, and supposing that one quarter of a mile is as fruitful in occasions of contact with the carrier of infection as another, let us imagine that on the different lines of communication which radiate to and from the hospital infection is shed equably along the whole of their course, and is represented on a diagram by black lines, varying in breadth according to the amount of infection which has been dispersed, and in length according to the distance along which it is carried. It does not need the actual inspection of such a diagram to perceive that the effect of these lines in blackening each successive hospital ring will constantly increase as they close in on the centre, or, in other words, that the converging in-comings and out-goings of the hospital would produce exactly that 'graduated intensity of infection,' from which, prior to reflection, we are tempted to infer an expanding wave. The argument is capable of arithmetical statement, and it would be easy, if it were worth while, so to exhibit it."

It will be seen, therefore, upon the all-important question of the atmospheric dissemination that the Commission—on which there sat the following eminent members of our profession: Sir James Paget, Sir Rutherford Alcock, Dr. Burdon Sanderson, Sir William Broadbent, Mr. Jonathan Hutchinson, and Dr. Alfred Carpenter—did not see their way to a positive conclusion. In the same Commission they had taken a considerable amount of evidence on the subject of the

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diffusion or dissemination of small-pox in consequence of the utter absence of any system of notification in the metropolis. Personally, I would dwell upon the great significance of this absence of essential knowledge, for at the time at which these inquiries were made I was myself officially fully cognisant of the difficulties of ascertaining actual facts as to the prevalence of small-pox attacks even in a provincial town. Everyone who has lived in the provinces, even in a large manufacturing town, knows well enough that the circumstances are very much less intricate than in London. I have had considerable official experience of both, and I can speak emphatically upon this point. (*Vide* especially Transactions of the Society of Medical Officers of Health, 1884–85. Discussion on Small-pox Hospitals, pp. 110, 116.)

While fully recognising the merits of the famous inquiry of 1881, the following points must I think, still be left open to question: 1. The possibility, under the circumstances of 1881, of absolutely excluding the other chances of infection in the case of persons attacked in the month of January. (Several of these, it will be remembered, were outside the half-mile radius; it would certainly have been said before 1881 that there was not even the most remote possibility of their infection at such a distance. 2. Assuming the possibility of distal (i.e., long distance) infection, what are the probabilities of such a method of infection, as compared with the probabilities of proximal (i.e., close distance) infection (meaning by the latter term the infection which takes place in ordinary personal communications)? 3. Is "distal infection" a dominant or controlling factor in the spread of small-pox? As to the last point, it would seem from the publications which have been chiefly in evidence of late years that this was seriously contended for. I will not attempt to follow out this point argumentatively; it seems to me to lead to conclusions which are absolutely absurd.

With regard to the first point I have already expressed my own views. As to the probability of distal infection it rests with those who strongly uphold it to indicate its proportions. If we were to judge from the frequency with which this source of possible danger is referred to in the official medical prints we might be led to conclusions which are very erroneous. It is quite remarkable how, in subjects relating to the public health, an account of an interesting and exceptional outbreak described or referred to over and over again in the officially recognised sources of information gives rise to the impression that the occurrence of such outbreaks is common. I could offer many illustrations of this fact derived from my experience as an examiner. We must, therefore, be very careful to distinguish a belief which is due to an impression from that which is the result of a careful study of the facts upon which the statement has been based.

I turn now to the experience of the last decade, which seems to be the best corrective of any false impressions which might arise on this vitally important subject. The recommendation of the Commission in 1882 might be given in their words:—

> "We think it right thus to report the chief grounds for accepting or rejecting the theory of distant atmospheric dissemination of small-pox. But we feel that so long as it is not proved that 'personal communication' is adequate to the explanation of the whole spread of small-pox, and so long as a distant atmospheric dissemination is not shown to be, in the highest degree, improbable, so long it is essential that in the construction and management of small-pox hospitals both sources of danger should be, with the utmost care, guarded against. And in this conclusion we are more than supported by the opinions of witnesses of the greatest authority, including Sir William Jenner, Sir William Gull, Sir James Risdon Bennett, and Sir John Simon."

Those recommendations have led to the adoption of the present system of isolating small-pox, that is to say, by the taking of the cases, as they occur, "out of" the population, and removing them to a distance of several miles to a spot where *true isolation* could be carried out. Looking back upon the state of things before 1886, at which time this system came into operation, and comparing it with what has happened since during the ten years which have elapsed we have, so far as facts and figures go, one of the most remarkable instances on record of the efficacy of any medical preventive measure. I would repeat the words "so far as facts and figures go," for we do not need to go beyond the history of small-pox itself to find illustrations of conclusions which, as subsequent events proved, were too hastily adopted. Still, as far as we are warranted in basing any opinions at all on mortality statistics, this would certainly seem to be one of the most remarkable pieces of evidence which has ever yet been adduced in support of the efficacy of any preventive measure. For even if it be argued that distal atmospheric dissemination played a dominant, or even an important, part in the maintenance of small-pox in London in such proportions as caused it to be spoken of as epidemic we have now the incontrovertible fact that a hospital segregation of cases at a distance has resulted, for a time at least, in a comparative extinction of the disease. All questions of distant atmospheric dissemination apart, does it not seem as if the whole subject resolved itself into a question of notification with *true isolation*—that is, the removal of cases, as Mead advised nearly two centuries ago, to a distance of some few miles out of the town? The success of complete isolation of small-pox has been very striking. Previously to the year 1886, when hospital ships were established several miles down the river, the epidemics, as they were termed, occurred with regularity every three or four years or oftener. These experiences extended back for half a century or so, the deaths occurring on each occasion being from 1000 to 8000. In the intervening periods the mortality varied, but hardly ever amounted to less than several hundred deaths per annum. In 1885 the deaths were 1419; in the following year, when the removal to the hospital ships had taken place, it suddenly sank to 24, the lowest then on record, then to 9, finally to zero, not a single death occurring in 1889. After that a slight rise took place, leading to an outbreak in 1893, relatively considerable, but trifling as compared with the years previous to 1886. The whole period may be shown in a tabular form:—

Year.	Deaths.	Year.	Deaths.
1885	1419	1891	8
1886	24	1892	41
1887	9	1893	206
1888	9	1894	89
1889	0	1895	55
1890	4		

On this subject I may quote the following passage from the *Times* of Jan. 8th, 1896, on Infectious Diseases in London: "The revival during the last four years seems to be attributable to the spread of anti-vaccination and to the institution of philanthropic shelters which attract numbers of tramps to London every winter and herd them together under conditions most favourable to the spread of disease. The fact that the outbreaks attained no larger proportions indicates the efficiency of the present isolation system in controlling them; and though the previous immunity was not wholly due to this cause, since small-pox declined generally in England after 1885, thorough isolation must be credited with having reduced the death-rate from that disease in London to a point below that of the whole country, whereas it used to be much higher." And I may further add that the decline throughout the whole country has itself been ascribed to this diminution in London, which was for many years regarded as the chief nursery of small-pox. At the same time that this remarkable diminution in the death-rate has taken place the proportion of recoveries of cases has markedly increased in the Asylums Board hospitals. The synchronism between the adoption of a new system of isolation and the drop in the small-pox death-rate may just possibly prove another example of the strange vagaries in the behaviour of this disease. If so, the coincidence will be still more extraordinary than that which some thirty years ago marked a sequence of events in a neighbouring country. There the disappearance of small-pox immediately followed a change in the system of vaccination and led to conclusions which longer experience showed to be erroneous. But if, from the very remarkable experience afforded by the past ten years, we come to the conclusion that thorough isolation and the disappearance of epidemic diffusion stand in the relation of cause and effect, we are forced to recognise an influence of so potent a character as to rank second only to vaccination itself. A small-pox hospital, properly situated, must surely be considered a boon and an essential auxiliary to vaccination in a country where the protection of revaccination, though freely offered, is not systematically enforced. I am, of course, aware that there are those whose opinions are entitled to the greatest respect who think differently. They would contend that the State has furnished in vaccination and the opportunity of revaccination the best preventive measures, and that the establishment of small-pox hospitals in an unnecessary tax upon the community generally. To discuss this question would be to enter into a somewhat controversial topic; I would therefore refrain from saying anything more at present. It is my duty to bring to your notice the facts relating to the

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value of isolation. This would appear to be very conspicuously shown in the case I have submitted to you, and if the lesson taught by London experience confirms that of the large towns of England we are bound to do what we can to minimise the difficulties attending isolation. Let it not be supposed, however, that the change in the system of isolation was the only factor to be credited with the rapid diminution in the small-pox death-rate. At the same time there was taking place an equally essential change in our methods of sanitary administration. I have already called attention in an earlier part of this lecture to the notification and isolation of cases of small-pox which at Leicester have been relied on for the prevention of epidemic diffusion from single cases to a much larger extent than elsewhere. In view of these lectures I have lately studied again the Leicester official reports — viz., those by Dr. Johnstone (who was the active medical officer of health at the time the notification powers were first obtained, and by whose energy several small-pox outbreaks were suppressed), the late Dr. Tomkins, and Dr. Priestley, both of whom have so ably carried on the work begun in the seventies. But before I refer briefly to the Leicester experiences let me once more call to your notice a fact which has not always been remembered even by those in our profession who might be expected to be specially informed—viz., that the term "epidemic" is entirely a relative expression—in other words, that what would be considered an epidemic now would, even at the time when I first undertook the duties of a medical officer of health, have been considered no epidemic at all; indeed, nothing more than ordinary endemic (if it be so called) prevalence of the disease. This it is only fair to the authorities of Leicester to state. As an illustration of the impressions that arise from the frequency with which a subject is referred to in the official or semi-official prints, may be mentioned the small-pox prevalence in Leicester in 1892, which is no doubt classed amongst severe epidemics. This epidemic consisted altogether of 357 cases in a population of nearly 180,000, or less than 2 persons in every 1,000 of the population. The total mortality was only 21, which, when we compare it with that of other towns, was not so very great, and would certainly not have been considered indicative of an epidemic in former times. The Leicester system, as it has been termed, is in reality a mixture of systems, none of which are carried out in perfection. In the first place, what makes the case of Leicester exceptional is the large proportion of unvaccinated children; this, however, does not imply that the proportion of persons altogether unprotected by vaccination is so markedly in excess as is generally supposed. The population of the town was, as a whole, well protected by vaccination until late years. Dr. Priestley, in his report referring to quarantine statistics, says: "It is clear, therefore, that small-pox has broken out chiefly amongst the vaccinated adult population, and has been prevented from spreading, not only by prompt isolation and other measures taken, but also by the fact that our adult population is vaccinated, and therefore somewhat protected, while at the same time 107 children under ten years of age have suffered. What would have happened had the small-pox 'caught on' amongst children of that age-period it is serious to contemplate." Again, hospital isolation was not, of course, the main safeguard, inasmuch as the attendants at the hospital were for the most part specially protected. To quote from the report again: "Thus of 40 officials connected with our small-pox hospital, 6 were inefficiently protected, and of these 5 contracted small-pox and 1 died, whilst of the other 34, all of whom were efficiently protected either by revaccination or a previous attack of small-pox (as shown by extensive pitting), not one contracted small-pox." So that around the centres of infection segregated at the hospital was a cordon of protected persons. But over and above vaccination and revaccination, Leicester has been following a practice rather than a system which is peculiar to itself. In the first place, Leicester is not one of the towns which have availed themselves of the recommendation of the Royal Commission and secured a site at a considerable distance from the borough, where something like *true isolation* could be carried out, and in consequence a good deal of trouble arose there by the infection of persons suffering from scarlet fever isolated (save the mark!) in the buildings on Freake's ground. Moreover, persons living in a comparatively isolated suburb called Newfoundpool, which is close to the hospital, suffered especially, whether by direct or aerial infection does not appear to be absolutely certain. So that in point of one of its essential isolation equipments the Leicester system was inferior to that of some other towns. On the other hand, most extraordinary precautions for the early notification and detection of possibly infected cases are carried out with great loyalty by the staff of the health department and submitted to by the population. I have already in my first lecture stated what the special Leicester quarantine regulations are.

[Here the lecturer exhibited spot maps and described the important observations of Dr. Coupland on behalf of the Vaccination Commission, made during the small-pox prevalence at Leicester, which bore directly on the subject of isolation. He continued:]

The strong points of the various systems carried out at Leicester are: the very great care taken in the detection, diagnosis, and early reporting of cases; the immediate removal of cases to the hospital; the subsequent quarantining of the inmates of the infected houses, either (*a*) at special buildings, or (*b*) at home, and in either case the subsidising of the persons so quarantined; and, above all, the revaccination of the persons who, by their attendance upon the sick, would be most likely to fall ill. (In this last respect Leicester is only in line with other places.) The weak points of the Leicester systems are (1) the large proportion of young children unvaccinated, the danger of which was exemplified in their outbreak of 1892; (2) the position of their hospital, which is too near to a populous suburb and not sufficiently far from the main portion of the town to constitute what we may term true isolation; and (3)—the greatest imperfection of all, according to modern views—the fact that cases of scarlet fever are isolated almost alongside of small-pox. The dangers attending this last-named practice—namely, that of isolating small-pox in buildings contiguous to and perhaps in communication with those occupied by scarlet fever patients—is one that is specially dwelt upon by Sir George Buchanan in his introduction to the report of 1882 on the use and influence of isolation hospitals, where he speaks of the misfortunes within the walls of the institutions themselves. Ten years before the 1892 outbreak at Leicester there had been experiences in a neighbouring town of the dangers arising from attempting to isolate scarlet fever in a group of huts or sheds arranged on an area of seven acres of ground when small-pox also at the time of a rising epidemic was being admitted. Small-pox cases took scarlet fever and *vice versâ*. Such isolation (so called) can only by spoken of as quite unpermissible at the present day. It cannot therefore but be recognised that in this respect the Leicester system was especially weak. Taken as a whole, therefore, the lessons taught by Leicester are not nearly so instructive as to the value of isolation as they might have been had the authorities secured a better position for their hospital and understood the value of true isolation in every respect. In such a case it is possible they would have still further postponed the occurrence of an outbreak assuming what is termed epidemic proportions. It will, of course, be understood that I speak of the Leicester experiences strictly from the point of view of isolation and as illustrating the great influence which was exercised first of all in the provincial towns by precautions other than vaccination and specially adapted to diseases which are infectious, like small-pox. Elsewhere in the provinces for many years great activity had been displayed in dealing with initial outbreaks of this disease, some towns having acquired not only special powers as to making notification systematic and compulsory, but others having sought for powers which the Sanitary and Police Regulation Committee of the House of Commons were eventually obliged to stop on the ground of undue interference with personal liberty. At the time, then, of the small-pox prevalence from 1881 to 1886 it was beginning to be understood in London, as elsewhere, that the medical officer of health of a district being supported by an authority who did not stint expenses of isolation, and even occasionally for the compensation of individuals, it was quite within the bounds of possibility, for a time, at any rate, to prevent epidemic diffusion, and that where, as in most towns, such precautions were assisted by the early revaccination of the inmates of infected households the public had additional safeguards against the spread of the disease. I can testify from experience as a medical officer of health of a London district and as a member of the Metropolitan Asylums Board that these provincial experiences, which were much discussed at the Society of Medical Officers of Health, produced an effect on London

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sanitary administration during those years resulting in a striking diminution of the disease; so that by the time the central office had provided its hospital ships and completed its excellent ambulance arrangements the medical officers of health were quite ready to take advantage of them. Even without compulsory notification it seemed to be possible to learn of every case as it occurred, and but a very short interval elapsed before it was removed far out of London. The conditions in 1889, the year of no small-pox deaths, not only as regards the system of isolation, but also the system of sanitary administration, were as different as they well could be from the time when Mr. Power made his inquiry at Fulham in 1881. How far exactly improved sanitary administration and how far the essential change in the isolation system were to be credited with what followed it is obviously impossible to say with certainty. Before leaving this part of my subject let me refer again to an expression that I have used already—namely, that small-pox hospitals are under certain circumstances entitled to be considered a boon. They have, moreover, no appreciable counterbalancing disadvantages. That, at any rate, is the conclusion I arrived at after studying the effects of the extra-urban isolation of small-pox. That, also, would seem to be the opinion arrived at by Dr. John McVail, who gave a very interesting discourse on the subject of aerial convection of small-pox from hospitals at the Epidemiological Society two years ago. On that occasion he recalled the controversy between Dr. Haygarth of Chester and Professor Waterhouse of Cambridge, U.S.A., on this subject a century ago. I give Dr. McVail's conclusions in his own words:—

"1. There must apparently be intensity of virus depending on (*a*) the period of the epidemic, a rising epidemic being important, and (*b*) concentration of acute cases as centres of infection; (*c*) there are apparently also minor waves of epidemicity referring to particular days or weeks, these waves constituting flood tides of infectivity.

"2. (*a*) A foggy condition of atmosphere or light winds appear to be of consequence, as observed both by Waterhouse and Power; (*b*) possibly *only* the atmosphere of towns or cities may possess the necessary carrying power. No good evidence has yet been adduced of such occurrences in connexion with hospitals situated in rural districts; but no doubt the failure here may be as much owing to want of population as to atmospheric condition.

"3. Bearing in mind the conclusions arrived at by Dr. Whitelegge in his Milroy Lectures, it may well be the case that part of the influence of a rising epidemic is due to the existence in any special area of a greater or less number of persons specially susceptible of small-pox and easily infected by its first active onset. The supply of such persons would be rapidly diminished or exhausted and would not be renewed in the course of any single epidemic."

"*No good evidence has yet been adduced of such occurrences in connexion with hospitals situated in rural districts.*" This is true, I believe, in a very wide sense, if we include under the term "rural" institutions which, though not remote from towns, partake of the rural character, so far as isolation is concerned. In 1887 I had the opportunity of making a short visit to New York and of seeing, with the medical officer, some arrangements in that city for the isolation of infectious diseases for which the public authority was called upon to make accommodation. I was informed at that time by the health officer that no special incidence of small-pox had been noted in the part of the city which would come within the range of distal infection from the island on which the small-pox cases were segregated. Of course, the incidence may not have been specially looked for, but it cannot have been marked or attention would have been drawn to the subject as was the case round Fulham Hospital in 1880. Within the last few weeks I have received a communication from Surgeon-General Billings, from which I quote the part relating to small-pox diffusion: "With regard to your question as to the diffusion from small-pox hospitals I do not know of any record of anything of the kind in this country, but the small-pox hospitals of our cities are usually located at a distance from any habitations in very thinly settled suburbs. I am familiar with the reports of the Local Government Board on this subject and think that Mr. Power's argument is a strong one, but I am of the opinion that a collection of small-pox cases may be so managed as to prevent the diffusion of specifically infectious dust therefrom." At various times during the last few years I have also had the opportunity of discussing this question with gentlemen officially connected with sanitary administration in Australia and at the Cape Colony, where, so far as my information goes, atmospheric dissemination has not been regarded in any way as a drawback to the hospital isolation of small-pox. Still, as the Royal Commissioners cautiously observed, the utmost care should be taken to guard against it in the event of its becoming necessary at times of continued fogs or other special circumstances to retain acute cases of small-pox in towns. It was suggested by Professor Burdon Sanderson, a member of the Royal Commission, that under such circumstances hospitals might be constructed so that the air of the sick wards should be subjected to a high temperature. A small committee, of which I was one, was formed in 1889 to consider the practicability of this suggestion. I believe I am right in saying that Sir Douglas Galton was ready with a plan, but we were unable to persuade the Asylums Board that it was necessary to adopt such a measure. I confess I have been the less disappointed at our failure on learning, as I have done during the last few years, from the reports of medical officers in Surrey that they have been for a long time in the habit of drafting cases of small-pox which occurred in country districts, not, it is true, into the very heart of London, but into a district which, if we take the proportion of persons per square mile, is comparable to a very thickly inhabited town. It is gratifying to note that all the time that process has been going on we have heard nothing of those dangers which we have been taught to associate with the hospitals for which the Poor-law Department of the Local Government Board was primarily responsible.

In concluding this lecture I feel that I ought to give some reason for dwelling so long upon the one disease variola. The proportion of the small-pox death-rate at the present day, since the adoption of vaccination became general, is comparatively insignificant, and if we compare the death-rate from this cause with that of the other principal zymotic diseases it may be called trifling. On the other hand, this disease affords a most striking proof of the value of preventive measures such as are administratively possible at the present day. It is from that point of view mainly, I need not remind you, that public health departments have to regard disease prevalence. They must also regard it partly from the view of the lesson which it may possibly afford in the treatment of other infectious diseases. With regard to the prospects held out of a complete riddance of that which a century ago, before the time of our countryman Edward Jenner, was a terrible plague all over the world, may it not be possible that these lessons we are learning at the end of the century may teach us much which will prove essentially valuable in the preventive treatment of other diseases? The behaviour of small-pox under different conditions, which has been so closely studied, may throw a light on many questions of epidemiology and may eventually enable us in a most practical sense to widen the scope of preventive medicine.

THE EFFECT OF EXERCISE ON THE EXCRETION OF UREA: A CONTRIBUTION TO THE PHYSIOLOGY OF FATIGUE.

BY ALEXANDER HAIG, M.D. OXON., F.R.C.P. LOND.,
PHYSICIAN TO THE METROPOLITAN HOSPITAL AND TO THE ROYAL HOSPITAL FOR CHILDREN AND WOMEN.

I POINTED out about nine years ago[1] the fact that the fall of uric acid excretion brought about by the administration of an acid was almost always accompanied by a rise in the excretion of urea. But owing to ignorance in other directions and to what I now regard as the erroneous observations of others I gave what was probably a wrong explanation of the fact, and otherwise failed completely to appreciate the importance of my observation. Since that time I have found out that uric acid taken by the mouth is not converted into urea, but is in due time excreted as uric acid in the urine.[2] And also that while a marked fall in uric acid is commonly accompanied by a rise of urea, a marked rise of uric acid is also commonly accompanied by a fall of urea. It was only, however, comparatively recently in working at the physiology and pathology of fatigue that I appreciated something of the real bearing and importance of my previous observations. Thus in the second edition of "Uric Acid" in Chapter viii., on Mental Depression and Fatigue, I point out, on p. 160, with regard to the causation of fatigue, that while such drugs as opium and

[1] Journal of Physiology, vol. viii., p. 215.
[2] Ibid., vol. xv., p. 167.

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cocaine, which clear the blood of uric acid, relax the arterioles and improve the circulation in all the organs and tissues of the body, greatly increase bodily strength and power of endurance, it is probable that excess of uric acid in the blood, which contracts the arterioles and diminishes the circulation in all the organs and tissues, will produce fatigue of body as well as depression of mind. I then go on to point out that the effect of exercise is to lower the acidity of the urine owing to the increased excretion of acids by the skin in perspiration; that the fall of acidity, or, more accurately, the increased alkalinity of the blood, allows the passage of an excess of uric acid through it; and that this is accompanied by a fall of urea and the presence of more or less marked feelings of fatigue. Here, then, is the physiology of fatigue—depressed and deficient circulation in the muscle and nerve tissues owing to excess of uric acid in the blood; and this is obviously the explanation of the great disinclination for bodily and mental exertion which accompanies the uric acid headache or mental depression due to the same cause. But if fatigue is thus due to the presence of excess of uric acid in the blood, and if opium and cocaine can for a time abolish fatigue by keeping the blood clear of uric acid, it follows that fatigue will be absent or very slight so long as uric acid is absent from the blood, no matter what method is adopted for bringing about this result; and as there are plenty of ways of keeping the blood clear of uric acid it follows that there are also plenty of ways of preventing fatigue besides the use of opium or cocaine, or any drugs which act in the same way. Opium and cocaine keep the blood clear of uric acid by raising the acidity; they thus counteract the effects of exercise and prevent the blood becoming a good solvent of uric acid as its result. But there is obviously another way of keeping the blood clear of uric acid under these conditions—namely, by previously clearing out by means of solvents all the uric acid available to be got into solution by the rising alkalinity of the blood which the exercise produces. Now the most powerful solvent and excretant of uric acid is salicylic acid or one of its salts, and if these are given for four or five days before the exercise is taken, so as to sweep out all the uric acid available for solution in the blood, and if the drug is left off on the day that the exercise is taken, some very remarkable results are obtained. First of all there is a great fall in the excretion of uric acid, which always occurs after salicylates have been taken for a few days and left off, so that there is absolutely no uric acid to come through the blood as the result of the rising alkalinity of exercise and perspiration. And with this condition of things there is almost complete absence of fatigue[3] even with the most severe exercise and the most profuse perspiration, and muscle power and endurance appear to be increased at least 50 per cent.; and, further, there is this remarkable result, that whereas with the plus excretion of uric acid in ordinary exercise there goes a great fall of urea followed by a rise next day, in the exercise undertaken in the absence of uric acid from the blood and in which fatigue is more or less absent there is either an immediate rise of urea or only a very slight fall.

It appears to me that in these facts we have an almost absolutely complete demonstration of the enormous influence exerted by uric acid on the metabolism, nutrition, and function of the whole body, and we have also a nearly complete explanation of a point in physiology which has been much disputed—viz., the influence of exercise on the excretion of the urea. I shall now give a few figures to illustrate the chief points I have mentioned. In Fig. 1 is shown the effect of three hours' bicycle work in the A.M. hours, and the result is a great fall in the excretion of urea—viz., 57 grains—followed by a rise next day of 3 grains. Take the fall from the rise, and the result of the two days is an increased excretion of urea amounting to 1 grains. Note, further, that uric acid is fairly high above rea, so that probably 4 grains of it passed through the blood n the day of exercise. In Fig. 2. is shown in contrast with ie above the effect of three hours' bicycle exercise in the .M. hours of the day; the amount of work done in the two ases is as far as possible identical. Here we see a fall of nly 36 grains, followed by a rise of 60 grains next day, and ibtracting the former from the latter we get a rise of 4 grains of urea as the result of the two days, so that hile the amount of exertion was as near as possible the same in both figures the resulting excretion of urea was the same all but 3 grains. The point which these figures are intended to illustrate is that for the same amount of exercise the fall of urea that results is greater when the exercise falls in the A.M. hours than when it falls in the P.M. hours, and that this is due to the fact that there is generally more uric acid in the urine and blood in the A.M. than in the P.M. hours, for we shall presently see that the fall of urea that accompanies exercise and fatigue is entirely dependent on the amount of uric acid in the blood, and that the amount of fatigue produced by any given exercise varies absolutely with the fall of urea, and is also, therefore, dependent on the amount of uric acid in the blood. And this is no chance result of a single experiment, for I have been working at these points for several years, and it was the remarkable fall of urea that always accompanies exercise in the A.M. hours that first drew my attention to the subject.

FIG. 1.

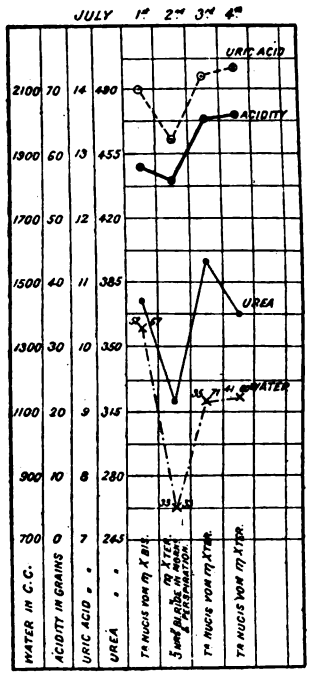
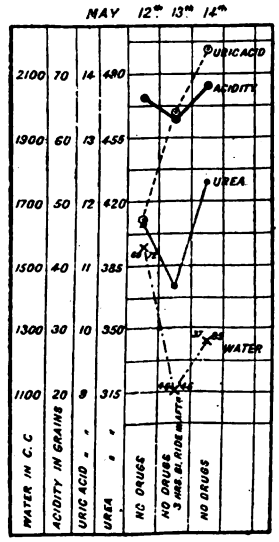


FIG. 2.



[3] See Uric Acid, third edition, p. 255.

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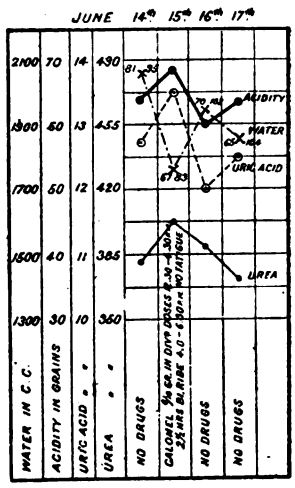
I will merely remark in this connexion that Dr. Vaughan Harley has pointed out[4] that less muscular work can be done at 9 A.M. than at 11 A.M., and that muscle power rises from 9 A.M. to 11 A.M., and that there is also a notable fall in muscle power at 4 P.M. And it is a remarkable fact that there is generally more uric acid passing through the blood at 9 A.M. than at 11 A.M., and about 4 P.M. there is generally also a temporary rise in the excretion of uric acid. Again, I think that almost everyone must have made this clinical observation that children are often dull and heavy and disinclined for both mental and bodily exertion in the A.M. hours, when much uric acid is passing through the blood, while the same children are lively and bright and can hardly be restrained in the P.M. hours, when there is but little uric acid in the blood. *A priori* one would expect that the facts would be exactly the reverse, for in the A.M. hours the child has just been refreshed by a long night's rest and in the P.M. hours it has borne the burden and heat of the day. Then with regard to Weston and his competitors, whose fatigue symptoms were observed by well-known members of the medical profession, I have pointed out that all the symptoms described are those which betoken the presence of excess of uric acid in the blood. We see, then, that in physiological conditions exercise undertaken in the A.M. hours generally causes greater fatigue and a more marked and decided fall in the excretion of urea than similar exercise undertaken in the P.M. hours. We shall now see that if measures are taken to keep the blood clear of uric acid during the exercise it will be accompanied by little or no fatigue and will also produce little or no fall in the excretion of urea.

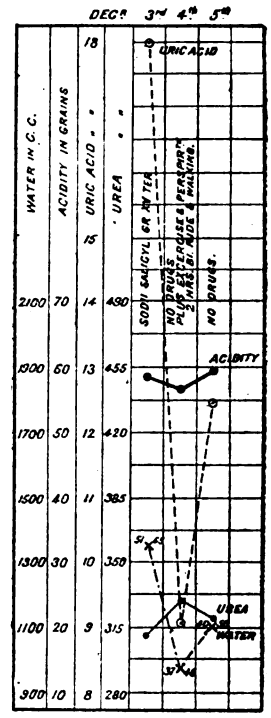
I have already referred to the action of opium and have elsewhere pointed out that it clears the blood of uric acid by diminishing the alkalinity of the blood. Now the action of opium in preventing fatigue is so well known that I wished to give a figure showing its effects on the excretion of urea and uric acid under exercise in myself; but I was met by this difficulty. My diet is one in which milk is almost the only animal food, and I further consume a considerable quantity of fruit and vegetables, and the result is that I have a large introduction of alkaline bases and but a small introduction of acids and acid salts, such as the phosphates and sulphates of animal tissues; the consequence is that the acidity of my urine is much lower than that of those who eat ordinary diet and the alkalinity of my blood probably much greater. Hence I found that opium (in such doses as I cared to take) had comparatively little effect on the acidity of my urine, and as it thus affected the alkalinity of the blood but slightly it

FIG. 3.



failed to clear the blood of uric acid and also failed to prevent fatigue and a fall of urea when exercise was taken. I therefore turned aside and selected a drug which acted independently of acidity and cleared the blood of uric acid—viz., mercury, though other metals, as copper, zinc, or silver, would have done equally well; and I have no doubt that the action of these metals in forming insoluble compounds with uric acid accounts for the so-called tonic effects of small doses of these metals or their salts. I have pointed out that the urates of mercury are insoluble,[5] and Fig. 3 shows its effect in the form of calomel on the excretion of urea under exercise, and we see that there is an immediate rise of urea to the extent of 23 grains, followed by a fall next day; and with this rise of urea there was not only absence of fatigue but a feeling of increased muscle power and endurance. In the same figure we see that on June 17th two hours of gentle exercise without any calomel produced a fall of urea. But there are other ways of keeping the blood clear of uric acid besides giving mercury, opium, or other drugs which directly or indirectly diminish the solvent powers of the blood for uric acid. And one of these is to clear out of the body by means of solvents all the uric acid immediately

FIG. 4.



available to be got into solution in the blood when its alkalinity is increased by exercise and perspiration. And perhaps the best way to accomplish this is to take a course of salicylate of soda for four or five days before the day on which the exercise is to be taken and then on the day of exercise stop the drug; the result is that uric acid falls very low, generally considerably below urea, and there is little or none to pass through the blood, and under these conditions fatigue is for many hours completely absent even in spite of severe exertion with perspiration, and the day's excretion of urine shows that there is also little or no fall of urea or even a rise. Fig. 4 shows the effect of some exercise taken the day after a dose of salicylate which had caused a very large excretion of uric acid; on the day of exercise the uric acid fell greatly and was slightly below urea, and with this there was an immediate rise of urea to the extent of about 19 grains followed by a fall next day. I have made similar experiments on numerous occasions, but shall only shortly mention my results in one more. On June 10th, no drugs having been taken for several days, I rode thirty-five miles on a bicycle, the exercise beginning about 11 A.M. and ending about 5 P.M. This produced a fall of urea equal to 27 grains followed by a rise of 52 grains next day, and the same rise was maintained on the following day, though this was partly accounted for by further exercise. On June 24th, after a four days' course of salicylate of soda and the drug having been left off, I rode at about the same hours of the day forty-five miles on a

[4] THE LANCET, May 12th, 1894.

[5] Uric Acid, third edition, p. 61.

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bicycle. The daily curves show uric acid decidedly below urea and a fall of urea equal to 18 grains followed by a rise of 23 grains next day and 70 grains the day after. My notes show, however, that on the day this exercise was taken my food was unfortunately deficient for at least one meal, owing to my having accidentally left behind part of my supply, and but for this I think that there might have been no fall of urea on the day of exercise and a greater rise on the day that followed it. As it is, however, the difference between a fall of 27 grains for thirty-five miles and a fall of 18 grains for forty-five miles is sufficiently marked, and on the forty-five miles day there was little or no fatigue in spite of severe exercise and perspiration till supplies of food began to run short. There is one further way in which the amount of uric acid in the blood or available for solution in it can be diminished, and that is by diminishing the daily introduction of uric acid,[6] and this is an experiment which is constantly being performed for us by others. I refer to vegetarianism. And in my book[7] I have referred to the fact that in a long-distance walk, which excited some interest and which is mentioned in THE LANCET,[8] the winners out of a large number of competitors were vegetarians. And in this country also, though vegetarians are quite insignificant as to numbers, they are not very rarely, I think, seen in the front of competitions in endurance. It is precisely in the long distance that the absence or relative absence of uric acid from the blood tells; the meat-eater will do very well for half an hour or even an hour, the relatively low alkalinity of his blood suffices to keep it pretty free from uric acid for that time in spite of the exercise; but once his alkalinity rises decidedly the inevitable uricacidæmia results, and he is then quickly outpaced by his vegetarian competitor. Of course, training counts for something and one of the effects of training—i.e., of regulated daily exercise—is to provide for a free excretion of uric acid more or less every day, so that the man who is in training will not have so much uric acid in his body available for solution in his blood as the man who, being on the same diet, starts for his race without any training direct from sedentary work. I am frequently asked by sceptics on diet whether I am strong and fit for any exertion, and I reply that, other things equal and sedentary life apart, I am quite as strong on my present diet as on any other, and, further, have far more power of endurance than on any other diet. Of course, it goes without saying that with low urea nothing can be done—*nihil a nihilo fit*. But then my point is that my urea is not low; it remains at or about the physiological level of from 1 to 3·5 grains per pound per day; but I get the nitrogen necessary for this from sources which introduce into my body as little as possible of unnecessary uric acid—that is to say, I avoid meat, meat extracts, soup, beef-tea, and strong tea or coffee.

But to return. These facts seem to demonstrate pretty clearly that fatigue is proportional to the amount of uric acid available for solution in the blood at the time that any given muscular exertion is undertaken, and that the immediate effect of the exercise on the excretion of urea is similarly directly determined by the amount of uric acid present. I would point out that these results of mine correspond absolutely with those of Parkes, for he often found a diminution of urea during the exercise, followed subsequently by a slight rise, and they serve to explain also most completely the conflicting evidence and contradictory results of other observers. Such contradictory results can now be absolutely explained, for we see that they are simple results of fluctuation in the excretion of uric acid, and if you control the uric acid you can control also the effect of the muscular exercise upon the urea and not only that but also the fatigue which the exercise produces. My results bear also in a most important manner on the explanation that is to be given of the results obtained by Fick and Wislicenus in their celebrated experiment, in which they performed a certain amount of work on a non-nitrogenous diet and estimated the nitrogen excreted, with the result that the excreted nitrogen fell very far short of the amount required to account for the work performed. From this experiment it has been concluded that their muscular energy had other sources besides their proteid metabolism, and this may still be the correct conclusion, though the results I am now bringing forward must, I think, be regarded as modifying it very considerably. In the first place, my experiments show that exercise always produces, sooner or later, an increase in the excretion of urea, and I have absolutely no doubt about this fact, as I have been watching it for years in my daily work at the excretion of uric acid and urea and have hundreds of curves to prove it. I am also at this point in complete accord with the results obtained by North[9] in his elaborate and careful experiments, as he showed that in times of rest there was a storage of nitrogen in the body and that after exercise there was an increased excretion of a roughly corresponding amount. The results I now bring forward further show that the time at which this increase of urea is excreted depends absolutely on the amount of uric acid present in the blood. Clear the blood of uric acid by no matter what means, the exercise will be accompanied by an immediate rise of urea; bring a lot of uric acid into the blood—and it is easy to do this[10]—there will be an immediate fall of urea, followed by a rise next day.

Clearly, then, the differences and contradictions between the results of previous experimenters were due to ignorance of this fact, and this explanation has a special and important bearing on the experiments of Fick and Wislicenus, for they did their work on a non-nitrogenous diet. Now it follows simply from my previous researches that one effect of placing themselves on a non-nitrogenous diet would be a great fall in the acidity of the urine, and a corresponding increase in the alkalinity of the blood; and the natural and only possible result of this would be (as they had exercised no care to clear out uric acid beforehand) that their blood would be forthwith flooded with a more or less large amount of uric acid from the stores in their bodies, and the result of this would be, as we have seen above, that muscular exercise would be accompanied by a great and immediate fall in the excretion of urea. No doubt next day, as in my experiments, there would be a rise that more than compensated for the fall; but these experimenters estimated the nitrogen of twelve hours before labour, of three hours during labour, and of six hours' rest after labour, and drew their conclusions from these; but this period would not be nearly long enough to include the rise that followed the fall, hence the nitrogen they obtained was very far short of the amount really excreted as the result of the exercise taken, and their results are to this extent fallacious. Though this argument applies to their experiments as a whole, it is interesting to note that they did get an immediate increase of the excreted nitrogen at the time of the exercise, thus:[11]

—	Nitrogen excreted in grammes per hour.	
	Fick.	Wislicenus.
In twelve hours before the labour ...	0·575	0·556
In three hours' labour	1·103	1·043
In six hours' rest after labour	0·406	0·403

But this, no doubt, corresponded absolutely with the excretion of uric acid and the amount passing through the blood, for though they took no nitrogen during the experiment the nitrogen they had previously taken served (as shown by North) to keep them going and prevent any great increase of the alkalinity of the blood till the exercise had been going on for some time; but towards the end of the exercise, and still more in the rest after it, there would be a great rise in the alkalinity of the blood increased by the absence of nitrogenous food, and it would be flooded with a correspondingly large amount of uric acid. The result of this would be just what the above figures show us, a great fall in the excretion of nitrogen in the hours that follow the labour, for during the hours of labour it was upwards of one gramme per hour for each of the experimenters, but in the rest which followed it fell to less than half a gramme per hour. If the hours of labour had been examined hour by hour I have no doubt that the larger excretion of nitrogen would have been in the first hour and a half or two hours, and that after that there would be a considerable fall, and if uric acid and urea had been separately estimated uric acid would have been

[6] See Journal of Physiology, vol. xv., and Brit. Med. Jour., December, 94.

[7] Uric Acid, third edition, p. 263.

[8] THE LANCET, June 10th, 1893.

[9] Proceedings of the Royal Society, 1885, p. 501.

[10] Journal of Physiology, vol. xv.

[11] From figures given in Professor Foster's Text-book of Physiology, 1877, p. 325.

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found below urea (in the relation 1 to 35) at the beginning of the labour, but far above it towards the end and in the rest which followed. (See also previous remarks about vegetarians and meat-eaters.)

As I pointed out at the beginning of this paper, the amount of uric acid in the blood not only controls the excretion of urea under exercise but under all conditions, from hour to hour and day to day, and practically every rise of uric acid is accompanied by a fall of urea and every fall of uric acid by a rise of urea. In attempting to verify these statements, however, those who come to the subject *de novo* must bear in mind certain simple propositions—viz., that the rise and fall of uric acid must be sufficiently decided to overcome other concomitant fluctuations in a reverse direction; for instance, it would require uric acid to be very high indeed to overcome the rise of urea that generally follows the day after exercise; but in pathology uric acid may be high enough even to do this if its rise is in part the result of a complete upset of gastro-intestinal digestion. On the other hand, if uric acid has been for some hours above urea and is brought down below it suddenly with any drug, the probability is that there will be a fairly marked rise of urea corresponding to its fall; but if uric acid has been close to urea for some hours before the drug is given to bring it lower the rise of urea may be too small to show in the curves. And it was, as I have pointed out, the rise of urea that followed the ingestion of uric acid that was thought by Sir A. Garrod and other observers to show that the uric acid given had been converted into urea; but we now know that any acid or metal which clears the blood of uric acid will produce a similar rise of urea, and yet these substances introduce no fresh nitrogen into the body and are incapable of conversion into urea. We also know that uric acid taken by the mouth acts as an acid and for a time also clears the blood of uric acid and so causes a rise in the excretion of urea; but the uric acid taken will pass out in the urine a few days later, and will increase the ordinary excretion in proportion to the amount that was swallowed.[12] If, then, uric acid in the blood controls, as above pointed out, from hour to hour, day to day, and during and after exercise, the excretion of urea we may consider for a moment the way in which it produces such effects. Now I have for years been pointing out that uric acid in the blood controls the circulation throughout the whole body, and that its excess in the blood is at all times accompanied by high blood pressure and deficient capillary circulation throughout the whole body, the latter being the cause of the former. I have further said that the best proof of this is to be seen in the fact, which anyone can verify in a few hours of work, that the hourly and daily excretion of water by the kidney varies inversely with the uric acid also excreted from the kidney. And I believe that there can be no explanation of this fact save that I have given, that the uric acid, directly or indirectly, obstructs the flow of blood through the arterioles and capillaries of the kidney and thus prevents the passage of water out of the blood into the urine. Here, again, investigators must bear in mind certain cautions: first, that where there is no excess of water in the blood, relaxing the arterioles by clearing the blood of uric acid will not produce a diuresis; and, secondly, that when the blood is cleared of uric acid even for a short time there may be so great a diuresis that if care is not taken to separate excretions accurately the urine of several hours may seem to be profuse, though the uric acid during the major part of this time is not at all scanty; but separate accurately from hour to hour, or if necessary from half-hour to half-hour, and you will see that the great diuresis did correspond to low uric acid, and there are plenty of figures in my book which show this. But apart from such sources of fallacy the uric acid and urinary water do vary inversely in everyone from day to day or hour to hour, and every drug that clears the blood of uric acid produces a diuresis if there is any water to be run off, and the action of nearly all the best known diuretics is a simple illustration of this law.

If, then, it be granted that uric acid in excess in the blood does obstruct the circulation in the arterioles and capillaries of the whole body, it is easy to see how it produces fatigue and the fall of urea which accompanies muscular exercise except when the blood is specially cleared of it. For obviously deficient circulation must mean deficient metabolism in all the organs and tissues of the body and deficient removal of waste products from these same tissues, and it is in this way that excess of uric acid in the blood diminishes the excretion of urea during exercise and produces fatigue. It no doubt affects both the muscular and nervous tissues, at the same time producing both fatigue of body and dulness and depression of mind. The effect then of uric acid on tissue metabolism in the human body is the same as if one put a wet blanket on the kitchen fire and shut all the flues to cut off the air supplies; the result is slow and deficient combustion. The wet blanket corresponds to the products of previous metabolism which are left to clog the tissues so long as the circulation is defective; and the removal of the wet blanket is the cause of the rise in urea which accompanies the next fall in uric acid; and obviously this rise of urea is proportional not necessarily to the fall of uric acid, but to the amount of interference with metabolism that has previously taken place in the tissues. I conclude therefore that the effect of exercise is to increase the formation of urea, and that if there is a free circulation through the tissues owing to comparative absence of uric acid from the blood this urea will pass almost at once into the urine and be excreted. With this condition of things will go comparatively little fatigue and greater and longer continuance of exertion will be possible; but if there is a lot of uric acid in the body or food, so that the rise of the blood's alkalinity which the exercise and perspiration produce can dissolve a large quantity and bring it into circulation, then you will get deficient circulation in all the tissues, and with this a fall in the excretion of urea and great fatigue, so that continued exertion may be almost impossible, and if persevered with may lead to syncope and more serious troubles.

Further, as we have seen above, it is possible by controlling the uric acid to control the result. From this point of view the physiology of fatigue is extremely simple, and, as I have previously pointed out, every symptom of fatigue in Weston and his competitors, the increase of pulse tension, the coldness of the surface and extremities, the alterations in the heart sounds, are but the signs of the contracted arterioles and capillaries which accompany every excess of uric acid in the blood, and under these circumstances a corresponding excess of uric acid in the urine will be found by everyone who takes the trouble to look for it. Professor M. Foster, writing on the physiology of weariness in 1893,[13] attributes it to the presence of a poison in the blood; I believe my researches now suffice to demonstrate that the poison is uric acid. I may point out that these facts explain completely the observed relations between fatigue and weather changes—i.e., that fatigue is greater in warm and less in cold weather, for obviously the warmer the weather the greater will be the perspiration that any given exertion produces, and the greater the perspiration the greater will be the rise in the alkalinity of the blood, and the sooner (other things equal) will it contain excess of uric acid. On the other hand, a cold wind or a cool frosty day will tend to diminish perspiration, and hence will reduce and delay the increase in the alkalinity of the blood; under these conditions much more exercise can be taken without fatigue, just as with mercury, opium, &c., and for the same reasons, for the muscles are kept longer free from the deficient circulation, nutrition, and metabolism which uric acid produces. The argument that has been here applied to the production of energy by muscles holds also probably for the production of heat by these and other tissues—that is to say, when the blood is clear of uric acid there will be increased production both of energy and heat throughout the tissues of the body; therefore, external cold will increase the production of heat and external warmth will diminish the production of heat, just as we have seen that they also increase and diminish the production of muscular energy; and in the action of uric acid on the vessels we have at once established a regulating mechanism that damps down the fires of life when they are not wanted, but allows them to burn brightly when an increased production of heat is required. And I believe that excess of uric acid in the blood not only alters the relation between the temperature of the skin and that in the rectum by shutting the blood out of the skin and increasing the temperature of the deeper parts, a condition recognised by Marey as due to contraction of skin vessels,[14] but when the excess of uric acid in the blood is great, as in certain pathological conditions, I believe that the contraction of vessels throughout the body diminishes

[12] See Journal of Physiology and Brit. Med. Jour., December, 1894.

[13] THE LANCET, June 17th, 1893.

[14] Circulation du Sang, p. 590.

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the absolute production of heat, and then the temperature in the rectum as well as that in the mouth or axilla may be subnormal. As Marey truly points out, when the temperature of the surface is subnormal we must take the temperature in the rectum also before we can decide which of the above causes accounts for the low skin temperature; but I shall have more to say on these points some other time. I must not prolong this paper by a discussion of all the physiological and still less of the pathological bearings of the subject; but if I am right we shall be able (and I have fairly good reason to believe that I am able now, for I have known most of these facts and have been acting on them for a considerable time) not only to control fatigue in physiological conditions but also to prevent its development into such more serious troubles as syncope with dilatation and strain of the heart, or albuminuria, or disintegration of the blood, all of which I take it, and have elsewhere suggested, are but the results of the more serious and prolonged action of uric acid on the circulation, nutrition, and metabolism of the organs and tissues concerned.

Brook-street, W.

THE CLINICAL ESTIMATION OF THE ALKALINITY OF THE BLOOD.[1]

BY ROBERT HUTCHISON, M.B., C.M. EDIN.,
CHEMICAL ASSISTANT TO THE PROFESSOR OF PHYSIOLOGY, UNIVERSITY OF EDINBURGH.

IN attempting to estimate the alkalinity of the blood one is confronted by certain initial difficulties. These are dependent partly upon the physical characters of the blood and partly upon its chemical composition. The albuminous nature of the blood forbids its titration with a mineral acid, and its red colour interferes with the precise detection of the final change of colour of the indicator. Further, the blood is not homogeneous, but consists of solid particles, the corpuscles, suspended in a fluid medium, the plasma. In determining the alkalinity of the blood as a whole regard must be had to both these elements. By the separation of the corpuscles it has been found that these contain more alkali than the serum; any method, therefore, which does not ensure thorough breaking down of the corpuscles, with consequent liberation of the alkaline salts therein contained, cannot give accurate results. The peculiar chemical composition of the blood gives rise to even greater difficulties. It must be borne in mind that the blood is not by any means a simple chemical solution, but, on the contrary, consists of a highly complex mixture of salts in various and varying combinations. Of these salts, two, the bicarbonate of sodium and the disodic phosphate (Na_2HPO_4), are chiefly responsible for the alkaline reaction. In both of these salts there is still present an atom of hydrogen replaceable by metal, yet both react alkaline to litmus. Hence the curious paradox which has been emphasised by Drouin, that the blood is chemically an *acid* fluid, but reacts as alkaline to ordinary reagents. Apart from this, the colour reagent employed to show when the neutral point is reached has a considerable influence upon the result obtained. Thus we find that solutions of monobasic salts of phosphoric acid—e.g., NaH_2PO_4—are *acid* to litmus, but neutral to phenol-phthaleine; dibasic salts of the same acid—e.g., Na_2HPO_4—are *alkaline* to litmus, but, unless in strong solution, also neutral to phthaleine. Now, as such salts are always present in the blood the result we obtain will obviously depend upon whether we employ litmus or phthaleine as our indicator. In addition to this CO_2 is always present in the blood, and when liberated by another acid escapes and affects litmus feebly or not at all. In the case of phosphoric acid compounds, on the other hand, the acid liberated is able to act upon litmus *as* acid. Hence a blood, the alkalinity of which is chiefly due to phosphate of soda, will give an apparently lower alkalinity than one which contains a larger proportion of sodium bicarbonate. Nor does this exhaust the list of difficulties. It has been specially insisted upon by Meyer[2] that we have no right arbitrarily to select a certain reagent—e.g., litmus—and exclude from the category of acids all substances which fail to give a red reaction with it. Thus some alcohols, some amido acids, and some amides are chemically acids but do not react as such to litmus, and these may exist in the blood. Some of the higher fatty acids, also, when liberated are insoluble in water and so cannot affect the litmus.

When these difficulties are considered one might at first be tempted to abandon as futile any attempt to gauge clinically the alkalinity of the blood. The physical difficulties can, however, be overcome by suitable methods, while as regards the chemical objections it must be confessed that many of them are rather theoretical than practical. It is true that the blood contains chiefly acid salts; it is also true that it contains real acids. The *balance* of the reaction, however, is always in favour of what is commonly understood as alkalinity. Our methods should be able to show us to what extent fluctuations in this alkalinity occur, although we cannot expect them to inform us as to what substance it is which, by its presence or absence, occasions the fluctuations. Those substances which, while chemically acids, do not react as such to litmus are not likely to be present in the blood in such amounts as materially to affect our results. After these preliminary observations we may turn now to the consideration of the methods which are at our disposal for estimating the alkalinity of the blood. I shall confine myself in this article to methods of clinical applicability. Obviously we cannot justly demand from such a method very great accuracy. Like all clinical methods, it must needs be more or less of a compromise between accuracy and simplicity. Zuntz[3] was one of the first to attempt the estimation of the alkalinity of the blood. He employed titration with phosphoric acid, but his method demanded too much blood to be of use clinically. The same criticism applies to the method of Lassar,[4] who employed tartaric acid instead of phosphoric. Liebreich[5] devised a method for showing the alkaline reaction of the blood by means of plates of plaster-of-Paris impregnated with litmus. When a drop of blood was placed upon the plate the plasma soaked in and affected the litmus while the corpuscles remained on the surface and could be wiped off without obscuring the result. Renzi[6] employed this method to estimate variations in the alkalinity, but as he was guided solely by the intensity of the blue colour produced his results were not accurate. Lépine[7] and Canard[8] were the first to make extensive observations in man by the titration method, but employing comparatively large quantities of blood. It was not till a decade ago that Landois[9] introduced a titration method which required only easily obtainable quantities of blood. As this is the type of the titration method now in use it demands a word of description. The principle of the method consists in preventing coagulation of the blood by means of a saline solution, while all the alkali present is neutralised by titration with tartaric acid, litmus paper being employed to show when the neutral point is reached. Sulphate of soda solution is prepared, and to this a $\frac{7{\cdot}5}{1000}$ solution of tartaric acid is added in graduated amounts. Thus Solution 1 will contain $\frac{10 \text{ acid}}{100 \text{ sulphate}}$; Solution 2 $\frac{20 \text{ acid}}{90 \text{ sulphate}}$; and so on up to a solution which contains a $\frac{100 \text{ acid}}{10 \text{ sulphate}}$. Equal quantities of one of these solutions and of the blood to be examined are sucked up into a fine pipette, mixed in a watch-glass and the reaction tested with sensitive litmus paper. If the solution is still alkaline the next strongest acid solution is taken, and so on till the result is neutral. This method has been largely employed by von Jaksch,[10] who drew the blood with cupping glasses, and by Peiper,[11] who found the latter unnecessary. The method has found its most recent advocate in Drouin,[12] whose thesis constitutes the most comprehensive monograph on the

[1] This article contains the substance of an essay which was awarded the Edinburgh University London Club Prize in August, 1896.
[2] Meyer: Archiv für Experimentale Pathologie und Pharmacie, Band xvii., 1883.
[3] Zuntz: Centralblatt für die medicinischen Wissenschaften, 1867.
[4] Lassar: Archiv für die gesammte Physiologie, Band lxviii. i., p. 48, 1868.
[5] Liebreich: Berichte der deutschen chemischen Gesellschaft, Band
[6] Renzi: Virchow's Archiv, Band cii., 1888.
[7] Lépine: Gazette Médicale, 1879.
[8] Canard: Thèse, Paris, 1878.
[9] Landois: Réal. Encyclopédie, iii. 1884.
[10] Von Jaksch: Zeitschrift für klinische Medicin, Band xiii., 1888.
[11] Peiper: Virchow's Archiv, Band cxvi., 1889.
[12] Drouin: Hémo-alcalimétrie et Hémo-acidimétrie, Thèse, Paris, 1892.

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alkalinity of the blood which has yet appeared. He has improved slightly upon the method of Landois by using a $\frac{n}{30}$ oxalic acid solution to mix with the sulphate of soda. With a special dropper he places in the first glass one drop of acid and nine of sulphate, the second receives two of acid and eight of sulphate, and so on up to the tenth. An equal amount of blood is then added to each glass and rapidly titrated, delicate litmus paper being used to indicate in which glass the reaction is neutral. The method is, on the whole, simpler than that of Landois and quite as accurate. Now all these methods have the drawback of being somewhat elaborate and of demanding for their proper application a considerable amount of blood, of apparatus, of practice, and of time. It was, therefore, much to be desired that a simpler method might be found. Such a method Haycraft and Williamson believed to have discovered and described it in the proceedings of the Royal Society of Edinburgh for 1888. Since then their method has been recommended for use by various works dealing with clinical methods.[13] It depends upon the fact that if a drop of blood be placed upon the surface of a neutral *glazed* litmus paper the glaze prevents the corpuscles from entering the interstices of the paper while the plasma is able to soak in, and on wiping away the drop the blue colour due to the alkalinity of the plasma is distinctly seen. The fact that the alkalinity of the blood could be demonstrated in this manner was pointed out some years ago by Zuntz and by Schäfer. It occurred to Haycraft and Williamson that by treating litmus paper with different strengths of acid and then glazing them one would get a series of papers of graduated acidity, one of which would just be neutralised by the alkalinity of normal blood. All the papers more strongly acid than this would remain unaltered on wiping away the drop of blood, while all the less acid papers would exhibit a blue reaction, which would be the more strongly marked the less acid the paper.

This method seems at first sight to be a great advance upon the titration procedures. It has the undoubted merit of simplicity and can be very rapidly carried out. Haycraft stated that by its means "he had found the reaction of the blood to vary as greatly as that of the urine." Hence it would seem to answer every requirement. I prepared a series of ten papers according to the instructions of the authors of the method. Sulphuric acid was used to acidify the papers. The strongest paper (No. 1) was soaked in a normal solution of the acid. No. 2 was soaked in a half normal solution, and so on up to 10, which was soaked in a decinormal solution. Having determined which paper just reacted to normal blood I made a series of observations on the alterations in the alkalinity in disease by means of the papers. Of course, the results afforded could only be approximate, as there is a considerable difference between, say, a half normal and a one-third normal solution of sulphuric acid, but in this respect the method would not compare unfavourably with the titration method of Landois. Nor did I find that there was much force in the objection—the only one I have hitherto seen advanced against the method—that there is difficulty in determining exactly which *is* the paper which just gives a blue reaction with the drop of blood. It was only later, on coming to compare my results with those of other workers obtained by the titration method, that it was found that while in many diseases the results coincided, in others marked discrepancies occurred. This was specially noticeable in the case of the anæmias. I invariably found that the alkalinity of the blood in anæmia as tested by the method of Haycraft and Williamson was above normal, and often apparently to an excessive degree. Now if there be one fact upon which all those who have employed the titration method are agreed it is this—that in anæmia the alkalinity of the blood is reduced. How, then, is this contradiction in the results afforded by the two methods to be explained? It might at first be asserted that the results of the two methods are not strictly comparable. It is obvious that by the glazed litmus paper method the alkalinity of the *plasma* is what is ascertained. The corpuscles being left on the surface of the paper the alkali contained in them does not get the chance of affecting the litmus. By the titration method, on the other hand, the corpuscles are more or less completely broken down and the alkali which they contain is liberated and so arrives at estimation. But this explanation will not suffice, for the difficulty was to discover why a method which takes no account of the corpuscles should yet give an apparently higher alkalinity than one which estimates the alkali of all the components of the blood together. In searching for another explanation it occurred to me that the more watery condition of the blood in most anæmias might be the cause of the different result yielded by the two methods. The more watery the blood is the more readily will it percolate into the glazed litmus paper and the more readily will the acid be neutralised. That this supposition was correct was easily proved by experiment. If one takes fifty c.c. of glycerine and mixes thoroughly with it one c.c. of a normal solution of caustic soda the mixture will be found to react to about paper 3 of our series. If now one adds to the mixture twenty c.c. of water and again mixes the solution will now be found to react to a considerably more acid paper. That is to say, the solution, although really more dilute than before, is apparently more strongly alkaline—a paradox which is only to be explained by the greater ease with which the more watery fluid percolates into the paper. This difficulty cannot be got over by allowing the drop of blood to remain all the longer on the paper because, as will be seen, the alkalinity of the blood diminishes rapidly after its withdrawal from the body. Seeing, then, that the results afforded by the glazed litmus paper method are so dependent upon the consistency of the blood (a by no means constant factor) I consider that it is not a trustworthy clinical method and must be discarded. We are, therefore, driven back upon the use of the titration method. We have seen that this method tells us the total amount of alkali in the blood, not the alkalinity of the plasma only. But it will only give us this result if properly carried out. Loewy[14] has shown that unless the blood be titrated slowly and at the body temperature all the corpuscles are not broken down and the total alkalinity is therefore not detected, and he contends that, owing to neglect of this precaution, previous results have given too low an estimate.

I turn now to a consideration of the practical results which the estimation of the alkalinity of the blood has afforded. Before drawing any conclusions as to the alterations of the alkalinity due to disease we must, of course, make ourselves acquainted with the variations which occur under physiological conditions. The first point to emphasise regarding the alkalinity of healthy blood is its great constancy. This constancy is the more remarkable when one reflects upon the varying amount of alkali which must be entering the blood stream at different times. The only circumstances in which it is appreciably altered are during the ingestion of food and after severe muscular work. The alkalinity is considerably increased in the former condition and decreased as the result of the latter. The increase after meals is synchronous with the appearanee of the "alkaline tide" in the urine, and the latter is to be regarded as the expression and result of the former. The increased alkalinity is probably to be explained, in part at least, by the absorption of alkaline salts from the food. In part it may be due to the discharge into the circulation of sodium carbonate or bicarbonate resulting from the production of hydrochloric acid from sodium chloride in the secreting cells of the stomach. The effect of severe muscular work is to cause a fall in the alkalinity of the blood, this being probably due to the production of considerable quantities of lactic acid by muscular metabolism. Turning attention now to the condition of the blood in disease we find that the constancy above referred to is maintained in a very remarkable manner. There are comparatively few diseases in which the alkalinity of the blood is appreciably altered. By what mechanism the balance of alkalinity is maintained we know not, but this we know—that it is a remarkably perfect mechanism. Whenever the amount of alkali in the blood rises much above the mean the excess appears to be promptly excreted by the kidney. In the reverse direction, however, the mechanism does not seem to act so well. Considerable quantities of acid products can accumulate in the blood without being got rid of. Hence reduction of alkalinity is very much more frequently found in disease than increase. One may say, indeed, that an increased alkalinity of the blood is, with perhaps one exception, never found as the result of disease. Now, there are many morbid conditions in which one would not expect *a priori* to find any alteration of the alkalinity of the blood, and this expectation is usually found to be justified. There

[13] See von Jaksch's Clinical Diagnosis, third edition, 1894; Finlayson's Clinical Manual, &c

[14] Loewy: Archiv für die gesammte Physiologie, Band lviii., 1894.

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are others in which, from what we already know of their pathology, some alteration might naturally be looked for. The latter may usually be referred to one of four groups: (1) all diseases associated with profound alterations of the general metabolism—e.g., fevers and cachexias; (2) diseases of the blood itself; (3) some toxic states—e.g., jaundice, uræmia, and advanced diabetes; and (4) some so-called diathetic conditions—e.g., gout and rheumatism. Now, as a matter of fact, as far as our observations have hitherto gone, the above list includes practically all the diseases in which any marked alteration in the alkalinity of the blood has been found to occur. I shall consider briefly each group by itself.

1. Speaking generally, one may say of fever as a process that it is accompanied by a diminution of the alkalinity of the blood. This diminution, though very constant, is not invariable, and is found to be roughly proportionate to the height of the fever but not to its duration. It is most probably occasioned by the entrance into the circulation of imperfectly oxidised katabolic products of an acid nature, which are laid hold of by the alkaline salts in the blood and so neutralised. We do not know that any of the general symptoms of fever can be referred to this reduced alkalinity or that it would be at all advisable to make it the basis of any special line of treatment. Yet the reduced alkalinity of the blood is undoubtedly, *per se*, unfavourable to tissue vitality. It has been shown by Castellino and Cavazzani [15] that alkaline liquids stimulate the protoplasmic movements of leucocytes while contact with liquids poor in alkali seems to render them torpid. It is interesting to collate with this the further fact observed by Fodor [16] that an increased alkalinity of the blood renders animals much more resistant to organisms. The bearing of these observations upon the pathology of fever is obvious. In cachexia, however induced, the blood is also less alkaline than normal, but this may be due in part, at least, to the poverty of blood with which this condition is associated.

2. I have stated in an earlier part of this article that in almost all the anæmias the alkalinity of the blood is reduced. This is true of simple anæmia, of pernicious anæmia, and of leucocythæmia. The causes of the reduction are probably several. Seeing that the red cells contain a considerable quantity of alkali any reduction in their number must of itself entail a corresponding reduction in the total alkalinity of the blood. This explanation is supported by the fact that in cases of pure chlorosis—i.e., where the hæmoglobin is alone reduced—the alkalinity of the blood is not diminished, may, indeed, be increased. Deficient oxidation of the tissues no doubt plays a part just as it does in fever. Uric acid has been found in the blood in anæmia by von Jaksch [17] and Spiro [18] has demonstrated the presence of lactic acid in leucocythæmia. It is also possible that in anæmia the mineral constituents of the blood are reduced just as the cellular are, the blood being really more watery than normal. Here, again, I would point out that the diminished alkalinity of the blood cannot be made a reason for the administration of alkalies in anæmia. Iron and arsenic are both drugs which tend to reduce rather than to increase the alkalinity of the blood, yet the utility of both in anæmia is undoubted and the mineral acids are probably more helpful than alkalies.

3. In all the toxic conditions mentioned above the alkalinity is also diminished. In jaundice this is to be attributed to the presence of bile acids in the blood. In uræmia the reduction is often very marked, and this is the more noteworthy as renal disease does not by itself lead to any diminution of alkalinity. The fact is an additional argument, were one needed, against the ammonia theory of uræmia. In diabetes the alkalinity tends to be always low, but is especially reduced if coma supervenes. Its occurrence is accounted for by the entrance into the circulation of oxybutyric acid.

4. I come finally to certain "diathetic" conditions in which the investigation of the alkalinity of the blood is of peculiar interest. I refer to gout and rheumatism. In the former the alkalinity of the blood is stated to be lower than in any other disease, but this is just what we would expect from the excess of uric acid in the circulation. The old "acid" theory of acute rheumatism lends to the determination of the alkalinity of the blood in that disease a special importance. Is the alkalinity reduced? The reply is definitely and almost unanimously in the negative. Pfeifer, von Jacksch, and Drouin have all failed to find any reduction, and with their observations those of the present writer agree. This is confirmatory of the results of special analyses, Garrod [19] having failed to find any uric acid in the blood in acute rheumatism, while Salomon [20] has proved the absence of lactic acid. In chronic articular rheumatism and in rheumatic arthritis the alkalinity would appear to be sometimes reduced, but this may be due to accompanying anæmia.

I may refer lastly to the effects of drugs on the reaction of the blood. These bring out very clearly the existence of the regulating mechanism. It has been found almost impossible to affect the reaction of the blood for any length of time by the administration of acids or alkalies by the mouth. Hoffmann fed pigeons on substances yielding only an acid ash, but found that alkalies were retained in the blood to form salts with the acids. This occurs when more acid is administered than would suffice to neutralise all the alkali in the body. Lassar [21] got only slight effects from the administration of even large quantities of alkalies and acids, and his results have been confirmed by those of other observers. A few of the so-called "alteratives," such as arsenic and phosphorus, have been found to produce some diminution of alkalinity, probably by lessening tissue oxidation. In carbonic oxide poisoning a considerable reduction occurs for the same reason; in this case the presence of considerable quantities of lactic acid in the blood has been demonstrated (Araki). Our comparative inability appreciably to alter the reaction of the blood by means of drugs is rather remarkable, although therapeutically somewhat disappointing.

I may now, in closing, briefly summarise the contents of this article. We have seen that the clinical determination of the alkalinity of the blood is rendered difficult alike by physical and by chemical considerations, that the existing methods have been devised with the object of surmounting these difficulties, and that these methods are for practical purposes only two in number—the titration method (Landois) and the glazed litmus paper method (Haycraft and Williamson). I believe I have been able to show that the results furnished by the second of these methods are unreliable, inasmuch as the reaction is determined largely by the viscidity of the blood examined, a factor of great inconstancy. The titration method is, therefore, alone available. The results of this method apply to the alkalinity of the blood as a whole, but only when titration is carried out slowly and at the body temperature. We are thus left in ignorance as to how much of the alkali in any given case is contained in the blood-cells and how much in the plasma. We have seen, further, that the clinical application of this method has brought into prominence one striking fact regarding the alkalinity of the blood—its constancy. That this constancy is maintained both in health and disease and is apparently the result of a regulating mechanism. The alterations in disease are practically always in the direction of diminution of alkalinity, induced probably by the entrance of acid substances into the circulation. Thus, lactic acid is present in leucocythæmia, carbonic oxide poisoning, &c., uric acid in gout and in anæmia, oxybutyric acid in diabetes, and bile acids in jaundice. In addition to these conditions we saw that the alkalinity is reduced in uræmia, in all febrile states, and in anæmias with the exception of chlorosis. The reasons of the reduction in these different diseases I have briefly discussed. Lastly, we have seen that, owing to the existence of the regulating mechanism, we are practically unable materially to influence the reaction of the blood by the administration of drugs. As the number of available observations by different workers is now fairly large, and covers nearly every known disease, we are entitled to conclude that not much more will be made out by existing methods, and on reviewing the practical results of the information acquired one is bound to confess that they are rather meagre. These results certainly throw side lights, even if of a negative character, on some pathological questions, but as regards direct clinical bearing it is, I think, evident that the information to be derived from the estimation of the alkalinity of the blood in any given case is hardly commensurate with the expenditure of time and trouble which such estimation entails.

Edinburgh.

[15] Castellino and Cavazzani: Gazetta degli Ospitale, 1833.
[16] Fodor: Centralblatt für Bakteriologie und Parasitenkunde, 1895.
[17] Von Jaksch: Ueber Uric Acidæmie. Deutsche Medicinische Wochenschrift, 1890.
[18] Spiro: Zeitschrift für Physiologische Chemie, Band i.
[19] Garrod: Reynolds's System, first edition.
[20] Salomon: Jahresbericht für Thierchemie, Band x.
[21] Lassar: Archiv für die gesammte Physiologie, Band lxxiv.

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FIVE CASES OF INJURY TO THE EYE FROM CHIPS OF STEEL.

BY GEORGE F. HELM, M.D., F.R.C.S. ENG.,
OPHTHALMIC SURGEON TO THE CORNWALL INFIRMARY.

CASE 1.—In the spring of 1894 I was consulted by a man aged forty-five years who gave the following history. He had been struck nine years previously with a piece of steel, which entered the right eye and destroyed all vision. The tension of the eye was normal and the pupil was occupied by what was presumably a cataract. He had never had the slightest pain in this eye or the fellow till five days before I saw him, when on hammering an old gas-pipe a piece of rust flew into his left eye. No wound was made by this, but when he first came to me he had iritis and nothing else—neither corneitis nor conjunctivitis. The anterior chamber was perfectly clear. The iris did not act to light and was of a different colour from the iris of the right eye. He was placed under vigorous treatment for a week, when, as the eye made no progress towards recovery, I advised the removal of the blind and injured eye. On examining this eyeball after enucleation I found embedded in the centre of the vitreous chamber a piece of steel seven-sixteenths of an inch long and one-sixteenth of an inch broad. It had a firm fibrous capsule in which it lay. In a week's time the sympathising eye was apparently quite well and has remained so ever since.

CASE 2.—I was asked to examine an old man recently for the purpose of finding out whether he should undergo a cataract extraction. I first examined him by the aid of a lamp, and looking at his left eye I observed, "Why, you have a fly in your eye." "No, sir, that is a piece of steel." I inquired how long it had been there and he replied, "Twenty-five years." And, sure enough, there was a piece of steel sticking into his eyeball just over the ciliary region. I felt it with the probe and became convinced of the truth of his statement, and I need hardly say that I did not advise that any operation of extraction should be done either to the injured eye or to the uninjured, which had also become cataractous, as I supposed, from sympathetic ophthalmia. Moreover, there was a very bad perception of light in either eye.

CASE 3.—On Nov. 30th, 1895, a man aged sixty-two years came to the Truro Infirmary complaining of his vision. The right eye had been wounded by the point of a knife forty years previously; a portion of steel having broken off remained in the organ. He went to a medical man, who said he had removed the object, but the patient never saw the piece, from which I concluded that it had been pushed in instead of being withdrawn. Examining him ophthalmoscopically under atropine I saw the foreign body in the centre of the pupil, but behind it. The lens was perfectly clear and the foreign body appeared to be embedded in the front of the vitreous. It did not change its position with movements of the eye, but it effectually obstructed all central vision. He had hypermetropia of the other eye, which I rectified with spectacles, and advised him to carry the foreign body to his grave with him. At any rate, I refused to be a party to its removal, although I did suggest that he should allow me to clear up all uncertainties by submitting to enucleation. This he wisely declined.

CASE 4.—A young man came to me in August last, being sent by Dr. Davy of Penzance, and was said to have a piece of steel in his right eye. It was plainly visible as a bright sparkling chip lying on the surface of the iris midway between the pupillary margin and the periphery in its lower segment. After instilling eserine I took him to the Truro Infirmary, where by means of the magnet I succeeded in withdrawing the foreign body through a small hole which I made in the cornea, enlarging the wound through which the piece had entered, making it just large enough to admit the point of the magnet. No aqueous escaped, so its withdrawal was accomplished without any difficulty, and the eye in a few days was perfectly normal in every respect, though when I operated, twenty-four hours after receipt of injury, mischief was commencing in the iris as shown by circum-corneal injection and slight discolouration of the iris.

CASE 5.—Another patient came about the same time as the preceding, having been hit by a piece of steel in the left eye, where it remained. His age was about fifty-five. It was perfectly visible, being about one-eighth of an inch long, and was sticking in the sclerotic about a quarter of an inch below the circumference of the cornea just over the ciliary region. I did not feel it with a probe, for not having any instrument at hand by which I could draw it out I feared that I might be the means of pushing it into the interior of the globe; and it seemed to be underneath the conjunctival opening it had made, so that there was nothing to take hold of. I took him to Truro Infirmary, where the magnet could be used and where all preparations had been made, and when I opened the eyelids to commence operation the piece of metal was no longer visible. I endeavoured to find it with the point of the magnet, of course not placing it in the interior of the globe, and not finding it I desisted from any further attempt at its removal. In the course of a few weeks all damage to the eye had disappeared, but one day on examining it under homatropine I saw two oblong opacities apparently on the surface of the lens and corresponding in position to the direction which the foreign body had apparently taken. I have since examined this man and I cannot find any trace of injury to the interior of the eye. Of course he has the scar in the conjunctiva and sclerotic.

Truro.

CASE OF TETANUS.

BY ERNEST ST. CLAIR HENRIQUES,
STUDENT OF MEDICINE, ABERDEEN UNIVERSITY; FORMERLY MEDICAL MISSIONARY OF THE UNIVERSITIES' MISSION TO CENTRAL AFRICA, BONDI.

[Introduced by Professor ALEX. OGSTON.]

IN the month of July, 1894, a little girl aged twelve years was brought by her mother to Mr. Herbert Ley, the medical officer in charge of the Magila Station of the Universities' Mission to Central Africa, German East Africa. She complained of pain in the throat, and when told to open her mouth for examination refused. The medical officer thought that it was obstinacy on the part of the child and came to the conclusion that she was shamming, the throat seeming normal. He, therefore, prescribed a dose of salts. (I may mention that the little patient had to walk nearly a quarter of a mile to and from her own house, and did so quite unaided.) She would not take the draught prescribed by Mr. Ley, and even when force was applied refused to open her mouth. Two days after this Mr. Ley was asked to visit the girl and found her exhibiting all the symptoms of tetanus. There were a board-like feeling about the recti, stiffness of the muscles of the neck, and frequent spasms accompanied by sardonic grins. The following history was obtained. The patient had been quarrelling with a companion, and the pair were about to come to blows when the guardian of girl No. 2 came out of her house, sided with her, and struck the patient with her open palm on the back of the neck. No pain was felt at the time and the child played about as usual for two full days. At the end of this period the pain and stiffening of the throat appeared. The family history was as follows. Her father died from chronic nephritis, elephantiasis, and tuberculous disease of the lungs. Her mother and brother were quite healthy. It is the custom for African children to have their heads shaven, and Mr. Ley and myself thought that a wound might have been caused by the knife, razor, or bit of broken glass used for this purpose. Every part of the body was carefully examined, but no scratch or wound could be discovered. A day after we saw her she died. Now arose a very interesting medico-legal point. Did the child die from the blow? The case was tried before the priest in charge of Magila, a native priest, and another African. The charge brought against the woman was witchcraft. Mr. Ley gave his evidence, which was that the girl died from tetanus and that a blow had been given. The woman received the benefit of the doubt and was not taken before the German authorities, but had to pay a fine of eighty rupees as compensation.

Aberdeen.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF TRICHOPHYTIC ONYCHOMYCOSIS OR INFECTIVE GROWTH INVOLVING THE MATRIX OF THE NAILS.

By THOMAS OLIVER, M.D. GLASG., F.R.C.P. LOND.,
PHYSICIAN TO THE ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE.

IN December last I was consulted by a young woman nineteen years of age on account of elevation of the nails of the right thumb and forefinger, which were so lifted from their bed that they continually caught against objects and were thus the cause of considerable pain and annoyance to her. The nail of the left thumb was similarly affected, but to a slighter degree. There was a lengthy longitudinal split of the nail of the right thumb slightly internal to the middle line. The matrix of this and the other nails already mentioned was extremely swollen; it was six or seven times the normal thickness. It looked like a pad of hard tissue, was extremely brittle, and was seated under the anterior half of the nail towards its inner aspect. In the development of the disease the first thing observed by the patient was projection of the matrix in front of the nail for a short distance as a hard dense substance, then by degrees the nail became lifted upwards. At this stage severe pain of a throbbing character had been experienced. This was before the nail split. The anterior half of the nail now became pale and the nails of the affected fingers brittle and somewhat distorted. When I first saw the patient there was no difficulty in recognising the disease as a mycotic growth involving the matrix of the nail, for the disease had extended to other fingers; she was otherwise quite healthy. She was not suffering from any skin affection, nor was there any form of ringworm amongst other members of her family. How she became affected still remains a mystery. She was ordered iron and arsenic capsules; the matrix of the nails was scraped, the dead portions of nails removed, and unguentum hydrargyri nitratis mitius inserted twice daily. In addition the finger ends were thoroughly scrubbed with liquor hydrargyri bichloridi; and later, as progress was slow, the fingers were steeped in weak bichloride of mercury and spirit solution. On two or three occasions I applied strong liquor potassæ to the dense hard matrices; this softened them, and I was able to scrape away large portions of the matrix for a considerable distance under the nail, thus facilitating the application of the germicides already mentioned. As the outermost third of the nail was now dead it was readily removed a day or two afterwards. Within three or four weeks of treatment fairly vigorously maintained an illness which was not only painful but extremely annoying and rapidly extending to the other fingers was brought to a successful issue. Portions of the matrix removed by scraping and of the nails were carefully examined microscopically for fungi, but beyond observing a hyaline condition of the brittle matrix, and here and there a few large altered epithelial cells, no micro-organisms were detected. The history, the mode of invasion of the illness, and its yielding to the particular treatment leave little doubt that the case was one of ringworm of the nails, or tinea unguium.

Newcastle upon-Tyne.

ARREST OF HÆMORRHAGE IN ESTLANDER'S OPERATION.

By C. HAMILTON WHITEFORD, M.R.C.S. ENG., L.R.C.P. LOND.

I HAVE been greatly struck by the very free loss of blood which often accompanies this operation as usually performed. This hæmorrhage, though not absolutely dangerous to life, must greatly retard the convalescence of a patient already weakened by a long illness. To considerably lessen this hæmorrhage the following method is of service. After exposure of the thoracic wall to be removed the intercostal arteries are compressed by ligatures on each side of the pieces of ribs to be removed. An aneurysm needle is passed unthreaded from the middle of one intercostal space, entering the pleural cavity, to the space above, and brought out close to the upper border of the rib above. The needle is then threaded and withdrawn. This ligature when tied contains below the rib a bunch of intercostal muscle, which acts as a plug in the intercostal groove, thereby obliterating the vessels. The entire thickness of the chestwall between the two rows of ligatures is then removed close up to the ligatures, the bleeding being confined to the divided ribs, where time is no object; periosteal flaps to cover in the cut ends of rib tend to prevent subsequent necrosis, probably due to infection of the bone by the pus from within, which I have seen occur in several cases. The ligatures should be of material which is easily absorbed to prevent the possible necessity of future removal.

Plymouth.

PRELIMINARY NOTE ON A NEW CRANIAL REFLEX.

By WALKER OVEREND, M.A., M.D. OXON., B.SC. LOND.,
PHYSICIAN TO THE TOTTENHAM HOSPITAL; LATE RADCLIFFE TRAVELLING FELLOW.

WHEN the skin of one-half of the forehead is gently tapped with the edge of an ordinary wooden stethoscope a twitch in the lower eyelid of the same side may be observed. This is obviously due to the implication of a certain strand of fibres in the orbicularis muscle. If the percussion be made a little stronger the upper portion of the orbicularis is also takes part in the response, while severe percussion elicits in addition a simultaneous movement of the opposite lids. Slight tapping in the middle line of the forehead is followed by twitchings on both sides. In many instances, however, and particularly after some amount of education or when the skin of the forehead is abnormally sensitive, gentle stroking alone is sufficient to evoke the reaction. The signal area is embraced by three lines: one running to the hair in the middle line from the root of the nose, the second drawn along the eyebrow to the external angular process, and the third completing the triangle and passing from the outer extremity of the second line to the upper extremity of the first. In general terms, however, it may be said that the region involved is the skin covering the frontal bone. It may therefore be termed the frontal reflex, although in chorea and certain cranial neuralgias accompanied by hyperæsthesia of the cutaneous surface the movement may be produced by tapping the skin as far back as the parietal eminence. The skin supplied by the infra-trochlear nerve is also capable of inducing the reflex. I believe it is a true skin reflex and not a periosteal reaction. It is not produced by communication of physical vibrations, since the area appears to be definite, and severe percussion sometimes fails altogether. It is not due to the shadow cast by the finger or stethoscope (light reflex) since it occurs among the blind. The motor path is identical with that of the conjunctival reflex; the sensory channels lie in the supra-trochlear and supra-orbital divisions of the frontal nerve, while the centre is probably located in the mid-brain. Stimulation of one particular portion of the area is followed by a contraction of the corrugator with elevation of the eyebrow. In moderately severe cases of hemiplegia, attended with hemianæsthesia, the frontal reflex is absent on the paralysed side during the first few days after the seizure, although the patient may be able to close the eye perfectly; but if the skin of the normal half of the forehead be stimulated the orbicularis muscles of both sides contract. The absence of the reflex, therefore, appears to be a result of the anæsthesia. As far as I can ascertain the above reflex has not been hitherto described.

Edmonton.

SUPERNUMERARY FINGERS AND MALFORMATION OF THE FŒTAL HEAD.

By BARTHOLOMEW LANGRAN, L.R.C.P. EDIN., L.R.C.S. IREL.

IN December, 1892, I attended a woman in her eighth confinement. The child was a female and well developed, but had a supernumerary finger attached by a thready pedicle to

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the ulnar border of each hand. The same woman's fourth child, when born, had one extra finger similarly attached. The father was born with a supernumerary finger on each hand, the cicatrices left after their removal being still plainly visible, and his sister was born with two supernumerary fingers and an extra toe.

I have also seen two cases of malformation of the fœtus precisely similar to that described by Mr. Craig in THE LANCET of Feb. 8th. One of them I observed whilst attending at the Coombe Hospital, Dublin, and the other whilst engaged in private practice in Devonshire.

Liverpool.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

CASES ILLUSTRATING THE DISEASES AND THE SURGERY OF THE APPENDIX VERMIFORMIS.

(Under the care of Mr. HERBERT W. PAGE.)

THESE five instructive cases are in continuation of a former series by the same surgeon published in THE LANCET of Aug. 4th, 1894. In the first three operation was undertaken on account of suppuration in the region of the appendix, and it will be noted that in the first two when the abscess was incised from the iliac region no attempt was made to remove or even to find the appendix, yet recovery ensued. This is in accord with the usual experience of surgeons, the intensity of the process of inflammation being sufficient to close any opening which may have formed. The third case is very instructive and Mr. Page's remarks will be attentively read. Of the cases of recurring appendicitis the appendix was removed after the fourth attack in No. 4, whilst in No. 5 it is difficult to tell from the history the number of attacks from which the woman had suffered. Both cases were, therefore, such that firm adhesions of the appendix to surrounding parts might have been expected; yet the adhesions were slight, and the operations were completed without much difficulty. This is in great contrast to the dense adhesions sometimes found and which occasionally prevent the removal of the appendix. We are without sufficient evidence as to the formation of abdominal hernia after operations undertaken for the relief of symptoms due to appendicular disease, but Dr. Hawkins[1] has pointed out that it is an important consideration when operation is recommended for the removal of the appendix for recurring attacks of inflammation.

CASE 1. *Acute abscess from perforation of appendix; concretion found in abscess; rapid recovery.*—A man aged twenty-five years was admitted to hospital on Oct. 18th, 1894, and gave a history of having had an attack of pain in the right inguinal region twelve months before, with vomiting and obstruction of the bowels. He was under treatment for a week and took medicines. He recovered completely and continued well until Oct. 15th, when he felt sick at his dinner, and after the meal was over he began to have pain of a dull aching character in the right ilio-inguinal region. The pain increased and became acute and in the evening he was violently sick several times. From that moment he became steadily worse and his bowels were confined. Flatus was, however, passed occasionally. On admission the abdomen was seen to be uniformly distended and below the level of the umbilicus there was no noticeable movement in respiration. The abdominal wall was decidedly tense, and he complained of acute pain and tenderness on the slightest touch. Pressure could be borne least well at a spot an inch internal to, and on the same level as, the right anterior superior iliac spine—at the spot, in fact, which is often called MacBurney's. No distinct tumour could be felt because of the abdominal rigidity. His temperature was below 100°F., his pulse was 72, and he did not seem very ill. On Oct. 20th, before operation, the surface hyperæsthesia had much diminished and the diaphragm moved, but deep inspiration hurt him in the right inguinal region. The resistance here was decidedly more marked than in other parts of the abdomen. As soon as he was anæsthetised distinct deep-seated fulness could be felt and the area was unquestionably dull on percussion. The abdomen was opened in the usual place, the point of acute tenderness being taken as the centre of a short oblique incision, and a quantity of stinking pus was evacuated from a localised cavity; and with the pus came a concretion of the size of a small horsebean. Progress was uninterrupted until Nov. 5th, when it became necessary to explore and give exit to a small loculated collection of pus which had been keeping up a feeling of discomfort in the wound; after this the cavity closed rapidly, and the patient was discharged well on Jan. 5th, 1895. It is a noteworthy fact that on the day after the operation his bowels were opened spontaneously four times.

CASE 2. *Acute suppuration from perforation of appendix; symptoms simulating general peritonitis.*—A lad aged fourteen years was admitted to hospital on Nov. 24th, 1894, so extremely ill with symptoms, as they seemed, of general peritonitis that he was taken to the operating theatre as soon as Mr. Page saw him. On the 12th of the month the lad had been suddenly seized with acute pain in the right inguinal region. He vomited and a medical man saw him. He was constipated and medicine was given him. A lump was said to have been felt at the site of the pain. Hot poultices were applied and in four days the symptoms passed off and he was able to return to work. The lump, however, remained. On the 19th he had another attack, accompanied by sickness and constipation; but the pain on this occasion spread from the right side, where it was worst, to the whole abdomen. Poultices were again applied and enemata were administered, but they were retained and were without result. He continued in much the same state until the 23rd, although the lump was thought to be rather smaller. On the 24th he was said to have become very much worse, and he was then brought to the hospital. When Mr. Page saw him, soon after his admission, the boy had a pinched, anxious, abdominal expression and was obviously very ill. On inspection the abdomen was seen to be uniformly distended; it was exquisitely tender and did not move the least in respiration. He complained of severe pain. With the exception of the right inguinal region, which was rather more tense and resistant than other parts, the abdomen was everywhere tympanitic. Sickness had been worse during the night and he was absolutely constipated. All the symptoms pointed very strongly to general peritonitis, and Mr. Page said it was a question whether the abdomen ought not at once to be opened in the middle line, but remembering that in other cases the symptoms of general peritonitis had been as marked as in this case, and had really been due to acute local suppurative peritonitis alone, he should certainly be guided by the examination under an anæsthetic, and that if there was decided fulness in the right inguinal region he would make an opening there. As soon as general anæsthesia allowed of thorough examination it was obvious that there was a large deep-seated resistant swelling in the right inguinal region extending towards the middle line. A three-inch incision was therefore made through the abdominal wall at a point an inch and a half internal to the anterior superior iliac spine and running obliquely inwards and downwards. The deeper muscles were soon seen to be infiltrated with inflammatory exudation, and on opening the peritoneum the parts first exposed were found adherent to each other. Gentle exploration with the finger soon gave exit to foul-smelling pus, and the manner of the flow suggested that it came from a circumscribed space rather than from the general peritoneal cavity. No attempt was made to explore the abscess. No concretion was discovered and the appendix was not seen. A drainage-tube was inserted. The boy bore the operation well and expressed himself as feeling better in the afternoon. He passed a good night, was but little sick, and his bowels acted spontaneously several times. No food was given by the mouth until the following day. On the 26th he was not quite so well, was sick several times, and complained a good deal of abdominal pain. Hot fomentations relieved him. Abdominal distension and tenderness were, however, very much less, and it was not thought necessary to make any further exploration. After this day he began to improve and both

[1] Diseases of the Vermiform Appendix.

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local and general conditions went on favourably. On Dec. 11th there was an adverse change, for his temperature, hitherto normal, rose to 101° F. and he had much abdominal pain. For the next few days he was very ill, was in much pain, and frequently sick, and mouth-feeding had to be stopped. The abdomen also was again slightly distended and tympanitic. There was much difficulty in securing action of the bowels, and the administration of enemata gradually succeeded in bringing away a quantity of old hard fæces. This episode in his progress towards recovery was indeed due to bowel disorder, possibly because he had had too much food too soon, but it did not interfere with the state of the wound, the steady lessening of discharge from it, and its gradual closure. The patient was perfectly well when he left the hospital on Jan. 31st, 1895.

CASE 3. *Acute abscess from perforated appendix; symptoms suggestive of perforated ulcer of the stomach; unrelieved by operation; death.*—A young woman aged twenty-one years was admitted into a medical ward on May 25th, 1895. A fortnight before she had been seized with pain in the abdomen, chiefly in the right iliac region. There was no sickness and the pain soon disappeared. Four days before coming to the hospital the pain had returned with greater severity. There was then much vomiting but no blood. On admission the girl was evidently very ill. The abdomen was motionless, distended, and tympanitic; the apex of the heart was felt in the third interspace, and the area of liver dulness was much diminished. The conclusion having been come to that the patient's symptoms were due to a perforation of the stomach Mr. Page was sent for on the morning of the 26th and opened the abdomen in the middle line above the umbilicus. Some serous fluid escaped, but there were no signs of peritonitis, and the stomach was perfectly healthy. At this stage of the operation the girl's condition seemed too bad to warrant any further exploration, although Mr. Page remarked at the time that there was a suspicious sense of resistance in the right iliac region, and with the finger in exploring the abdomen he thought that a barrier of adhesions could be felt in the cæcal environment. The wound was therefore closed and the patient returned to bed. She rallied from the operation and was comparatively free from pain afterwards, while the abdomen became decidedly less distended. No definite swelling was even then to be felt in the iliac region, but inasmuch as her temperature remained above 101° F. the propriety of exploring the appendix region was considered. Unhappily, this was frustrated by her becoming rapidly worse on the night of the 30th and she died on the morning of the 31st. At the necropsy a large circumscribed abscess was found in the right iliac region. A perforation was found at the extremity of the appendix and there was a concretion lying loose in the abscess. The appendix was a long one, and was adherent to the transverse colon at the right of the middle line. There was no general peritonitis.

CASE 4. *Recurrent attacks of appendicular colic; removal of appendix in a period of quiescence; rapid recovery.*—A girl aged eighteen years was admitted to hospital under the care of Dr. Lees on July 7th, 1895. With the exception of rheumatic fever some years ago she had always enjoyed good health. In February, 1894, she was suddenly seized with pain in the right side of the abdomen and on the next day she was unable to sit up. She was sent to the hospital and was an in-patient for five weeks. She was free from trouble for twelve months and had a second attack in February, 1895, which kept her in bed for four weeks. She was constantly sick during this attack, although there had been no vomiting during the first. In April she had a third attack, but of less severity. She was now admitted with her fourth attack. This had begun suddenly on July 29th, while she was in a train, with sharp pain in the right side some distance below the ribs, whence it seemed to shoot right across the stomach. She lay in bed at home for a week before coming to the hospital and then complained of sharp pain in the right flank. Her temperature was 100·5° F. There was great tenderness in the right iliac fossa, and an area of dulness on percussion could be mapped out in this region. Her right thigh was flexed. Opium was ordered internally and an ice-bag to be applied to the site of abdominal tenderness every alternate two hours during the day. The pain and tenderness rapidly diminished, and although on the evening of the 8th her temperature was 103° she was considerably better on the 9th and continued to make progress until the 14th, when a sharp return of pain called for the reapplication of the ice-bag which had been discontinued on the previous day. There was no constipation, but an enema was administered occasionally. The notes of Aug. 2nd record that she had now perfectly recovered, and that it was thought desirable to transfer her to the surgical wards with a view to removal of the vermiform appendix, which had clearly been the cause of her several attacks of abdominal illness. Accordingly, on Aug. 3rd the patient was put under an anæsthetic, and the abdominal wall being thereby relaxed unquestionable resistance and fulness to a slight degree were to be felt in the right iliac fossa in comparison with the other side. The abdomen was opened by the same incision as in the other cases. The appendix was found without difficulty, and the thin adhesions which joined its edge to the cæcum having been divided it was seen to be two inches long, and was firm, rigid, and swollen from its tip to a point about a third of an inch from its cæcal end, where it was distinctly narrowed. A ligature of twisted silk having been tied round it on the proximal side of the constriction it was then removed. The stump was cleansed by scraping and washing with a 1 in 5 carbolic solution. The wound was closed by tiers of sutures. The after-history was altogether uneventful, and the temperature was normal throughout until her discharge on Sept. 4th. Section of the removed appendix showed that its walls were greatly thickened and that at the point of visible narrowing there was stricture of its lumen. No obvious cause of this constriction was found, nor was there any trace of a concretion. The girl has remained in good health since she left the hospital and has been free from all discomfort.

CASE 5. *Recurrent attacks of appendicular colic; removal of appendix; recovery.*—A woman aged twenty-six years was admitted to hospital on Nov. 18th, 1895; she had for a period of ten years been subject to occasional attacks of abdominal pain, tenderness, sickness, and constipation, which had kept her in bed for periods varying from ten to thirty days. Eighteen months ago she had a bad attack, but the character of it does not appear to have been suspected, for treatment was directed to dealing with dysmenorrhœa by dilatation of the cervix and curetting the uterus. This did her no good, and when Dr. Handfield-Jones saw her in an attack which began on Nov. 17th, 1895, he suspected that the appendix was really the cause of it, for he felt a distinct lump in the appendix region and could find no disease of the female organs. Accordingly, he sent her to St. Mary's Hospital, where further observation confirmed his diagnosis by the existence of high temperature, abdominal distension, local pain and tenderness in the cæcal region, with marked rigidity of the abdominal wall, and the history clearly pointed to similar attacks before. By Dec. 11th things had become completely quiet, and on that day the abdomen was opened by the usual oblique incision. The appendix was found with difficulty, as it lay below and behind the cæcum. It was nearly three inches long and felt thick, rigid, and tense, with a very thick mesentery. This and some neighbouring adhesions bent it on itself. It was ligatured and removed close to its origin. It contained some drops of semi-fæcal pus and showed evidence of an obstruction in its lumen close to the site of section. Its walls, and more especially the mucous coat, were greatly thickened. Recovery was uninterrupted, and the patient was allowed to be up after spending four weeks in bed. The sense of persistent discomfort or pain which she had all along felt in the iliac fossa completely disappeared from the moment of the operation, and her general health has in consequence much improved.

Remarks by MR. PAGE.—The history of Case 1 differs somewhat from that which is commonly heard in cases of abscess from perforation of the appendix in the fact that there had been an attack twelve months before the patient came to the hospital. That attack, of course, may have had nothing whatever to do with his appendix; but, on the other hand, it may have been due to a sort of abortive attempt on the part of the concretion to make its escape, or there may have been a concretion at that time which escaped after a struggle into the cæcum, and the one which was found was really of later formation. In persons prone to the formation of appendix concretions it is conceivable that one or more may from time to time escape by a harmless route before one at length chances to do so by perforation and sets up acute suppuration in the neighbouring peritoneum. The point

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of interest in Case 2 was the singular way in which the symptoms simulated those of a diffuse general peritonitis from septic infection, and had it not been that under an anæsthetic the indications of local mischief were so well marked the abdomen would almost certainly have been opened in the middle line. Within a few days of this case being under my care I heard of another exactly like it, in which, unfortunately, the opening was made in the middle line, and in the search for the local inflammation which had been due to perforated appendix the general peritoneum became infected and the patient died. It is a good rule, therefore, to search for indications of local mischief under an anæsthetic and to be guided by them, but the surgeon will not be guided aright unless he appreciates the fact that acute local inflammation may induce symptoms commonly regarded as diagnostic of general peritonitis. A median opening in this instance would very probably have led to disaster. There can be little doubt that the case was one of perforation of the appendix, followed by local inflammation and suppuration. It was the boy's first attack, and was characterised by all the severity which the symptoms in such cases usually present. Let it be noted that as soon as the local condition was relieved the bowels acted spontaneously, a tolerably sure indication that the cause of the constipation had been removed and that the chief danger was overpast. I look on Case 3 as one of the most deplorable cases I have ever had to deal with, but it must not be withheld from publication. The diagnosis of perforated ulcer of the stomach having been made, it would, perhaps, have been difficult for any surgeon not to act upon it, more especially as the great tympanites seemed to point to air in the peritoneal cavity; but had I followed my own rule, unfettered by any previous diagnosis, I am satisfied that the iliac resistance, albeit not very marked, would have led me to open the abdomen there. And I now regret that I did not proceed to explore in this region as soon as the opening in the middle line had failed to discover the supposed cause of the symptoms. The girl's life might have thereby been saved. Apart, however, from these mistakes both in diagnosis and treatment the case very powerfully illustrated the manner in which a local acute circumscribed abscess from appendix perforation may simulate a general peritonitis from a totally different cause, and again the lesson is enforced that the appendix should never be forgotten in all cases of the kind. Case 4 was one of the simplest and seemingly least dangerous forms of appendix disease, and most amenable to successful treatment by operation in a period of quiescence. The appendix, for some reason or other, had come to have its lumen narrowed, and, therefore, it became liable to be distended by its own retained mucous secretion. Inflammation ensued in and around it, the condition was aggravated by interstitial swelling, and thence arose various symptoms due to appendicular colic, to a recurrence of which the patient must have been exposed so long as the appendix remained. Individually and collectively these cases may be regarded as fairly typical of the various consequences of disease of the appendix. Increasing experience shows that the affections of the appendix which call for surgical intervention fall into two main classes—those in which there is perforation by a concretion and those in which the appendix has had its lumen temporarily obstructed by kink or cicatricial contraction so as to cause retention of mucus or fæces, which thereby lead to inflammation in and around it. The former cases are the more serious as regards danger to life, and they call for early operative measures in order to evacuate local collections of pus; the latter are to be dealt with in periods of quiescence when the disturbance of adhesions is less likely to be dangerous and aseptic conditions can be more readily secured. This important fact, moreover, must never be forgotten, that the local inflammations which are the result of appendix disease may in their symptoms very closely simulate those of a more diffuse peritonitis, and that in all doubtful cases of abdominal mischief, especially in young persons, it is well to bear the appendix in mind. The aphorism in regard to hernia, "When in doubt operate," may well give place in cases of serious abdominal disorder to this, "When in doubt think of the appendix." On this point I have nothing to add to the remarks which were made in connexion with the former series of cases, for the later cases which I have seen, both in hospital and private practice, have only confirmed the opinions then expressed both as to diagnosis and the need for surgical interference.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Malignant Tumour of the Spermatic Cord.—Syphilitic Testes in a New-born Infant.—Diffuse Cystic Disease in Both Breasts.—Concretion in a Galactocele.—Insidious Marrow Infection in Mammary Carcinoma.—Three Cases of Ulcerative Appendicitis.

AN ordinary meeting of this society was held on March 3rd, Dr. NORMAN MOORE, Vice-President, being in the chair.

Mr. J. H. MORGAN exhibited a Malignant Tumour together with the Left Testis and Spermatic Cord from which it was growing. The patient, aged thirty-nine years, had noticed it ten weeks before admission after a slight strain. It presented an irregularly nodulated surface with a free projection at the lower extremity and lay in the inguinal canal, being attached at its base to the cord in that region. The tumour had no other connexions and was removed entire, the cord being ligated above at an apparently healthy spot. No enlarged glands were detected, but a portion of the external oblique was attached to it. The patient recovered quickly from the operation. On examination of the tumour it proved to be a scirrhus-like mass arising in the inguinal canal and involving the cord secondarily and surrounding the vas deferens. The thickening of the cord was due to extensive infiltration of the lymphatics with cancer cells. The testis and epididymis were not affected. The microscope showed it to consist of spheroidal cells occupying the meshes of a trabecular network. There is no record in the Pathological Society's Transactions of any identical tumour in this situation.—Mr. SHATTOCK and Dr. KANTHACK said that they regarded the microscopical specimens shown as sarcoma.—Mr. BOWLBY remarked on the rarity of malignant tumours of the cord.—Mr. MORGAN, in reply, said that the tumour clinically resembled a sarcoma rather than a carcinoma. It was referred to the Morbid Growths' Committee.

Mr. H. B. ROBINSON showed the Testes of an infant aged four months at death. The infant had well-marked congenital syphilis and had suffered from snuffles with a rash on the nates and face. Before death the child presented the typical "old man" appearance, and there were fissures at the angles of the mouth and sores on the face and buttocks. Both testes were of stony hardness and were enlarged and smooth. There was much thickening of the tunica albuginea and of the septa. Microscopically there was diffuse cellular infiltration, which in places had developed into firm fibrous tissue.—Mr. ROBINSON showed for Mr. PITTS a second specimen from a child aged five years in whom there was no definite history of congenital syphilis, but microscopical examination confirmed its syphilitic nature.—Dr. MOORE remarked on the very few illustrations of the internal morbid anatomy of congenital syphilis to be found in the London museums.

Mr. H. B. ROBINSON likewise brought forward a specimen of Diffuse Cystic Disease of both Breasts which had been removed from a woman aged forty-nine. She had had six children, and there was no family history of malignant disease. In March, 1894, she noticed a lump in the right breast; there was no pain and no discharge from the nipple. On examination the whole right breast was found to be enlarged and indurated, with evidence of multiple cysts. There were no definitely enlarged glands in the axilla. The left breast presented much the same features. The right organ was amputated on Aug. 20th, 1894. On section it showed a general fibrotic condition, riddled with cysts varying from a microscopical size to that of a walnut, and containing the usual greenish brown mucoid fluid; there were no intra-cystic growths. On microscopical examination changes were found which were compatible with chronic interstitial mastitis, and, in addition, there was evidence of carcinomatous change. The patient was, therefore, urged to have the left breast amputated, and this was done on Nov. 28th, 1894. This breast was found to be riddled with cysts and microscopically showed evidence of chronic interstitial mastitis, but there was no malignant disease. Mr. Robinson, after referring to the literature of the subject, said that, pathologically speaking, he thought that every cyst developed

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in relation with chronic inflammatory change. Whether the cysts were single or multiple was purely a matter of accident. He believed that there was a causal relation between the cyst formation and the malignant growth, and these cases of cystic breast should, therefore, be treated radically.—Dr. NORMAN MOORE mentioned a case which he had seen in the last three weeks. The patient, an elderly woman, presented a tumour in the left breast, and on examination was found to have a small tumour in the neighbourhood of the pylorus. He wondered if there were any connexion between the two.—Dr. SNOW said that these cysts continued for years without pain; they began before and continued during the period of devolution, and he did not regard them as inflammatory.—Mr. ROBINSON, in reply, said that he regarded the extensive development of connective tissue as an indication of chronic inflammation.

Mr. WATKINS-PITCHFORD showed a specimen of Encysted Fatty Concretions in a Breast affected by Chronic Mastitis. The patient was a married woman aged forty-six and was admitted to the Bridgnorth and South Shropshire Infirmary in May, 1894. She complained of "some lumps growing in the left breast." She had been married twenty-two years, and during that time had given birth to ten children, all of whom she suckled till sixteen or eighteen months of age. Twelve months before admission, when suckling her youngest child, then twelve months old, she noticed that the milk came with difficulty from the left breast and that some small hard lumps had appeared. She continued to suckle the child for another six months. The patient was emaciated and dyspeptic. The left breast was tender; no secretion could be squeezed from the nipple; in the lower part of the organ were two or three wedge-shaped masses of indurated gland tissue. Embedded in these and well outside the areola were three or four hard nodules of rounded outline; retraction of the nipple was produced by dragging centrifugally on these nodules; puckering of the skin could not be induced, nor was the skin adherent; there were one or two distinctly enlarged but soft glands in the left axilla. The right breast exhibited some signs of chronic mastitis, but was free from nodules. The breast was amputated and the axilla cleared out by the surgeon under whom the case had been admitted. The patient was now in good health. The affected portion of the breast presented appearances which were in the main those typical of chronic mastitis; there were numerous minute cysts containing milk in various stages of inspissation. Embedded in the gland tissue were several round nodules of cheesy consistence; the largest of these had been preserved for inspection. Each nodule had occupied a distinct cavity lined with smooth membrane and possessing dense, fibrous walls. The nodules were shelled out with the greatest ease after incision of the cyst wall. Whether these fatty concretions had been formed within smaller ducts or terminal alveoli could not be determined. The enlarged axillary glands presented the appearances of simple induration. The weight of the largest concretion was ten grains; it consisted entirely of fat, no other proximate physiological principle being evident. The microscopic appearance was that of amorphous greasy masses. It was difficult to explain why such concretions should not occur more commonly in cases of chronic mastitis. He attributed their formation to the continued secretion of milk under the stimulus of prolonged lactation after many of the ducts had been obliterated by the contracting fibrous tissue of chronic mastitis. The more solid constituents of the milk had been retained and impacted in the cyst cavities whilst the fluid part had filtered itself away into the lymphatic channels of the gland.

Mr. TARGETT showed a Concretion in a Lipoma of the Breast. He thought it a degenerative lesion in the lipoma and not formed in the ducts. He had recently seen a case similar to that shown in which the concretions were of the size of hazel nuts and fell out of the cysts when they were opened.—Mr. SHATTOCK regarded Mr. Targett's specimen as one of fat necrosis. The concretions in Mr. Watkins-Pitchford's case arose from inspissation; they were in reality nothing but human butter.

Dr. HERBERT SNOW read a paper on the Insidious Marrow Infection of Mammary Carcinoma. He exhibited a portion of the left humerus, with microscopic sections from this, and from a lumbar vertebra, of a woman dying with carcinoma of the right mamma, and made some remarks on the development and course of this peculiar marrow infection, which took place in all cases of ordinary mammary carcinoma in the female with very rare exceptions. In average breast-cancer the marrow received deposit concurrently with marked enlargement of the axillary lymph-glands—i.e., within three months of inception. But in the "atrophic" class the infection might be delayed many years. The humerus on the side of the disease was usually the bone first implicated, and the sternum next in order. The special 'sternal symptom" was a slowly developed prominence at the junction of the upper and middle portions (photographs exhibited). It was not to be looked for until after the lapse of twelve months, generally within the second year; was painless, and gave rise to actual tumour formation only in 1 or 2 per cent. It might be simulated by natural conformation, was pathognomonic of marrow deposit only when developed under observation and when associated with gnawing pains in the arm, scapulæ, and loins. After an operation the marrow deposit might give no trouble whatever for five or six years; it then emitted metastases into the blood current, and the patient succumbed to "recurrent" visceral disease. The condition ceased to be "insidious"—i.e., generated tumour, fracture, or (spinal) distortion—only in 2·4 per cent. of mammary carcinomata. It accounted for the prolonged liability of breast cancer to "recurrence," accentuated the functions of the marrow as a hidden nidus for malarial and other microbes, with no palpable symptom, throughout long periods of time; and tended to prohibit the extensive operative measures sometimes invoked. Reference was made to his researches published in THE LANCET of March 7th and 14th, 1891, and the *British Medical Journal*, vol. i., 1892; also to a paper by Mr. Stephen Paget in THE LANCET of March 23rd, 1889, as summarising previous knowledge on the subject.—Mr. C. BEADLES agreed that these deposits were frequently to be found in the humerus and, less frequently, in the ribs and vertebræ. He quoted some illustrative cases to show the method of dissemination of carcinoma in this manner.—Mr. SHATTOCK said that it was a matter of common knowledge that the bones were often affected with secondary growths in cancer.—Mr. BOWLBY thought that Dr. Snow deserved credit for emphasising the fact that secondary deposit often took place in bone marrow without giving rise to a definite tumour.—Dr. SNOW, in reply, said that the lumbar vertebræ might be used as a test in breast cancer; the secondary cancer would generally be found in them, but in uterine cancer this was not usually the case.

Dr. WILLIAM HUNTER described three cases of Ulcerative Appendicitis which had recently come in succession under his notice illustrating the very varying pathological features and clinical course which this condition presented. The first case was that of a boy aged thirteen, admitted into Charing-cross Hospital under the care of Dr. Green for abdominal uneasiness, diarrhœa, intermittent fever, and sweatings. He subsequently developed great enlargement of the liver with hepatic tenderness, and systolic bruits over the heart changing in character. The condition found was slight thickening of the appendix, which was bound down to the back of the cæcum, and ulceration at one part with limited inflammation and sloughing of the adjacent tissues. There was no general peritonitis, but there was marked suppurative phlebitis, the portal vein and its branches within the liver being filled with pus; there were numerous pyæmic abscesses in the liver and slight recent ulcerative endocarditis of the mitral valve. The second case was that of a stout woman aged thirty-seven, admitted with acute general peritonitis under the care of Mr. Boyd. On operation a fæcal abscess cavity containing eight ounces of pus was opened into over the appendix and an inch and a half of greatly thickened and inflamed appendix of the thickness of the thumb removed, along with a fæcal concretion of the size of a plum-stone which was found in the abscess cavity. She died the following day. There was found marked thickening of the appendix, which was embedded in a mass of thickened tissues around the lower end of the cæcum; the appendix was over three and a half inches in length, and close to the cæcum there was an ulceration, surrounded by dark sloughing tissues, in which had lain the fæcal concretion. This ulceration formed the posterior boundary of the abscess cavity, which was opened into on operation. The abscess cavity communicated freely with the proximal as well as the distal end of the appendix. The mucous membrane lining the distal end of the appendix was in a dark sloughing condition. There was extensive suppurative

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peritonitis and localised collections of pus were found in the right hypochondrium and between the small intestines and the transverse colon. The third case was that of a child aged six years admitted with a history of abdominal pain and tenderness under the care of Dr. Abercrombie. There were tenderness and rigidity of the abdominal walls over the lower part of the abdomen, with intermittent fever. The condition found was an extensive collection of pus in the lower part of the abdomen, with secondary collections in both hypochondria. The appendix lay with its free end attached to a portion of the ileum over the brim of the pelvis. Its distal end was extensively ulcerated, dark in colour, and almost completely gangrenous, and separated from the proximal end which was healthy. In all three cases there was ulceration due probably to the impaction of a fæcal concretion in the appendix, although in only one of the three cases could the concretion be found. The effect of the impaction had varied in the three cases, and the variations were influenced by two chief factors—the original situation of the appendix, whether in immediate relation to the peritoneal cavity, where it lay over the brim of the pelvis, or behind the cæcum. In one case the effect of ulceration was to place the peritoneal cavity in connexion with the cavity of the appendix and through it with the cæcum, with the result that extensive suppurative peritonitis had been set up. In the second event the result was to excite inflammation and thickening of the appendix, with corresponding perityphlitic changes as in Case 2. In this case the disease had obviously, from the size of the appendix and the thickening around, run a lengthened course. The occurrence of phlebitis, as in the first case, was, so to speak, an accident liable to occur in any case of ulcerative appendicitis; otherwise the first case belonged to the class of what might clinically be termed the *perityphlitic*, as distinguished from the *peritoneal* varieties of the disease.—Dr. NORMAN MOORE said that he had recently witnessed a necropsy in which the end of the appendix was found open, a pus track was found leading up to the mesentery, and abscesses were found in the liver; one of these had burst superiorly, leading to the formation of a sub-diaphragmatic abscess.—Mr. DOUGLAS DREW mentioned another case in which a patient had been operated on for hepatic abscess and one had been drained. A few days later the patient died and post-mortem the left lobe of the liver was found riddled with small abscesses, the quadrate lobe being also affected. The vermiform appendix was found matted down by adhesions, but there was no active inflammation. The portal vein was found to be thrombosed and this thrombosis was traced down to the region of the appendix.—Dr. NEWTON PITT referred to a case he had seen of a small child with a sub-diaphragmatic abscess which originated in connexion with perityphlitis. With regard to the nature of the concretions the evidence was rather that some of them were formed secondarily, being composed of masses of leucocytes with epithelial débris.—Dr. HAWKINS (Reading) referred to a case of pelvic abscess with left empyema and recent vegetations on the mitral valves, which he had seen in association with perityphlitis.—Dr. ROLLESTON confirmed the statement that it was not uncommon to find no concretion at all in these cases.—Dr. HUNTER, in reply, said he thought that in most cases the presence of fæcal matter in the tube was the cause of a catarrhal condition which induced the concretion. The small concretion shown was a mass of hard fæces.

The following card specimens were shown:—

Dr. PARKES WEBER: (1) Sarcoma of Both Kidneys of a Child; (2) Localised Fatty Change in Liver.

Mr. H. B. ROBINSON: Lymphangioma in Parotid Region.

Dr. HUNTER: (1) Pyæmic Abscess of Liver; (2) Cancerous Thrombosis of Portal Veins.

Dr. WALSHAM: Tuberculous Ulceration of the Ileum, with perforation.

Dr. CYRIL OGLE: Acute Pancreatitis, with fat necrosis.

Mr. KANTHACK and Mr. STEPHENS: Alkaline Serum Agar as a New Culture Medium.

Mr. C. S. WALLIS: Tumour from Ischio-rectal Region of a Dog.

Mr. J. H. TARGETT: Concretion in a Lipoma from the Breast.

Dr. VOELCKER: (1) Absence of Gall-bladder; (2) Rupture of Aorta.

CLINICAL SOCIETY OF LONDON.

Idiopathic Muscular Atrophy in a Boy.—Accidental Vaccinia.—Contraction of Forearm.—Congenital Dislocation of Hip replaced by Operation.—Congenital Dislocation of Hip with Peculiar Features.—Ectopion Vesicæ.—Double Facial Paralysis.—Osteitis Deformans.—Multiple Lipomata.—Congenital Enlargement of Forearm.—Tumour of Median Nerve.—New Method of dealing with Cut Extensor Tendons.

AN ordinary meeting of this society, devoted to the exhibition of clinical cases, was held on Feb. 28th, Dr. BUZZARD, President, being in the chair.

Dr. J. WALTER CARR showed a case of Idiopathic Muscular Atrophy in a boy aged ten years, who was the youngest of thirteen children, of whom ten were living. There was no family history of paralytic affection of the muscles. Two years ago the boy gradually became weaker, the weakness being chiefly of the legs. The muscles of the face, shoulder-girdle, and upper arm were also much wasted, but the tongue and ocular and masticatory muscles were normal. There was a good deal of lordosis, which disappeared when the patient was sitting down. The weakness of the legs suggested some relationship with pseudo-hypertrophic paralysis.—The PRESIDENT said that it was an interesting case, exhibiting symptoms of a disease usually considered to be a family disease, but here a sole member was affected. He had previously pointed out the possibility of these cases being of an infective nature, and the family distribution would in that case only point to a common source of infection. The fact that the patient had suffered from measles a year previously favoured the idea of infection.

Dr. ABRAHAM showed a child aged three years who presented two ulcers, one on the eyelid and the other on the chin, on a hard base, with the characteristic appearance of accidental vaccination. She was said to have been vaccinated as an infant, but there were no marks on the arms. She had been sleeping with a younger brother who had been successfully vaccinated ten days previously, and probably that was how she was inoculated.

Mr. BATTLE showed a boy aged twelve years who last year fell down and Fractured both Bones of the Forearm. It was put up in splints, but six weeks later, when the splints were removed, there was a large slough of the anterior surface of the forearm with contraction of the flexors, so that he was at present unable to extend the wrist or the fingers. He had been under treatment at St. Thomas's Hospital for this condition for about five months, but so far no improvement had been obtained. The contraction was not influenced by anæsthesia. The forearm and hand had become atrophied, but the electrical reactions were all normal except in the case of the interossei.—Mr. W. G. SPENCER pointed out that this was the condition to which Volkmann had given the name of "ischæmic paralysis," under which name he suggested this case ought to be described.—Mr. ARBUTHNOT LANE said that he had treated two cases which were similar, but not so bad. He had adopted multiple section of muscles and tendons with a tenotome.—Mr. OPENSHAW said that he had seen two similar cases at the Orthopædic Hospital; in both multiple divisions with a tenotomy knife were practised. In another case, under Mr. Tubby, the contraction followed cicatricial shortening of the muscle belly itself.

Mr. OPENSHAW showed a case of Congenital Dislocation of the Hip, which had been replaced by operation. The patient was a girl aged three years who came to him presenting the typical appearances of congenital dislocation of the hip. He cut down into the joint, removed a portion of the iliac bone at the upper and back part of the acetabulum, and got the head back into the cavity. The shortening, which was previously one and a half inches, was thereby reduced to three-quarters of an inch, and she could walk with a slight limp. The movements of the joint were free in almost every direction, it being four months since the operation. He pointed out that unilateral cases were more favourable for operation than when the dislocation was bilateral. The head could not very well be replaced in the cavity before two and a half years of age on account of the condition of the acetabulum.

Dr. J. TAYLOR and Mr. BALLANCE showed a case of Congenital Dislocation of the Hip with Peculiar Features. The

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patient was a woman aged twenty-three years, who came under Dr. Taylor's care for epilepsy. He noticed that she was lame, and on examining her he found there was (probably) congenital dislocation of the hip. Mr. Ballance concurred in this view. It was peculiar in that there was very great mobility of the joint, this being associated with abnormal mobility in the corresponding knee as well as in the opposite knee. The limb was much shortened with corresponding lateral spinal curvature. There was much grating on moving the femur, and it sometimes seemed to slip into a hole as if there were the remains of an acetabulum.—Mr. WALLACE said that after seeing this patient walk and noticing how easily she did so he was disposed to congratulate her on having escaped operative interference.—Mr. GORDON BRODIE recalled the case of a lad with a similar condition who could walk several miles without inconvenience, and under these circumstances he, too, was inclined to doubt the desirability of operative interference.—Mr. BATTLE said that the instance under consideration resembled cases after injury to the epiphysis where there was consecutive atrophy of the head and upper part of the neck of the bone.—The PRESIDENT suggested that the condition might possibly be the remains of an attack of infantile paralysis.—Dr. TAYLOR said that that idea had occurred to him, but he had not been able to elicit any information pointing to any such attack.—Mr. OPENSHAW recalled an interesting case of Genu Recurvatum, a condition which was attributed to faulty intra-uterine position, and he pointed out that most cases of congenital dislocation of the hip occurred in children born with a breech presentation, observing that this patient presented two of the features attributed to faulty intra-uterine position. Before two and a half years of age Lorenzo now preferred to apply extension, but between that age and ten he still advocated this operation. He did not think it was a justifiable operation after ten years of age.—Mr. TARGETT pointed out that the head of the bone having been outside the cavity would explain an absence of roundness.—Dr. TAYLOR, in reply, said that the child, the eldest, was born after a tedious labour, but the mother did not know whether the presentation was abnormal.

Mr. H. B. ROBINSON exhibited a case of Ectopion Vesicæ. The patient was a child aged four years who presented the affection in its simplest form.

Mr. TURNEY next brought forward a case of Double Facial Paralysis. The patient was a woman aged twenty-five years, with no history of rheumatism or of any particular disease, who after exposure to a draught three months ago developed facial paralysis on the left side. Six weeks later, the condition on the left side remaining permanent and without conscious exposure, paralysis suddenly supervened on the other side of the face as complete as in the first instance. There was actually complete loss of expressional and volitional movements on both sides, but no affection of taste or hearing.—The PRESIDENT observed that such cases were very rare, though he had seen one following influenza.

Dr. H. G. MACKENZIE showed a case of Osteitis Deformans in a man aged forty-eight years who dated his illness from a fall eight years ago. He presented marked bowing of the tibiæ and femora, with much thickening of the bones. There was marked deformity of the thorax, and the skull was very "bossy," its size being increased upwards as well as antero-posteriorly. Since December of last year he had on three occasions experienced a snap followed by pain and local swelling, but no crepitus, twice over the ribs, and on the last occasion in the leg. In view of the resemblance of this affection to osteomalacia he had tried a course of red bone marrow, but though the treatment seemed to have relieved the painful manifestations the condition of the bones was apparently unaltered.

Mr. BIDWELL showed a case of Multiple Lipomata. The patient was a strongly built man twenty-three years of age who had a tumour in the palm of one hand and on the neck ever since he could remember. Seven years ago something was done to the tumour on the neck, and soon after several other tumours appeared, and he now presented numerous tumours, varying in size from a pea to a walnut, all over the body. The skin over the large tumours was freely movable.—Dr. ABRAHAM said he had made sections of one tumour and found chiefly very vascular fibrous tissue, with signs of inflammation. He did not think it could be described as a case of molluscum fibrosum.—Mr. CLEMENT LUCAS said some of the larger tumours were probably fatty, but the smaller ones appeared to be fibrous.

Mr. MAKINS showed a case of Congenital Enlargement of the Forearm in a young woman twenty-eight years of age, who presented marked enlargement of one forearm. The affection (nævoid?) appeared to involve only the deeper veins. He asked whether it was a simple venous nævus or one involving the lymphatics. She complained of pain and numbness in the limb and the swelling was entirely confined to the forearm, not extending into the hand.—Mr. CLEMENT LUCAS said he had no doubt it was a case of veno-lymphatic nævus. He referred to a patient, a girl between twelve and fourteen years of age, who presented this condition, there being a large spongy mass extending from the thigh to the ankle. He excised it in part very freely, and a year later she returned in order that he might repeat the operation in respect of the remainder.

Mr. F. C. WALLIS showed a girl aged twenty-two years on whom he had operated for a Tumour of the Median Nerve last January. The tumour was two and a half inches long. It began just at the wrist joint, going along the course of the nerve up the arm. The hand showed all the signs of paralysis of the median nerve, and was not unlike a claw. The tumour, which was fibrous, was removed, and the two ends of the nerve united by sutures, the hand being flexed to a right angle. The hand was fixed in this position for seventeen days and then gradually straightened. The subsequent course of the case was one of gradual but uninterrupted recovery, and the hand was quite as useful as it ever had been.

Mr. WALLIS also showed a case in which he had operated for Cut Extensor Tendons. The patient was a lad aged nineteen years, who four months ago cut the extensor tendons of the ring and little fingers of the left hand whilst opening a window. When seen three months after he had no power to extend the two outer fingers. The cut tendons could be felt under the skin. An incision was made over these and the proximal ends of the tendons sought for, but were not found. The two cut tendons were then stitched to the common extensor tendon of the middle finger and the wound closed. The wound healed up perfectly and the boy could now fully extend all the fingers, so that it was difficult to say that there was any difference from the normal.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.

Cardiac Dyspnœa.—Exhibition of Specimens.

AN ordinary meeting of this society was held at the Great Northern Central Hospital on Feb. 13th, Mr. CHARLES KING being in the chair.

Dr. ALEXANDER MORISON read a paper on Cardiac Dyspnœa, in which he dealt with the following points:—1. Respiration has an important influence upon circulation: inspiration and expiration, the alternate action of the thorax and abdomen aiding, the former chiefly the venous and the latter the arterial circulation. 2. In addition to systole and diastole, gravitation and the spiral or screw shape of the projected and travelling blood column are important factors in the propulsion of that fluid. 3. Cardiac dyspnœa is modified in character by the situation and nature of the causal lesion, tricuspid regurgitation being a more powerful factor than pulmonary valvular disease in the right heart, except when the lesion has been suddenly established. 4. There are important differences in the conditions underlying dextral and sinistral cardiac dyspnœa, due mainly to the different relations which the two sides of the heart bear to the lungs. 5. The essential cause of cardiac dyspnœa is neither pulmonary congestion nor defective aeration, but a reflex transmitted from the stimulated heart to the accelerant fibres of the pneumogastric nerve. In this Dr. Morison agreed with Dr. D. B. Lees. 6. The key to the explanation of Cheyne-Stokes respiration which he preferred to name "tachy-bradypnœa" is the exhaustion of the patient and blunting of the cardio-respiratory reflex.—Dr. HARRY CAMPBELL agreed with Dr. Morison as to the very important *rôle* the respiratory movements have on the normal circulation, and made no doubt that the forced respirations which so often succeed a period of cardiac inactivity, as, for instance, a fainting fit, served to help the heart to recover its balance. He referred to the occurrence of dyspnœa so frequently at night, and felt inclined to think that this is greatly due to the shallowness of respiration

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during sleep. The dyspnœa of maids-of-all-work, of mountain climbers, &c., also appeared to be due, to some extent at least, to the fact that severe exertion caused the respiratory muscles to contract irregularly during the effort, with the result that the aid to circulation produced by the normal respiration was interfered with. The dyspnœa produced by high arterial tension was also a form of interest. Dr. Campbell finally remarked on the dyspnœa associated with great dilatation or hypertrophy—e.g., in the case of "cor bovinum" in children—and said that the dyspnœa in such cases was doubtless due to the mechanical conditions produced by the heart occupying so much space and interfering with the proper play of the lungs.—Dr. LEONARD GUTHRIE felt inclined, while keeping Dr. Morison's explanations well in view, to rest comfortably on the old teaching that the cause of dyspnœa was in all cases the same, although the preliminary conditions bringing the cause into play may well vary. Whether in the case of an athlete after a race or a bedridden case of heart disease, the reason that the person became dyspnœic was that by over-exertion or the equivalent cause his blood became wanting in oxygen, and as a consequence the medullary respiratory centre was stimulated and set the mechanism into play whereby the oxygen equilibrium was re-established. In the case of the cardiac patient the mechanism could not be brought into play so easily. Even the movements that produce orthopnœa are common to all the conditions of dyspnœa. He thought that the influence played by gravity on the circulation was a factor which ought to be kept in mind. In bed a large heart will fall backwards and so impede the respiratory movements, causing the patient to sit up, and so relieve the breathing, and at the same time the extraordinary muscles of respiration can be brought into play.

Dr. FREYBERGER showed an interesting specimen of Congenital Malformation of the Heart. A boy eleven months old had been admitted to hospital suffering from basic meningitis. On admission there was a loud systolic murmur over the pulmonary conus and an equally loud sawing systolic murmur at the apex. There was only occasionally slight cyanosis. There was no clubbing of fingers or toes, and no periostitis of the tibiæ. At the necropsy the following conditions were found. Two descending venal cavæ, the right normal, the left running down on the left side of the œsophagus and entering the coronary sinus; there was a thin left innominate vein and a left vena azygos double the width of the right, which entered the left descending cava, the left vena intercostalis suprema being a tributary of this abnormal azygos vein. The aorta, one inch wide, was inserted on the extreme right, whereas the pulmonary artery—a narrow vessel without any conus whatever—was pushed to the left and backward and upward, edged in between the wide aorta and the small auricular process of the left atrium. The heart itself was inserted at a right angle with the ends of the body. The distended right auricle and the hypertrophied right ventricle formed the anterior aspect of the heart; the apex cordis belonged to the right ventricle. The left ventricle was undergrown and was situated behind the right. On opening the heart the muscle of the right ventricle was found to be half an inch thick, that of the left only a quarter of an inch. The membranous part of the interventricular septum was entirely absent, the defect thus formed admitting the tip of the little finger. The ostium pulmonale was pushed upward and backward, and was very steep and narrow; two vulva-like thickened valves converted the ostium into a narrow slit scarcely admitting a crow-quill. The foramen ovale was also patent. The lungs were not undergrown—in fact, they overlapped the heart almost completely. The pulmonary circulation must have been carried on through the stenosed pulmonary ostium, the aorta and ductus Botalli, and very likely through the perhaps widened anastomoses of the anterior and posterior of the bronchial arteries with the ramifications of the pulmonary artery. The aorta had at all times contained mixed blood.

MIDLAND MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—The Modern Treatment of Diabetes.

THE sixth ordinary meeting of this society was held on Feb. 19th, at the Medical Institute, Birmingham, the President, Dr. UNDERHILL, being in the chair.

Mr. J. E. HICKMAN showed a young man in whom Ligature of the External Iliac Artery for Femoral Aneurysm had been successfully performed.

Mr. BARLING showed a patient with Hernia Cerebelli following Trephining for Cerebellar Abscess. The hernia, which a month ago was as large as a moderate-sized orange, is now shrinking and epithelium is growing over it, whilst it is reduced to less than half the original size.

Dr. KAUFFMANN showed two brothers aged twenty-seven and twenty years respectively. Both suffered from Nystagmus which appeared in each case as the sequel of progressively and slowly failing eyesight. The weakness of vision commenced at about the age of twelve. Of a large family these two brothers were the only persons affected; there was no similar disease in the parents and no hereditary syphilis. The optic discs showed slight atrophy with smallness of the vessels. In one of the patients there was a posterior polar lens opacity. There was central scotoma, but no peripheral field contraction. Dr. Kauffmann looked upon the cases as being of a degenerative nature, due to insufficient capacity for repair and resistance on the part of the nerve elements of the retina.

Dr. FOXWELL exhibited a Stomach with a Pyloric Tumour causing a Stenosed Pyloric Orifice, this being a narrow slit about a quarter of an inch long. It was taken from a man aged twenty-eight who had suffered from malaria several times, and eighteen months ago had had syphilis. Symptoms of dyspepsia arose five months prior to admission, and during the last eleven weeks he had lost two stones in weight. He had frequent vomiting and painful peristalsis with great distension. This prevented palpation of the tumour, but on rectal feeding being adopted it became very evident, moved freely with inspiration, and could be displaced three inches in a lateral direction. It was situated entirely to the right of the mid-line, half way between this and the umbilicus. It was considered peculiarly suitable for operation; a time for this was fixed, but acute collapse carried off the patient in twenty-four hours. A few days previously to death much "coffee grounds" was vomited, but there was no ulceration of the mucous membrane or sign of acute gastritis. The tumour proved to be scirrhous in nature with a very small amount of cellular growth. There were no adhesions or secondary tumours.

Mr. J. E. TROUT showed a puny, wizened child from whose urethra a large Calculus had been successfully removed.

Mr. BARLING showed a Fibro-sarcoma of the lower end of the Femur from a patient aged twenty. The growth was first noticed about three years ago, after a sprain of the knee, and it increased but slowly until six months ago, when the rate of increase became more rapid. An exploratory incision revealed the character of a very firm sarcoma, and this was confirmed by microscopic examination at the time. The limb was therefore amputated at the junction of the upper and middle thirds. The clinical history and the naked-eye appearances, as well as the microscopic examination, pointed to a growth with a low degree of malignancy, and it seemed, therefore, justifiable to amputate through the shaft of the bone rather than at the hip-joint.

Dr. MALINS showed the Uterus of a patient aged fifty-nine years which he had removed the day before by Vaginal Hysterectomy. The body was filled with carcinoma, the cervix being quite intact and clearly defined. The uterus weighed four ounces and a half.

Dr. SAUNDBY read a paper on the Modern Treatment of Diabetes. He laid stress upon the fact that diet is the only treatment about which there is practically no dispute. He further emphasised particularly the desirability of giving sufferers from diabetes as much carbohydrate food as could be assimilated. He also drew attention to the gross adulteration with starch of many so-called diabetic foods.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on Feb. 13th in the Royal Infirmary, Newcastle-on-Tyne, Dr. J. DRUMMOND, President, being in the chair.

Dr. LIMONT showed a boy nine years of age whose whole skin was affected with Lichen Tuber Planus, the eruption having commenced on the wrists and the inside of the thighs

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eleven weeks ago. On the shoulders typical papules of polygonal shape, waxy, and with shining tops were present. The lining of the prepuce and the glans penis and the inside of the mouth were free from eruption. On the inside of the knee the skin was thickened and pigmented.—Dr. LIMONT showed another case, a middle-aged man, whose Skin Eruption was of twelve weeks' duration. Pigmentation was very marked, the spots over the sacrum being almost jet black; in other parts they were faded and looked like a specific eruption. Outside of the pigmented areas there were typical lichen papules.

Dr. OLIVER and Mr. WILLIAMSON showed a woman aged fifty-nine years, who during the past five years had several attacks of Gall-stone Colic. After the last attack the jaundice persisted in spite of prolonged and active medical treatment. The only physical signs were jaundice and a tender and enlarged liver. The abdomen was opened in the linea semilunaris and adhesions round the gall bladder were found. In it there were six gall-stones and some clear mucus; two gall-stones were felt freely movable in the dilated ducts; as they could not be pressed on into the duodenum they were squeezed back into the opened gall-bladder, which was then sutured to the abdominal wall and drained with a tube. Bile flowed freely for the first four days and then in gradually diminishing quantities. The wound was entirely healed in a fortnight.

Dr. MURPHY showed a Gall-stone removed by incision according to Morison's method from the common duct of a stout patient fifty-six years of age who had suffered from several attacks of gall-stone colic followed by jaundice. The history and the presence of jaundice had to be relied on in making a diagnosis, for no local physical signs were present. The gall-bladder was collapsed and small. The stone found in the common duct was too hard to be broken and could not be moved. The opening in the duct was not sutured, but was allowed to drain through an opening in the back at the lower end of the kidney. Ten days after the operation the patient was in an excellent condition, but she died suddenly on the fourteenth day, and as there was no post-mortem examination the cause of her death remained unknown.—Dr. MURPHY also showed a man twenty-eight years of age who had undergone two operations for Hydatid Disease of the Kidney. He was now in good health and appeared to be cured.—Dr. MURPHY also showed a woman on whom Gastrostomy was performed three years ago on account of difficulty in swallowing. She was now well and her power of swallowing was satisfactory.—He also exhibited an Ovary removed per vaginam, because it was adherent to and low down in Douglas's pouch.

Mr. WILLIAMSON showed some cases of Rodent Ulcer. The first patient was a woman who had had an ulcer the size of the palm of the hand excised from her forehead, the gap in which was filled up with a certain amount of success by means of Thiersch grafts. The second patient was a man at the base of whose ring finger there was an ulcer which commenced in a wart and had infected the supra-trochlear gland. Another case was a woman forty-two years of age with an ulcer of five years' duration which occupied the side of the face and head, and had involved the eye, nose, and ear. It began in a small wound due to an injury and had the typical glazed, red base and firm margin of rodent ulcer.—Mr. WILLIAMSON also showed a case of Orbital Thrombosis occurring in a middle-aged man who on Dec. 1st noticed a little red spot on his upper lip. A few days later a bleb formed on his eyelid. On Dec. 15th his eye was protruded, his eyelids were bluish, and he could not close them. An incision into the orbit external to the globe allowed a few drops of pus to escape. No diminution of swelling followed the operation. A second opening made above released nothing, but the swelling subsided after it. The patient's general condition was very bad during the height of the attack, but fortunately the thrombosis became limited to one cavernous sinus and had only resulted in the loss of one eye. Death not infrequently followed these cases, in which infection spread from a septic focus on the lip to the orbital veins.

Dr. DRUMMOND exhibited a Cirrhotic Liver with a large anastomotic vein in the round ligament taken from a man who died of cirrhosis from the liver. The gland was markedly contracted, and a vein as thick as a lead pencil could be seen running in the round ligament to the abdominal wall, and so maintaining a free communication between the portal and systemic circulations. A curious feature was that the man had frequent attacks of mental impairment, becoming stupid and somnolent. There was also hæmaturia, and this association of symptoms suggested kidney mischief, but the kidneys were healthy. The stupor was preceded by constipation and rise of temperature and subsided after the action of a purgative.

LIVERPOOL MEDICAL INSTITUTION.

Stricture of the Œsophagus.—Cervical Pachymeningitis.—Temporo-sphenoidal Abscess.—Epilepsy from Lead Poisoning.

A MEETING of this society was held on Feb. 27th, Dr. RICHARD CATON, President, being in the chair.

Dr. RAWDON read notes of a case of Stricture of the Œsophagus in a woman aged forty-eight years. The symptoms were peculiar on account of the recurrent character of the attacks of difficulty in swallowing, which, from being comparatively slight, became at times almost complete. Gastrostomy was performed, but the patient died in thirty-five hours. At the necropsy a piece of orange pulp, shaped like a cigar, was found to be impacted in the œsophagus immediately above the stricture. The stricture was due to infiltration of new growth in the submucous and muscular tissue. Sarcomatous nodules were found in the peritoneum, pericardium, and both pleuræ.

Dr. CARTER showed a sailor aged fifty-nine years who, in October, 1889, had his fifth and sixth cervical vertebræ dislocated by a blow with an iron shackle. He did not afterwards remember anything until he found himself in hospital in Boston, U.S.A., on Christmas Day, 1889. Nine months after the accident his legs were atrophied and would not bear the weight of his body; the left forearm was utterly useless, being flexed on the arm and in a state of spastic rigidity; the right upper extremity was also useless and he was unable to feed himself; his chin touched the sternum and there was severe pain in the arm, leg, and chest. An operation was then performed and the fifth cervical vertebra was found to be displaced, its spine being one inch to the right of the middle line. The posterior arch of the vertebra was removed and the dura mater was found to be in a condition of hæmorrhagic pachymeningitis. At present the patient is able to walk, but his head is still bent forwards and the muscles of his left shoulder are atrophied; there is a small narrow strip of anæsthesia on the ulnar side of the left hand.

Mr. R. W. MURRAY related a case of Abscess of the Temporo-sphenoidal Lobe following left Middle Ear Disease in a girl seven years of age. The abscess was opened and drained, an ounce of pus being evacuated. A month later, when the child had apparently quite recovered, she had a convulsion affecting the right leg, right arm, and right side of the face, with loss of consciousness. The left temporo-sphenoidal lobe was again explored, and deep in the brain a drachm of pus was reached. At first she improved, but next day there was a recurrence of convulsive movements of the right side of the body including the face, with retraction of the head, and she died two days later. At the necropsy the left temporo-sphenoidal lobe was found intensely inflamed and softened, and both lateral and fourth ventricles contained pus.—Mr. RUSHTON PARKER, Mr. DAMER HARRISSON, and Mr. LARKIN made remarks on the case.

Dr. ALEXANDER DAVIDSON read a paper entitled Epilepsy and other Cerebral Symptoms resulting from Lead Poisoning; also a reference to the New Act enjoining Notification of Lead Poisoning to the Home Office. He described a very severe case of lead poisoning occurring in a man who had been working in very confined places whilst painting the interior of a ship and was admitted to hospital on a Monday complaining of headache and behaving in an imbecile manner; he soon had an attack of delirium and epileptic fits, became unconscious, and died on the Friday, four days after admission. A chemical examination of the brain showed the presence of lead, and it was estimated that half a grain was the amount present in the entire brain. Lead was also present in the liver and intestines. As there was no kidney disorder the fits could be fairly considered to be due to lead poisoning.—Dr. BRADSHAW said that as the amount of lead present in the brain was so small the convulsions might be due to anæmia.

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ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF STATE MEDICINE.

The Causes of Crime and the Treatment of Criminals.

A MEETING of this section was held on Feb. 7th, Dr. J. M. REDMOND, President, being in the chair.

The PRESIDENT, in his address on the Causes of Crime and the Treatment of Criminals, mentioned that criminal statistics, published since 1877, showed a falling off in the number of convictions in England, Wales, and Ireland, but the diminution was not so marked in the case of Scotland. He attributed this change for the better to the improvement of education and of the conditions under which the bulk of the working classes live. Legislation which multiplied minor offences was to be avoided owing to the danger of corrupting the innocent by causing them to associate with habitual criminals, and an exaggerated case was quoted in which a girl in Hong-Kong was arrested for being unprovided with a lantern when out of doors. The treatment of crime must come more and more under the jurisdiction of the medical profession, as modern science shows that much crime is due to hereditary causes, and modern philosophy recognises that much crime is the consequence of unhealthy surroundings.

Dr. GRIMSHAW said that it was not customary to make the subject of an address the ground of a discussion, and he rose not to open a discussion but to move a vote of thanks to the president. It was his (Dr. Grimshaw's) duty to draw up and arrange the criminal statistics of Ireland, and he believed that the subject dealt with in the paper was of great importance to medical men. For instance, drunkenness and the increasing numbers of crimes arising out of drink were matters that deeply concerned the medical profession, for he was convinced that medical practitioners, exercising so large an amount of control as they did over the bodily and mental health of the community, might do much to prevent drunkenness. Too much importance had been assigned to heredity as a cause both of drunkenness and of criminality.

Mr. COX in seconding the vote of thanks said that the questions raised in the President's paper were too much ignored by the medical profession, and he went on to advert to a class of crimes that might be punished sufficiently by compelling the offender to give compensation to the injured party.

Reviews and Notices of Books.

A Manual of Pathology. By JOSEPH COATS, M.D. Glasg., Professor of Pathology in the University of Glasgow. Third edition. London: Longmans, Green, and Co. 1895. Price 31*s.* 6*d.*

THE appearance of a new edition of Professor Coats's standard text-book will be welcomed alike by teachers and students of pathological anatomy, for the book is one which is pre-eminently characterised by accuracy of description and soundness of judgment. There are many moot points in pathological science which require to be discussed with impartiality and deliberation, and it has always seemed to us that few writers upon this subject have dealt so judicially with such topics as does Professor Coats. He recognises to the full the importance of attaining a correct appreciation of the nature and causes of morbid processes, and his definition of pathology as being the "scientific study of disease" marks the high plane in which his treatment of his subject moves. Another excellent feature in the book is the equitable division of its subject matter. It covers the whole ground, but it is difficult to assert that any particular branch receives undue attention. Hence its excellence as a text-book and the testimony it bears to the painstaking industry of the author. For in the rapid strides which have of late years been made in certain directions there has been no small danger of hasty generalisations displacing, or rather overshadowing, the older and more firmly established facts of pathology. Happily for the student, Professor Coats has the faculty of blending new knowledge with the old and the acumen to discriminate between facts that are established and those inferential deductions which are lacking in solid proof. As one instance out of many that might be cited we may refer, for example, to the question of the alleged parasitic origin of malignant neoplasms. It is well known how the discovery of certain appearances in the cells of such formations, aided by the analogies of coccidial infection, has been strenuously advanced in support of the doctrine referred to. Professor Coats admits (p. 298) that in the case of cancer "a parasitic origin might explain the malignancy of the disease and its spreading character" as well as its general dissemination; but he finds it difficult to explain on the parasitic theory the local origin of the primary tumour, the absence of a multiple origin, and the fact of the different types of tissue growth characteristic of the various forms of cancer. He does not, however, dismiss the parasitic theory *in toto;* indeed, he admits that there is presumption in its favour, but "there are many facts to be elucidated before it can be finally accepted." In other words, his verdict is the one not unfamiliar to the courts of his country—namely, "Not proven." The chapter upon Bacteria and Parasitic Fungi is kept within due limits but is well brought up to date, mention being made under the description of the cholera bacillus of M. Haffkine's protective inoculations. The first part of the work—that devoted to general pathology—concludes with a chapter on Pyrexia, in which again the author finds himself confronted with conflicting theories, here summed up under the two heads of "nervous" and "metabolic." It is to the latter that he gives his adhesion, being unable on the former hypothesis to explain the fact that multifarious agents induce pyrexia when they are present in the blood, whilst it is difficult to believe that they act similarly upon the nervous system. Nor can he find any analogy between normal heat-production and that occurring in fever. More than two-thirds of the work are occupied with the description of the morbid anatomy of the various organs of the body, including the skin, ear, and eye. As we have already indicated, it is impossible to particularise any section as being more notable than any other; but the student will be grateful to the author for discussing with the fulness that is here bestowed on them the diseases of bones and joints and the diseases of the peripheral and central nervous systems. The whole book bears evidence of having been carefully revised; and those who are familiar with the previous editions will be especially struck by the large number of fresh illustrations, many of them reproductions of photographs, which greatly enhance the value of the work.

Tuberculous Disease of Bones and Joints: its Pathology, Symptoms, and Treatment. By W. WATSON CHEYNE, M.B. Edin., F.R.S., F.R.C.S. Eng., Professor of Surgery in King's College; Surgeon to King's College Hospital and Paddington-green Children's Hospital, London. With 63 Illustrations. Edinburgh and London: Young J. Pentland. 1895. Price 14*s.*

THIS volume deals with a subject second to none in importance to all general surgeons. Since the great discovery of the tubercle bacillus by Koch, and its demonstration in the bones and synovial membranes in cases of disease which had previously been grouped as "strumous," not only has the pathology of these diseases been placed upon a surer and more certain foundation than was previously possible, but the etiology, prevention, and treatment of these diseases have required re-examination and undergone considerable development. Many admirable pathological and clinical works have been written on tuberculous disease of bones and joints, especially the

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latter. But Koch's discovery is of such momentous influence that anything written in ignorance of it is of little value to the student and practitioner of to-day, and there is abundant room for description, discussion, and criticism from the new standpoint.

In the first part of the book before us Mr. Watson Cheyne has republished much of his Astley Cooper prize essay and of the lectures he delivered at the Royal College of Surgeons of England. In it he discusses the pathology and treatment of tuberculous disease of bones and joints in general. The pathological processes are described in considerable detail, and the text is illustrated by many reproductions of photographs of sections of diseased tissues. This first division of the volume is characterised by precision and lucidity of statement, and by that scientific accuracy and thoroughness which we are accustomed to look for in all Mr. Cheyne's work. It is the more valuable part of the work, and will be found extremely interesting and instructive to those who have been unable themselves to follow the recent advances of pathological science. *En passant* Mr. Cheyne discusses the essential feature of the tuberculous deposit—a subject on which much has been said, and on which the last word has yet to be said—and gives in his adhesion to the view that the epithelioid cells are the characteristic element of tuberculous tissue. Now that the tubercle bacillus has been discovered this discussion has lost much of its interest and has become almost academic.

The section on the Treatment of Bone and Joint Tubercle is a careful and temperate estimate of the most important means at the surgeon's disposal. The value of rest and general hygienic measures is rightly insisted on, but the chief interest attaches to the discussion of the true place and value of arthrectomy and excision. On this point we may quote Mr. Cheyne's own words: "The conclusion as regards arthrectomy and excision, which seems warranted by all the facts, is that arthrectomy is the proper radical operation in children up to fifteen and sixteen years of age, and excision in patients who have reached their full growth." Very little is said of the value of parenchymatous injections of iodoform, carbolic acid, chloride of zinc, and other agents. This method has been largely employed by some surgeons, but although some measure of success has been obtained it has not met with general acceptance, and we fully agree with Mr. Cheyne's expressed and implied estimate of its value.

The second section of the volume is devoted to a discussion of the symptoms and treatment of tuberculous disease of the various joints and bones, and is on the lines with which we are all familiar. Several of the figures in this section have been taken from Bradford and Lovett's work, and are not very pleasing works of art; but the few original illustrations are of no greater artistic merit. It is a pity that more care was not taken to make the illustrations worthy of the text.

Transactions of the Pathological Society of London. Vol. XLVI. London: Smith, Elder, and Co. 1895.

THIS volume of Transactions of a society which is recognised the world over to have done not a little to foster and advance the study of pathology is not inferior to its predecessors, although those familiar with the Transactions of a decade ago may miss that abundance of descriptive morbid anatomy which was wont to characterise them. We fear that under the influence of the "new pathology" there must be less enthusiasm amongst the younger morbid anatomists to work out and describe the specimens which the deadhouse affords, and we may venture to doubt whether this is desirable. The rich mine of morbid anatomy in the metropolis of the world can hardly be said to be exhausted, nor is the present race of pathologists less zealous than the preceding; but there seems to be a growing diffidence in the putting on permanent record observations which are constantly being made only to remain buried in hospital registers. On the other hand, it is well, if specimens do find a place in the Transactions at all, that they should be adequately described, and not dismissed with a terseness which finds its *reductio ad absurdum* in the record of one specimen mentioned in this volume in the words, "A specimen was exhibited before the society." It would, however, be churlish and even unjust to lead anyone to infer from these remarks that this volume does not contain very many papers of great excellence and interest, whilst the illustrations are of the high order which we are accustomed to find in this series of volumes. Amongst the papers of especial value are the following:—Lesions in the Brains of Lunatics, by Mr. C. F. Beadles; Congenital Cystic Adenoma and Carcinoma of the Kidney, by Mr. E. Willett; The Microscopic Structure of Urinary Calculi of Oxalate of Lime, by Dr. W. M. Ord and Mr. S. G. Shattock; the Note on Variola and Vaccinia, by Mr. Jackson Clarke; Absorption and Metabolism in Obstruction of the Pancreatic Duct, by Dr. Vaughan Harley; the paper on Graves's Disease, by Dr. W. Edmunds; and that on Results following Removal of Portions of the Kidney, by Dr. J. R. Bradford; whilst the discussion upon Diphtheria and Antitoxin and the paper by Dr. Washbourn on the Pneumococcus show that the society is alive to current bacteriological thought and research.

Grundriss der Pathologischen Anatomie. Von Professor Dr. R. LANGERHANS. Zweite Auflage. (*Outlines of Pathological Anatomy.* By Professor R. LANGERHANS. Second edition.) Berlin: S. Karger. London: Williams and Norgate. 1896. Price 12*s.* 6*d.*

THIS book, intended to serve as an introduction to the study of pathological anatomy, first appeared in more compact form on the occasion of the seventieth birthday of Professor Virchow, as a tribute from his former pupil, who is prosector at the Moabit Hospital, Berlin. Now that it has been expanded, by the enlargement of certain chapters and by the addition of others on the special sense organs, it is a fairly compendious, yet not wholly satisfactory, manual. Commencing with a brief disquisition on etiology and heredity, the text comprises first a description of the disorders of circulation, then those of nutrition, including inflammation and fever. The next chapter on malformations is little more than a catalogue. Nor can we think that the retention of Virchow's "oncology" is quite in accordance with present-day classification, whilst the curious manner in which the infective diseases are grouped is wholly irrational and unsystematic. This, however, may be a trifling fault, but we must deprecate the collocation under "diphtheria" of all affections in which the anatomical feature of "diphtheritic inflammation" occurs. This seems to us to be decidedly retrograde, for surely the etiological factor should outweigh the anatomical in classification, and there can be no reason for retaining the old alliance of dysentery with diphtheria as is here done. We are unable to follow Professor Langerhans in his statement that acute fibrinous pneumonia may have a "catarrhal" or a "hæmorrhagic" first stage, nor do we think that in an anatomical work it is at all scientific to treat of "apoplexia cerebri" as a condition embracing the subdivisions of A. hæmorrhagica, A. hyperæmica, A. anæmica, A. serosa, and A. nervosa ("shock"). The diseases of the adrenals are described as an appendix to those of the nervous system, apparently on the ground that derangement of the sympathetic occurs in Addison's disease, and that the adrenals may be absent or ill developed in anencephalous fœtuses. There is perhaps even less reason for appending the thyroid gland to the

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section on diseases of the respiratory organs. However, in spite of these blemishes there can be no doubt that the book contains a vast amount of information within comparatively small compass, and the very excellent index enables the reader to refer to every topic with facility. The illustrations, 136 in number, are many of them diagrams which will be useful as guides to teachers in their use of the blackboard.

LIBRARY TABLE.

Outlines of Practical Physiology; being a Manual for the Physiological Laboratory, including Chemical and Experimental Physiology, with reference to Practical Medicine. By WM. STIRLING, M.D., Sc.D. Edin., Brackenbury Professor of Physiology and Histology in the Owens College and Professor in Victoria University, Manchester; Examinsr in Physiology in the Universities of Edinburgh and London. Third edition, revised and enlarged. With 289 illustrations. London: Charles Griffin and Co. 1895.—The object and scope of this scientific text-book are succinctly set forth in its title, and it really is what it pretends to be. It is profusely and admirably illustrated, many of the woodcuts being original, and this edition has been revised, re-arranged, and enlarged. It consists of two parts, the first on Chemical Physiology, and the second on Experimental Physiology, with an appendix on Recording Apparatus. As the present is the third edition there is no need to say much about it. The work, which is based upon the results of an extended experience in teaching practical physiology, is excellent in design and uncommonly well and carefully executed. It can be honestly recommended as an admirable guide to practical physiology and laboratory work.

Messrs. Henry Frowde and Co., of the Oxford University Press Warehouse, Amen-corner, E.C., have added yet another to the dainty collection of Service books, &c., issued by them on their celebrated Oxford India paper, and now send us the *Oxford Thumb Prayer Book, with Hymns Ancient and Modern complete*, the dimensions of which are $2\frac{1}{8}$ in. $\times 1\frac{1}{8}$ in. $\times \frac{3}{4}$ in., the weight under $1\frac{1}{4}$ oz., and the number of pages 1558.

Herbert Fry's Royal Guide to the London Charities. Edited by JOHN LANE. London: Chatto and Windus. 1895. Price 1*s.* 6*d.*—This well-known compilation, which has now made its thirty-second annual appearance, is a great store-house of information for philanthropic workers and the charitable public. An idea of the vast amount of benevolent effort which is made to alleviate distress and suffering may be formed from the fact that the mere enumeration of the names of the various agencies at work in this field occupies 293 pages. In the distribution of such large sums of money there must obviously be an enormous amount of overlapping of the operations of organisations dealing with like classes of applicants, and the utility of an acquaintance with such works as this Guide is recognised by the responsible officials of all charitable undertakings.

Introductory Exercises in Urdu Prose Composition, with Notes and Translations. By Surgeon-Lieutenant-Colonel G. RANKING, M.D., M.R.A.S., Secretary to the Board of Examiners, Fort William, F.C.U., and Maulavi Muhammad Yu'suf Ja' Fari, Chief Maulavi to the Board of Examiners. Calcutta and London: W. Thacker, Spink, and Co. 1896.—Surgeon-Lieutenant-Colonel Ranking of the Indian Medical Department has done excellent service to Europeans stationed in India by his treatises and guide-books to the acquirement of a knowledge of the native languages, and the present work has been prepared to meet a want which his service and experience in India have taught him to be a pressing one. The introduction to the work contains some interesting information about the growth of what was originally a language with a very limited vocabulary into one of the largest and most comprehensive of languages by the additions made to it by successive foreign encroachments. Urdu contains words from the Persian and Greek tongues, and through these from the Greek and Latin, as well as from the English languages. The translations from English into Urdu seem to us to be well and ingeniously rendered, and the work will prove most useful to those who are required to pass examinations in Urdu of which translations from English form a part.

Some Old Love Stories. By T. P. O'CONNOR. London: Chapman and Hall, Limited. 1895.—Mr. T. P. O'Connor has the faculty of putting himself *en rapport* with the times and circumstances and the characters he depicts. The five biographical histories included in this volume are of very unequal interest. Those dealing with Fersen and Marie Antoinette, Mirabeau and Sophie de Monnier, and Carlyle and his wife possess materials that naturally lend themselves, especially those concerning Marie Antoinette, to a sympathetic style of writing and dramatic effect, and are well suited to this author's method of treatment. The work is not by any means one of compilation only, but the materials are skilfully arranged; the more striking points of interest as well as the little pathetic incidents and trifling traits which are significant and indicative of motive and character are prominently brought out or just touched with a graphic or delicate handling that is both suggestive and interesting.

We have received a copy of the Urdu translation of First Aid to the Injured, by Mr. Samuel Osborn, F.R.C.S. Eng. The translation has been undertaken by Munshi Newal Kishore. We are glad to welcome this as a valuable addition to medical works in the vernacular for the use of non-commissioned officers in native regiments.

MAGAZINES.

The *Asclepiad* completes its eleventh volume with the last quarter of 1895. The opening article treats of Angina Pectoris, and the subject is handled in the careful and eminently common-sense manner so characteristic of Sir B. W. Richardson. He draws special attention to the fact that diet and temperance—using this latter word in its widest sense—are as, if not more, important than drugs, though at the same time he gives every credit to the value of nitrite of amyl and nitro-glycerine as palliatives or even in some cases preventives of an attack. There is an interesting paper upon Working-class Sanitation, being an address delivered at the Manchester Sanitary Congress in April, 1895. The biographical paper deals with Dr. Thomas Young, who established the doctrine of "interference" with regard to colours of light, and who was eminent, if not as a physician, as a scholar and philosopher.

The *Edinburgh Medical Journal* for March contains among other original articles a most interesting paper by Mr. Christopher Martin upon Panhysterectomy. He does not sew the peritoneum together to form a roof for the vagina, but plugs the vagina with an iodoform gauze plug, which he says quickly becomes encapsuled with aseptic lymph. By an unfortunate misprint in the copy before us the word "aseptic" is made to read "a septic." There are a number of reviews and the usual periscope.

In the *Humanitarian* Mr. Arnold White has a paper on the Multiplication of the Unfit. We quite agree with him that the multiplication of the unfit is a most serious evil, but we do not see how at the present time it is to be prevented. Mr. White pleads for a State inquiry into the physical condition of the population, with special reference to the effects of premature, unhealthy, and reckless marriages.

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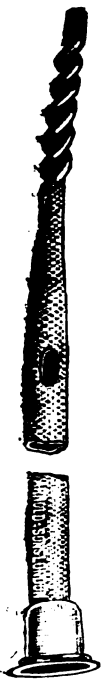
New Inventions.

A NEW SPIRAL CATHETER.



THE instrument, of which the accompanying is an illustration, is a new form of catheter which I have designed, and which is manufactured for me by Messrs. Arnold and Sons, London. I have tested it in practice and claim for it several advantages, the chief being:—its easy manipulation; that it can, by reason of its spiral end, on being rotated, worm its way corkscrew fashion through a stricture; that when past a constriction it will have obtained purchase sufficient to enable it to contend with further obstruction, instead of being retarded in its passage as is the case when using the old type of instrument; and the danger of employing undue force in its application is diminished, as the pressure it exercises is uniform and gentle. The idea can also be applied to bougies for the gradual dilatation of strictures.

JOHN F. ELLIOTT, L.R.C.S.I., L.R.C.P.I.

NEW RESPIRATOR-INHALER.

I BEG to introduce to the notice of the profession a respirator-inhaler which I have designed, and which presents some features of novelty. Outwardly it has the appearance of a cigar or cigarette (it is made in two forms) fixed in an amber mouthpiece, so that a person with one in his mouth in the street appears to be smoking and so attracts no attention whatever. It thus enables one to carry out dry inhalations in the treatment of respiratory diseases with a constancy unattainable by any of the instruments at present in use, as the great majority of patients are very sensitive about their unsightly appearance. Both ends screw off, so that free access is afforded to the interior for the purpose of changing the absorbent medium. As a dry inhaler, charged with oil of eucalyptus, it affords a protective against contagion. In deafness arising from middle-ear catarrh and Eustachian obstruction it can be utilised to introduce volatile drugs into the tympanic cavity by Valsalva's method. Fitting an india-rubber nosepiece, like that on a baby's feeding-bottle, on the amber end converts it into an efficient nasal inhaler for the inhalation of menthol, &c. It is exceedingly light, the cigarette form being little more than 1½ drachms and that of the cigar form rather more than 3 drachms. It is neat and attractive in appearance and very portable. Together with a small vial, with spouted lip for containing the medicament, it can easily be carried in the waistcoat pocket.

FIG. 1.

FIG.

Messrs. Arnold and Sons, West Smithfield, London, E.C., are the manufacturers, and their name is a sufficient guarantee for perfect finish and good workmanship.

WM. G. SUTHERLAND, M.B.Aberd.

Capheaton, Newcastle-on-Tyne.

A URETHRAL KNIFE.

THE accompanying illustrations represent the urethral knife described by me in THE LANCET of June 1st, 1895, now fitted as then suggested with a shield which renders it safe to use in any part of the canal, and through which it can be passed either direct or preceded, if need be, by the dilatation of tapering sounds. I offer it to the profession as being simpler, safer, and more inexpensive than any urethrotome in use. Fig. 1 shows a bulbous-ended variety, and instead of a bulb a long guide might be screwed on if desired. It cuts at A C only, the edge B A being blunt, and intended to slide on the mucous membrane until the obstruction is reached. The following is the mode of use. 1. Decide upon the desired restoration calibre of the strictured part; allow of the proper elevation of the shield F by turning the screw E to carry this out (this calibre being instantly determined by a simple means I shall not take up space in describing). 2. Depress the shield again and pass the instrument through the stricture. 3. Press on D to again elevate the shield, and withdraw in this way until the stricture is severed. Perhaps I am justified in claiming four advantages: (*a*) Normal axis is restored; (*b*) stricture tissue is cut only; (*c*) the same is made tense whilst being cut; and (*d*) preconceived desired calibre is restored and *not exceeded*. Hence the usual disagreeable sequelæ ought to be prevented. I am not aware of any other instrument, however ingenious, which can carry out these desiderata combined or any two of them. The instrument is well made by Messrs. Arnold and Sons, London.

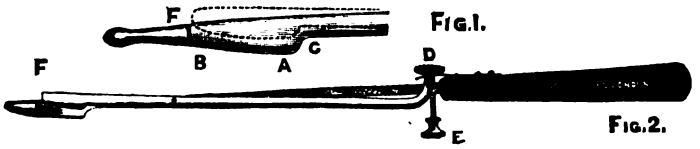


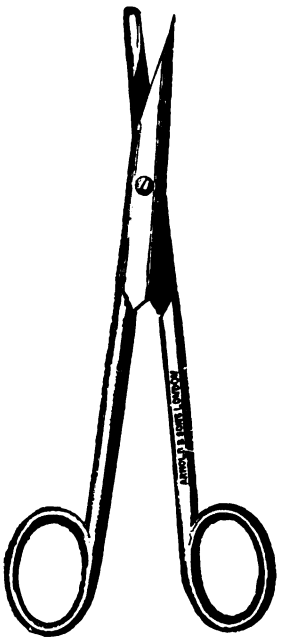
FIG. 1.

FIG. 2.

Finsbury-pavement, E.C. JAMES MACMUNN.

NEW FORM OF DRESSING-SCISSORS.

HAVING been six years engaged in hospital work and a dresser at Addenbrooke's and St. Thomas's Hospitals for four years, I have often noticed the unnecessary pain produced, and the great inconvenience experienced, especially by young nurses, by using the ordinary scissors. This has led me after many years' study to invent a new form of dressing-scissors. They are probe-pointed, and the cutting blade does not extend to the end. They are beautifully made by Messrs. Arnold and Sons. I have shown them to many medical men who much like them.



Taunton. R. H. WEST.

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THE LANCET.

LONDON: SATURDAY, MARCH 7, 1896.

IT may seem to the outside world that the General Medical Council goes to sleep during the interval between its bi-annual sessions; but a perusal of the minutes of the executive committee, which, like the minutes of the Council itself, are published, tends to dispel that impression. The fact is that the executive committee carries on in an important sense the work of the Council. The work of the President is continuous and has of late been more exacting and laborious than usual. The preparation of the Pharmacopœia and the alteration of the premises of the Council have served to add much to his duties. Besides these, two or three great subjects were referred by resolutions of the Council in November to the care and consideration of the executive committee—notably, the questions of the Disciplinary Powers of the Licensing Bodies and the position of the Apothecaries' Hall of Dublin as affected by the refusal of the General Medical Council at its last meeting to appoint surgical examiners so as to enable it to give a complete examination in medicine, surgery, and midwifery, as required by the Medical Act of 1886. On both of these subjects, as on several others, much interesting matter is contained in the minutes of the meeting of the executive committee held on Monday, Feb. 24th. We have already referred on several occasions to the first of these subjects. It may be remembered that on Nov. 26th, 1895, on the motion of Dr. GLOVER, seconded by Dr. THORNE THORNE, the Council resolved:—

"That it be an instruction to the executive committee to revert to the consideration of the subject of the disciplinary functions of the qualifying medical authorities and of the General Medical Council, and to report to the Council at its next meeting on the best means of further defining and comfirming those functions, and bringing them into harmonious and efficient coöperation."

In the present state of the profession, with a very quickened sense of the need for defining and localising its ethical powers, it is of the greatest moment that the executive committee should treat this subject both promptly and seriouly. The minutes show that so far both the executive committee and the President of the Council have shown most commendable earnestness in the matter. They have already, in reply to a circular from the Registrar, issued by the President's direction, received most valuable information from nearly all the qualifying Bodies. The possession of disciplinary power is of the very essence of our medical corporations, and dates back in the case of the Royal College of Physicians of London to a clause in the Charter of Incorporation, A.D. 1518, confirmed by Statute 14 and 15, Henry VIII., C. 5, and confirmed and enlarged by subsequent statutes. The Royal College of Surgeons of England has similar powers, rendering a Fellow or Member liable to removal by the Council for any act prejudicial to the College or disgraceful to the profession of surgery. The Apothecaries' Society of London does not hesitate "for what it is worth" to call the attention of their Licentiates to complaints against them, but they cannot censure them. They can only remove from the List of Licentiates (by 4th Section of the Apothecaries Amendment Act, 1874) persons convicted of felony, crime, &c., or who have been judged by the General Medical Council to be guilty of infamous conduct. The Scotch Corporations have similar powers to those of the English Colleges, but the Royal College of Surgeons of Edinburgh shows a disposition to wait for the initiative of the General Medical Council, which is unreasonable. The authorities of the College are the proper custodians of the honour of their own diplomates, and can act with much less expense, in a much more domestic way, and at an earlier stage of misconduct, than can the General Medical Council. They would save much scandal to the profession by such early action, and would reserve the last punishment of the General Medical Council for grave and incorrigible cases. Similarly, the Irish Corporations, saving the Apothecaries' Hall of Dublin, have ample power over their Fellows, Members, and Licentiates. The minutes of the executive committee show how fallacious is the idea that the Universities are helpless in the case of misbehaving or discreditable graduates. The University of Oxford has the statutable power of depriving a graduate of his degree for infamous conduct. The University of Dublin has power to censure and to remove names from the list of graduates. It has no fixed rules, but considers each case on its merits. The University of London has power to censure and remove names from the Register—though happily it has never been called on to exercise such power. The University of Cambridge, however, is practically content with a *non possumus*, since it only asks for a statute to deprive of his degree any graduate "sentenced to imprisonment." The Victoria University does not possess any disciplinary powers, neither does the Royal University of Ireland; and the great universities of Scotland, which send forth graduates in thousands over the empire, are in doubt whether they have such powers or not. Happily they show a desire to be armed with a power so essential to their purity. It will scarcely be fair henceforth to the great body of their graduates to sit down contentedly without the power of removing names which disgrace them from the calendars of the Universities. The public, as well as the self-respecting graduates, will not rest satisfied with a state of matters that allows men who have ceased to be on the Register to retain the titles which imply high qualifications in medicine and surgery. Fortunately, the executive committee has appointed a good subcommittee to consider the extension where necessary of the disciplinary powers of the medical authorities, including, of course, the universities.

The minutes of the executive committee show that the case of the Apothecaries' Hall of Dublin is full of complication and difficulty. It seems an easy matter to relieve an examining body of its duties and to disfranchise it. But it is not so easy as it seems, when this body has been acting jointly with another body, which must share the responsibility of the examinations, when it has not been shown to have "passed" unfit candidates, when the reports of inspectors show improvement in

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the standard, when its extinction must be the act of the Privy Council, and when a considerable body of opinion in its own division of the kingdom is in its favour. The candidates who have been partly examined by the Conjoint Board have first to be considered, and the Lords of the Privy Council appear to have acquiesced in a continuance of this Board — though it had really been dissolved — for the special purpose of their further examination. Their lordships have not gone further than this at present, though a strong counsels' opinion—signed by R. B. HALDANE, EDWARD CARSON, and B. STEPHEN FOSTER—has been obtained in favour of the view that the General Medical Council should appoint surgical examiners. The executive committee, in accordance with the wishes of their lordships, have made arrangements for the inspection of such further examinations.

THE discussion on malarial fevers at the Royal Medical and Chirurgical Society on the 11th and 25th ult. was very interesting and in some respects most valuable. The joint paper by Dr. MARSHALL of Huelva and Dr. THIN by which the discussion was introduced dealt with the question of the parasite and with the mode of propagation of the malarial poison, and on both these points the writers expressed most definite opinions. During the discussion the prophylactic value of quinine, as apart from its curative effects, was referred to by several speakers, and many important and apparently conclusive instances were brought forward in support of its prophylactic influence. No one should go into a malarious country or district without taking a daily ration of quinine in small doses of from five to ten grains. In cases of working parties or expeditions this practice should be insisted on by the responsible officer in charge, just as a daily ration of lime juice is made imperative in the mercantile marine and is daily administered under the supervision of the captain or some other officer in authority. Quinine may be given in many ways, but if put into the coffee which is regularly served out to the men in the morning a very simple, regular, and efficient mode of administration is secured, and the palate soon gets accustomed to the flavour of the drug.

Dr. MARSHALL and Dr. THIN endeavoured to prove the following proposition: "As malarial fevers assume a variety of types in different parts of the world, and as at least three—some authorities would say five—varieties of parasites have been found associated with as many distinct types of fever, it appears probable that as many varieties of parasites exist as there are varieties of fever, and there is thus opened out to us a large field for observation in undertaking the study of the parasites found in the blood of malarial patients." It was as a contribution to this aspect of the subject that the paper was brought before the society, and much praise is due to the writers for their painstaking and laborious work. The number of observations made on the blood is enormous. Dr. MARSHALL recorded the clinical histories of his patients at Huelva in Spain, and he and Dr. THIN simultaneously examined the specimens of blood taken from these patients. With the exception of some observers in India all who have carefully examined the blood of malarial patients are now agreed that there is a living parasite to be seen therein, and that LAVERAN'S discovery was correct. The parasite undergoes various stages in its development and is seen in different forms and shapes, and it was as to whether the observations made by Dr. MARSHALL and Dr. THIN confirmed the statements of GOLGI that these differences were characteristic of the different varieties of the fever that the chief interest of the paper was centred. In view of the subsequent discussion we cannot say that they quite proved the proposition which they had so absolutely laid down. The young spore of the hæmatozoon is first seen in an amœbic form which attacks a red corpuscle and as the amœba develops pigment is observed in its substance, and the writers of the paper consider that the character of these pigment granules and their mode of arrangement are distinctive of each variety of parasite, but there is considerable question whether such pigmentation is not really accidental and not distinctive. Again, it is a further question whether the alterations in size and colour of the red blood corpuscles, as the parasite is developing, are as characteristic as Dr. MARSHALL and Dr. THIN believe them to be. In fact, are they not insisting too much on minute differences which may only be accidental and possibly due to changes in the density of the medium and the effects of reagents? In addition to the amœbic form crescents have also been seen in all varieties of malarial fever, although they are more numerous in the chronic fevers and especially in those which do not readily give way to quinine. Both of these forms have been observed to flagellate and the flagella to become free and move about most actively in the blood. Such movements are anything but those of a "death agony." The sporulating or roseate forms are seen in tertian and quartan agues and their different appearances may, as GOLGI says, be characteristic of these two typical forms of malarial fever, and Dr. MARSHALL and Dr. THIN put forward their cases to strengthen his views. For real confirmation, however, simple tertian and quartan cases untreated for some days by quinine should have been selected, whereas those narrated by Dr. MARSHALL are cases of supposed double tertian and double quartan and other irregular forms of the fever, so that further observations are still needed to prove this point as well as the relationship between the amœbic, the sporulating, and the crescentic varieties of the plasmodium.

The experience of Dr. MARSHALL is the same as that of other observers—that malaria is often very narrowly localised, and he has reason to believe that it hugs the soil very closely and is not readily carried by currents of air from one place to another, whilst moist conditions favour its development and render it more fitted to establish itself in the human body. He is, however, very sceptical whether drinking-water is ever the vehicle by which the parasite is introduced; and, although he may be correct in his statement that this is certainly not the medium at Huelva, we know too little of the life history of the parasite outside the human body to act on this view as universally true. The instances mentioned by Dr. CURNOW and the experiences of the speakers who had lived long in India are strongly in favour of the hypothesis

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that water may be the means by which the poison gets into the system, and certainly all suspicious water must still be avoided. The part played by the mosquito was referred to by the authors, who evidently do not attach as much importance thereto as did LAVERAN and some more recent observers, but we shall probably hear much more on this point from Dr. MANSON in his forthcoming Gulstonian lectures at the Royal College of Physicians of London.

THE introduction of such drugs as chloroform and ether and their adoption as means of rendering the patient insentient and passive during the performance of even the most complicated operations have added one more to the grave responsibilities which surround the medical practitioner of to-day. That such responsibilities are borne more easily by some than others is to be expected. The duties which a medical man undertakes, and for which he is answerable to the law, are not always very clear from their legal aspect, and the legal responsibilities of the moment may vary according to the circumstances of the case. There are, however, certain broad principles underlying all such cases, whether they are emergencies or occur in the routine lines of daily practice, and it may be useful to consider these in this place.

The person who undertakes the control of the anæsthetic is responsible for the safety of the patient. It has been held by persons of great weight in the profession that the real person who bears the burden of the responsibility is the surgeon who operates, and this undoubtedly is a correct theory as far as it goes. If a surgeon commits his patient to an unskilled chloroformist, knowing him to be so, any loss sustained through the neglect or ignorance of the anæsthetist would be in part due to the surgeon, and the obloquy of permitting such an inexpert individual to approach his patient would undoubtedly belong solely to him. The patient, as a rule, looks to the surgeon to so arrange that the operation shall be carried out in all its details as well and as safely as knowledge and skill can effect. But the responsibility of the actual conduct of the administration of the anæsthetic must in every case rest with the person whose allotted task it is to devote himself to it. The surgeon may be highly reprehensible if he permits a novice to undertake the administration of ether or chloroform, but the person giving the drug cannot be screened from his act by the surgeon. This clear statement of fact underlies the first canon of practice. The person who gives an anæsthetic, unless he be a student who does it under the eye of his teacher, who then assumes the responsibility, must always be a duly qualified medical practitioner. It may be urged that many ward orderlies or nurses are far more experienced than newly qualified men, but even were this so it is no valid reason for permitting unqualified persons to undertake the functions of medical practitioners; and this leads us to the second canon, which insists that only those should be permitted to give chloroform or ether who have adequate experience in the use of these potent agents. The familiarity which druggists possess with herbs and simples qualifies them in no respect to apply them in the treatment of disease, and even less would a nurse, however many times she may see an operation performed or chloroform administered, be competent in the eyes of the law or of the profession to undertake the one or administer the other. At one time the rule of thumb was dominant, but fortunately more exact methods at present prevail. The Buddhist praying machine and the heedless drenching of patients with anæsthetics by irresponsible medical novitiates are alike disbelieved in by the thoughtful in such matters. The splendid work of SIMPSON, of SNOW, of LISTER, of CLOVER, of LAWRIE, and many others has driven home the lesson that safety in anæsthesia means accurate knowledge and its stringent application to the methods adopted in giving an anæsthetic. The average medical man has nowadays received a training at his hospital in anæsthetising, and hence there can seldom, if ever, be a necessity for calling upon an unqualified person to give chloroform. When such a step is taken it can only be done at the risk of the individual who resorts to this most dangerous development and of the unqualified person who with his eyes open attempts to perform one of the most anxious and responsible duties falling within the province of a medical man. We are informed that in more than one small hospital it is the custom to entrust the anæsthetic to a nurse. Such a practice can, we submit, only be justified by most exceptional exigencies. The surgeon should give undivided attention to the operation or the anæsthetic, for nothing short of this can be sufficient for the patient's safety. No one can with safety supervise a person giving an anæsthetic and perform an operation.

More than one action for damage has been brought against medical men who have lost patients under chloroform, and in such cases the only possible defence can be that everything was done for the unhappy patient which experience and skill could effect. Thus the fact must not be blinked that both from the point of view of medical ethics—which demands that one medical man shall, when he needs professional assistance, call to his aid the services of a qualified fellow practitioner—and from the purely legal standpoint the responsibility of giving an anæsthetic should be borne wholly and solely by a registered medical man who is competent to select his anæsthetic and to administer it in the best possible way. Certain it is that anyone who wittingly violates these rules puts himself outside the pale of professional and legal right.

THE ANNUAL REPORT OF THE WESTON-SUPER-MARE ROYAL SANATORIUM.—The annual meeting of the Weston-super-Mare Royal Sanatorium was held on Feb. 22nd. The honorary secretary reported that during 1895 the receipts amounted to £3029, as against £3191 in 1894. The expenditure was £2814, being slightly in excess of the previous year. Mr. G. B. Fraser, the medical officer, stated that the number of convalescents admitted during the past year had been 1391; of these, 362 were discharged recovered, 655 much improved, 339 improved, 6 no better, and 7 discharged or went away of their own accord. There were 22 unfit cases; of these, 4 died in the institution, 3 from phthisis and 1 from heart disease. It was mentioned that the hot and cold sea-water baths are much appreciated by the convalescent patients, 4198 baths having been taken during the year. Mr. C. D. Cave was elected President. This gentleman has held a similar post at the Bristol Royal Infirmary for the past fifteen years.

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Annotations.

"Ne quid nimis."

THE ROYAL BERKSHIRE HOSPITAL.

WE have frequently had to comment upon the singular ignorance of the law governing medical men which is exhibited by bodies passing under the title of boards, vestries, school boards, and the like. The board of management of the Royal Berkshire Hospital recently passed and embodied in the rules of the hospital a resolution to the effect "that when the attention of the medical staff is called to the number of overtime patients within the hospital, such patients shall be consulted upon by the medical officers in charge of the patients collectively, with a view of discharging those that are eligible." This seems to us a most remarkable resolution. Surely the medical officer in charge of the patient is fit to pronounce upon the question as to whether he or she ought to go out or not. If he wanted another opinion he could easily ask one or more of his colleagues for such opinion, and we have no manner of doubt that such a request would be gladly acceded to. In fact, according to Rule 66 of the hospital it was laid down that with reference to the further stay in the hospital of a patient who had already been in eight weeks there would be a consultation with another member of the staff; and this, we maintain, is a wise and sufficient provision; but by this new rule surgeons will be called upon to criticise medical cases and physicians surgical ones, so that if the rule is carried out friction will inevitably arise. Further, by Rule 46, physicians must be graduates in medicine of a university of Great Britain or Ireland and must not practise or be in partnership with anyone who practises surgery, pharmacy, or midwifery. No such limitations are imposed upon the surgeons. If, then, care is taken to procure such very superior men as physicians they are surely competent to decide on the question as to whether a patient stays in or not. We may mention that according to our information the three physicians voted against the resolution and the six surgeons for it. In our opinion such a resolution is wholly unjustifiable, and those members of the staff who voted for it took a mistaken course. The board of management, however, must have very curious ideas as to the proprieties. Let us take Rule 65: "When in-patients are discharged *cured or greatly relieved* they shall be enjoined by the chairman of the board or the person who may give them their discharge to return thanks to Almighty God in their respective places of worship, *and also, whether relieved or not*, to the persons who recommended them to the hospital, for both of which purposes printed papers shall be delivered to them." The italics are ours. Was ever such a monstrous rule penned by a body of presumably more or less educated men before? The Almighty is only to be thanked for cure or great relief; the subscriber, because, we take it, he gives a guinea, is to be thanked whether the patient is relieved or not. This is the true commercial spirit of heathendom which is seen alike in the pagan when he ill-treats his idols, in the ignorant Roman Catholic when he refuses certain saints certain candles, and in the Protestant whose idea of worship is to get something for himself. We commend this rule to the notice of the Bishop of Reading, and, having studied it, cease to wonder at the ignorance of ordinary courtesies displayed by the board.

MEDICINE AND POLITICS.

PRACTITIONERS of medicine, like other people, have the unquestionable right to occupy themselves with politics and to take sides according to their convictions. We will even go further and say that it is the bounden duty of all citizens, no matter what their professions or occupations may be, to assume a fair share in the conduct of public affairs and do their best to promote the welfare of the State whereof they are members. It is only as private individuals, however, that medical men can claim the privileges of partisanship. In everything that concerns purely professional and scientific matters they have no nationality. A medical practitioner, more perhaps than anyone else save a minister of religion, has the right to say with Terence, *Homo sum; humani nihil a me alienum puto.* Unfortunately, this noble sentiment is far from being universally acted up to, especially on the Continent, where political feelings are far too often allowed to gain the upper hand. Some months ago a very flagrant exhibition of international intolerance occurred at Antwerp, and we are sorry to learn that the solution of continuity which then took place has not yet been healed or even bridged over. A German physician, having established himself professionally in that ancient city, sought and obtained admission to the local medical society. But no sooner was his membership an accomplished fact than a strenuous, though happily unsuccessful, attempt was made to cancel the election. Upon this a number of malcontents seceded in order to start a society of their own; and in spite of the utmost efforts of the leaders of the profession in Antwerp to bring about a more desirable condition of things the regrettable schism still continues.

THE NAVY ESTIMATES.

MR. GOSCHEN has made his Ministerial statement of navy policy. Upon the general question of the new shipbuilding programme and the large increase to the navy we are simply concerned in common with every other citizen. It is almost universally considered a wise and necessary measure for the protection of our Imperial interests, and one that has to be adopted on the same principle that prudent men endeavour to safeguard their interests and those of their families and their property by effecting insurances. The events and actualities of the present time have been more and more forcing the subject upon the attention of the nation. Apart from these general considerations, however, there are some subjects which may fairly claim our special notice. To begin with, we heartily concur in Mr. Goschen's method of dealing with our future naval cadets. Every naval medical officer will agree with the proposal to advance the age of boys entering the service by a year, with the substitution of a college on shore for the training-ship *Britannia*, and with the attempt to lessen or do away with the cramming or forcing system so generally followed at present. To think of the loss of air and healthy exercise and of the long-continued study and mental strain entailed upon lads of tender age by the present system of preparing for the competitive examinations, and to remember that the potential Drakes, Nelsons, Collingwoods, and Cochranes, and naval commanders of the future must spring from the ranks of these lads, is calculated to raise the eyebrows of astonishment, as the Germans say. If there be a desire to deprive the boys of their spirits, courage, independence, and individuality, to stunt their growth and development, and make them shortsighted, the system is a good one for the purpose. It is only owing to the fact that the course of this sort of training is happily not a very long one, that the natural buoyancy of youth cannot be altogether repressed, and because of the free open-air life that follows, that we manage to get such good results as we do. But a hatred of books is induced by the forcing process, which boys often never afterwards get over. As regards the *Britannia*, it is no longer suited for its purposes; it is

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not sufficiently large and well ventilated for the numbers of its occupants; and it is inconvenient, moreover, for the purposes of study and discipline. So far, then, we are heartily with Mr. Goschen. We are glad, too, that it is proposed to build a new hospital for 600 beds at Chatham in place of the present old and obsolete building occupying a limited site and without any proper provision for the isolation of infectious cases, and wards for the accommodation of seriously injured patients. We presume that the increased naval force will cause some additions to be made to the Medical Service and that additional barracks and hospitals will also be required and have to be erected. There does not seem to be any difficulty about the enlistment of boys for our future seamen, as they are stated to have offered themselves in such numbers that it has been found necessary to raise the standard twice during the year.

DAIRY FARMING.

IN a recent issue we dealt with some points relating to the food-supply of the nation, and reasons were adduced why, in view of the declining profits derivable from wheat growing, dairy farming should more and more engage the attention of the British agriculturist. Lord Vernon's article in the current number of the *Nineteenth Century* gives a large amount of important facts and data relating to this subject. The "dairy interest," the writer informs us, "is now tottering on the edge of a precipice, not, as many would wish to persuade us, because the British dairy farmer has deteriorated, but because seasons have been disastrous and trade bad." The season of 1893 with its prolonged drought was most disastrous to the English dairy farmer. The amount of hay from clover and artificial grasses received in Great Britain in 1893 was only half that of 1894, and the quantity of milk produced decreased from 20 to 30 per cent. "On June 30th, 1893, the number of milch cows in the United Kingdom had diminished by 106,396, and on the same date in 1894 by 194,965. During the same period the cattle of all ages had decreased by 738,621." It will thus be seen that the results of the great drought were not confined to one year, but made themselves even more apparent in the succeeding year. This is only what might have been expected. Ireland suffered much less than England and Scotland, her hay crop of 1893 having been equal to the average of the last ten years. It is calculated that each milch cow produces about 500 gallons of milk annually. The production of milk in the United Kingdom was 52,998,500 gallons less in 1893 than in 1892, and 97,211,500 gallons less in 1894 than in 1892. Reckoning the price of milk at fivepence per gallon, the former decrease represents a loss to the farmer of £1,104,136 and the latter a loss of £2,025,239. The inevitable result arising from this state of things in respect to British dairy farming was to stimulate foreign competition both as regards milk and butter. Hence we find that the import of butter, which was 2,183,009 cwts. in 1892, had risen to 2,574,835 cwts. in 1894, and the import of milk, which was 733,491,024 gallons in 1892, had risen to 855,144,560 gallons in 1894. "A current of trade such as the above," says Lord Vernon, "once stimulated is not easily stemmed; and in the first eleven months of 1895 the importations have been 234,424 cwts. more than in the corresponding eleven months of 1894. If we are overwhelmed by the same quantity in the near future, and our dairy herds resume their normal number, dairy farmers will find it difficult to weather the storm unless the wages of the working-class materially rise and the consumption of milk and milk products grows in proportion." From the point of view of public health this large and increasing import of milk and butter raises serious questions. These are eminently perishable articles and likely to suffer in quality during transit, so that it seems highly probable that they often reach our shores in a state that falls much short of ideal purity. While it is eminently desirable that milk and butter should be cheaply supplied to our urban populations it seems the natural course that with a climate such as ours the supply should come chiefly from native sources. The quality of English butter is often found to be defective, and the reason is that in times of prosperity the demand for milk is so great that the English farmer finds it more profitable to sell milk than to make butter or cheese. The case of Wales, Scotland, and Ireland is different. England has one cow to provide milk for thirty-two people, Wales for six, Scotland for nine, Ireland for three. Hence the amount of milk available for making butter and cheese is often small in England, but ample in the sister countries. Lord Vernon advocates the establishment of creameries in districts where butter must of necessity be made, and alludes with praise to the excellent work which Mr. Horace Plunkett has accomplished in this matter in Ireland. Lord Vernon does not believe that the British dairy-farmer has anything to learn from his foreign rivals and believes that any attempt on his part to imitate continental methods will be simply a waste of time and money. He looks for a remedy for existing evils rather in the general establishment of creameries, in the appointment of inspectors and consulting experts, in rigid precautions against adulteration and unfair foreign competition, and in improved railway facilities. We need hardly stop to point out how important this subject is from the point of view of national health and well-being. An adequate, cheap, and absolutely pure supply of milk and milk products is one of the most important objects that can be contemplated by the politician or the philanthropist.

"THE TREATMENT OF PAIN."

IN the *Berliner Klinische Wochenschrift*, 1896, Nos. 4, 5, and 6, Dr. Goldscheider has published an interesting series of articles on "The Treatment of Pain." He commences by stating that in spite of the very different diseases in which pain is a prominent symptom, and the different intensity of suffering in those diseases and the idiosyncrasies of patients, yet some attempt may be made to classify the methods adopted for dealing with this symptom. He then proceeds to divide "pain" into several classes according to its direct cause. In the first there is actual pain or suffering produced by excitation of the sensory nerves. In a second class the pain is much less distressing, lasts longer and produces a general sense of discomfort, and is well expressed by the German word "Weh!" To this class belong slight headaches, the discomfort of dyspepsia, &c. A third class of "pain" depends upon an increased cerebral irritability, the so-called "mental pain." In a large number of cases the treatment of the pain is the same means as is adopted for the treatment of the disease, but in such cases certain principles are involved, a knowledge of the cause of the pain, and the possibility of dealing with it therapeutically. With regard to the latter point two divisions may be made, in the first of which the pain is dependent on a true affection of the nervous system, and in the second of which the pain is secondary, dependent on pathological changes in other tissues, such as in inflammations, new growths, &c. Whilst in the second group the treatment of the pain is secondary to that of the causal condition, in the first the treatment is directly applied for the relief of the pain, and in many cases this is all-sufficient for the disease. The remedies employed for the relief of pain may be classified thus: 1. The irritability of the affected part of the nervous system is treated by depressing anodynes, narcotics, cold, or electricity. Amongst these morphia holds a prominent position. Belladonna, hyoscyamus, &c. are also useful, and

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in some conditions of the nervous system bromides, especially when the pain partakes of the characters of the second division described above. In similar conditions the "anti-neuralgics" are often successful. 2. Remedies which act by counter-irritation: blisters, sinapisms, liniments, and plasters, and the use of the faradaic brush. Dr. Goldscheider adds that these remedies act, not by the hyperæmia which they produce, but by the sensory effects which directly follow, and he enters very fully into the theory of such action. 3. Means which bring about changes in the circulation: local bloodletting, cold, heat, and hydro-therapy. 4. Massage and graduated exercises. Under the latter head he includes movements which are employed in neuralgia of the legs and arms, and for painful joints. 5. Means which are employed to act directly on the central nervous system: hypnotism and suggestion.

A QUESTION TO BE FACED.

THE medical officer of health for the Rye (Sussex) rural sanitary authority has called attention to the earnest need of the neighbourhood for an isolation hospital. There is yearly a large influx of a very susceptible and dangerous class—the hop-pickers, who literally swarm into and through the union from London, Brighton, Hastings, Maidstone, and the coast in both directions; and, further, the shipping in the harbour of Rye, which is within the area covered by the report, carries on a trade with Rotterdam, Cherbourg, the Baltic, and other ports. The medical officer urges that a solution of the difficulty might be found by some arrangement with the Rye urban sanitary authority, and advises his council to again take the matter up. He also recommends the serious consideration of the adoption of the Local Government Board's model by-laws for dealing with the immigrant fraternity. The health of the district, it should be stated, was last year very satisfactory. There were but four mild cases of scarlet fever, two of erysipelas, and one (fatal) of puerperal fever. Influenza had been epidemic, but the total corrected rural death-rate was but 14·4 per 1000 in a population of 7597.

PROFESSOR KITASATO'S WORK IN TOKIO.

DR. A. NAKAGAWA sends us the following interesting communication. "*Serum Treatment of Diphtheria.*—Dr. Kitasato has just published a detailed report of 353 cases treated at the institute with the serum prepared under his supervision. For those who have no access to the original a few brief extracts may be of some interest. *Mortality:* Professor Kitasato collected from reliable sources 26,521 cases of diphtheria in Japan previously to serum-therapy, with 14,996 deaths (56 per cent.); while of 353 cases treated here from Nov. 13th, 1894, to Nov. 25th, 1895, there were only 31 deaths (8·78 per cent.). There is reason to believe that the mortality can still be lowered if the treatment could be commenced early in the course of the disease. Thus in 110 cases in which injections were made within forty-eight hours after the invasion all ended in recovery. On the other hand, of 33 cases treated after the eighth day of the disease 11 were lost. Some of the patients were brought into the institute in a moribund condition, and 6 children died within five hours after admission, 6 more within ten hours; altogether 21 cases (two-thirds of the total mortality) were lost within the first twenty-four hours. As to the effect of the serum on the course of the disease the first thing to be noted is (*a*) the fall of temperature; in many cases the defervescence was almost critical, and it takes place usually at the end of twenty-four to forty-eight hours. Secondly, (*b*) the separation of the false membrane, which takes place, as a rule, after the return of the temperature towards the normal. Very large casts of the trachea and larger bronchi have been coughed up. (*c*) Urticaria-like eruptions were observed in very many cases, being in some quite severe and annoying. They, however, disappeared in a few days without any treatment. (*d*) In 4 cases marked albuminuria was observed at the time of admission. In these cases albumin disappeared from the urine in the course of the treatment. Pyrexia was accompanied by albumin in the urine, but there was no reason to believe that any renal trouble was caused by the injections. (*e*) Five cases developed paresis of the soft palate. I wish to note, in conclusion, that microscopic as well as culture examinations were made in every case, and Dr. Kitasato's report only deals with those cases in which Löffler's bacilli were demonstrated to be present."

WOMEN AND HOSPITAL BOARDS.

A MOVEMENT—which the test of time alone can prove to be good or bad in its effects—favouring the admission of women to seats upon hospital boards of management seems to be in progress. The example set at Edinburgh by the election of Miss Louisa Stephenson has been followed at the Royal Hospital, Portsmouth, by the addition of four women members to its committee of management and the admission of two to the House Committee. The ladies who were selected, at a somewhat noisy meeting of the subscribers, to fill the post were Miss Agnes Weston, whose experience of Portsmouth must by this time be both extensive and peculiar; Mrs. Ward, a lady guardian; Mrs. Will Hawksley, and Mrs. Guise Tucker. The resolutions, which met with great opposition, were brought forward by the late honorary chaplain of the institution (the Rev. W. Hawksley), who had resigned his position in consequence of the refusal of the then committee of management to allow ladies to visit in the lock wards of the institution.

THE WORKING CLASSES AND OUR HOSPITALS.

MESSRS. HORATIO MYER AND CO. of the Surrey Iron Works, Vauxhall-walk, having received a letter on the financial straits of Guy's Hospital, arising from the depreciation of landed investments, write to the *Times* commending the system pursued at their works since 1892, by which the men, when paid their wages, mostly put in a box on the pay-desk a penny or a halfpenny, or whatever they feel inclined. At the end of the year the firm adds an amount equal to that contributed by the men, and so a sum varying from £10 in 1892 to £25 in 1896 is sent to the Hospital Saturday Fund. Messrs. Myer and Co. testify that "the working classes do not desire to be the recipients of eleemosynary aid." It is certain that these classes have been more anxious to contribute to hospitals of late years than they were. But we are scarcely satisfied with the statements in Messrs. Myer and Co.'s letter. The subscriptions do not seem to be such as to imply any systematic or deeply conscientious effort—"a penny or a halfpenny or whatever they may feel inclined" does not suggest any great feat of self-denial on the part of either masters or men. It is gratifying to be assured that the working classes do not desire eleemosynary assistance. But there are some indications on the other side. There has been manifest lately, especially since the establishment of the Hospital Saturday Fund, a disposition to regard hospitals as places to which the working man could go as of right and demand attendance for the ordinary ailments and accidents of his family. This is an entire misconception of the *raison d'être* of our hospital system and one which cannot be too soon removed. Hospitals are essentially charitable institutions for the reception of cases of a gravity beyond the ordinary means of a working man. And for meeting such cases there is a great reserve of charity and pity in all classes. But Messrs. Myer and Co. and others will make a great mistake if they think that the voluntary hospital system can be

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maintained except on the eleemosynary system. If this element is to be done away with a very different scale of subscriptions from that of a penny or a halfpenny will have to rule.

THE DIRECT REPRESENTATIVE FOR IRELAND.

THE registered practitioners of Ireland have elected Mr. W. Thomson to be the direct representative of the profession of Ireland in the General Medical Council. Dublin will be more convinced than ever that it is for medical purposes Ireland and represents the whole profession. The registered practitioners cannot henceforth complain that it should be so. It would certainly have been a variety to have seen in the Council a practitioner from the provinces of Ireland and representing their medical life and needs. And the theory of direct representation in Ireland seems to require some such selection. But it has never had the support of such a selection. It is complimentary to men in the consulting and hospital ranks of Dublin that they should be elected by the profession generally as its representative. The opponents of the principle of direct representation must allow that it has not been blindly used to represent merely one branch of practice in any division of the kingdom, but rather for the selection of good men. Mr. Thomson is an M.A. (*hon. causâ*) of the Queen's University, M.D. and M.Ch., and F.R.C.S.I. His sympathies are with the surgical side of medicine and he is surgeon to the Richmond Hospital. He is besides general secretary and editor of the Transactions of the Royal Academy of Medicine in Ireland. It would appear that the direct representation of Ireland has been put into good hands, though they be Dublin ones, and that in the discussions of the Council Ireland will be well represented.

ENGLISH MORTALITY ASSIGNED TO ALCOHOLISM.

THERE are few branches of statistics in which it is more necessary to observe caution than in basing conclusions upon statistics of the causes of mortality. The necessity for this caution should not, however, deter us from discussing the true import of mortality statistics presented to us in the reports of the Registrar-General. It is needless to point out to those whose duty it is to certify causes of death "to the best of their knowledge and belief" the serious difficulties that surround the certification of death to which an excessive use of alcohol has more or less directly contributed. Under these circumstances it would be useless to expect a near approach to actual accuracy in the statistics of deaths assigned to alcoholism. The Registrar-General's figures on this subject, however, deserve consideration. The recently issued annual report shows the annual rate of mortality assigned to chronic alcoholism in England and Wales in each of the twenty years 1875–94. The recorded annual rate per million persons living from this cause has shown a remarkably steady increase during this period. The actual lowest rate in these twenty years was 26 per million in 1880, and the highest was 57 per million in 1893. In the first four years of this period, 1875–78, the annual rate averaged only 29 per million, while in the last four years, 1891–94, the recorded rate averaged 52 per million, showing an increase of 79 per cent. Can these figures mean that the death-rate from alcoholism has nearly doubled in the twenty years? Or are they to be explained by the more accurate and courageous certification of the cause of deaths due to alcoholic excess? There has been undoubtedly a very considerable decline in the proportion of deaths attributed to diseases of the liver during the last twenty years, and we know that the Registrar-General now addresses to certifying practitioners a steadily increasing number of inquiries concerning ambiguous certificates, but it is difficult to avoid the conclusion suggested by the figures noted above, that they imply, at any rate, some real increase in the death-rate from alcoholism. The figures bearing upon the recorded death-rate from this cause among males and females are interesting, and to a certain extent more trustworthy, as there appears to be no reason why the probable increase of accuracy in certifying this cause of death should affect the recorded death-rate of one sex more than another. The death-rate of males from alcoholism increased from 38 per million in 1875–78 to 60 per million in 1891–94; among females the rate increased in the same periods from 20 per million to 46 per million. Thus the increase in the recorded rate was equal to 58 per cent. among males and to no less than 130 per cent. among females. It is therefore impossible to avoid the conclusion that, whatever may be the actual increase in the death-rate from intemperance implied by the Registrar-General's statistics, the increase must have been relatively far greater among females than among males. It should be stated that the deaths referred to "delirium tremens" are not included under the heading "chronic alcoholism" and that the death-rate from this cause remained practically stationary during the twenty years.

THE ROYAL COMMISSION ON TUBERCULOSIS.

THE announcement made in the House of Commons on the 3rd inst. to the effect that it had been decided to reappoint the Royal Commission on Tuberculosis and to extend the scope of its inquiry so that it might further inquire and report on administrative procedures available for reducing the amount of tuberculous material in the food supplied by animals to man, is one which we are unable to receive with satisfaction. Two out of the five members who heard the evidence which has been taken are dead; they both held the post of chairman of the Commission, and Sir George Buchanan, who succeeded Lord Basing in that position, and to whom the report is largely to be attributed, brought to bear upon the work a combination of administrative, scientific, and medical knowledge which it will be difficult to replace. But a commissioner of some such stamp will be essential to secure public confidence as to "administrative procedures." We had hoped that this matter, which has been pending for years, and on which the late Commission had been sitting ever since July, 1890, was ripe for action. It is one of the gravest importance to the public health and one that calls for no delay that can by any means be avoided.

MEDICAL LIBRARIES IN AMERICA.

AN interesting paper on the development of medical libraries in America was read on Jan. 11th before the Medical and Chirurgical Faculty of Maryland by Dr. James R. Chadwick, librarian of the Boston Medical Library Association. The earliest of the American medical libraries was that of the Pennsylvania Hospital in Philadelphia. It was commenced in 1762 and has increased steadily until it has now reached 15,000 volumes. The library of the College of Physicians in Philadelphia was begun in 1788, and in 1864–65 was almost doubled in size chiefly by the gift of 2500 volumes from Dr. Samuel Lewis, whose eventual donations were nearly 10,000 volumes. Between 1882 and 1886 its growth was very rapid, owing to the receipt successively of the libraries of Dr. William F. Jenks, Dr. Alfred Stillé, Dr. Samuel D. Gross, Dr. I. Minis Hays, Dr. John S. Perry, and the library of the Obstetrical Society of Philadelphia. Between 1880 and 1882 Dr. S. Weir Mitchell contributed $2000 as a journal fund, and subsequently, when president, was the means of further benefiting the collection, which now contains 49,000 volumes and 28,000 pamphlets. The library of the New York Hospital was founded in 1776, and now numbers 22,000 volumes, but has practically no pamphlets. The library of the Surgeon-General's Office in Washington

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was begun in 1845, and in 1865 contained less than 2000 volumes; but in that year Dr. John S. Billings was placed in charge of the collection, and at once conceived the idea of developing this nucleus into a grand national library. By importuning Congress year after year he secured large annual appropriations of money (the annual appropriation for the purchase of books has averaged nearly $7000 from 1867 to 1895 inclusive), and the result of his labours is the most complete medical library in the world, consisting of 116,800 volumes and 191,000 pamphlets. The publication of the index catalogue of this library, the first series of which, in sixteen volumes, was begun in 1879 and completed in 1895, will, when the new series of five or six volumes is issued, be practically an index to all the medical literature of the world up to the end of this century. The library of the New York Academy of Medicine was commenced in 1847 and now contains 33,100 volumes and 13,000 pamphlets. The medical department of the public library of Boston was founded in 1882 and now includes 19,600 volumes. The Boston Medical Library Association, of which Dr. Chadwick has been the librarian since its foundation in 1875, has had a rapid growth from the outset, and now contains 26,000 volumes and 23,500 pamphlets. The summary of Dr. Chadwick's paper in the *Maryland Medical Journal* also gives some useful suggestions for the guidance of librarians and bibliographers.

DEATH DURING THE ADMINISTRATION OF ETHER.

WE are indebted to Mr. Thompson, the resident surgical officer, for the notes of the following death under ether at Leeds Infirmary:—The patient, aged fifty-two, was admitted under the care of Mr. Pridgin Teale for a large abdominal tumour. She was a stout, pallid, unhealthy-looking woman. At 8.40 A.M. on Oct. 21st, 1895, ether was administered to her from a Clover's small portable regulating inhaler. There was no struggling, the pulse remaining regular although somewhat hurried. The abdomen was opened and a large amount of ascitic fluid escaped, revealing the presence of a large sarcomatous tumour occupying both sides of the body and growing from an ovary. After tying the pedicles, the tumour having been removed, the abdominal cavity thoroughly sponged out, and the abdominal wound about to be closed, the respiration and circulation suddenly ceased. The tongue was pulled forward, artificial respiration performed, and a faradaic current applied to the præcordium without avail. Laryngotomy was also practised, but life was extinct. Four ounces of ether had been given throughout the seventy minutes which had elapsed while the operation was in progress. A necropsy revealed secondary growths in the lymphatic glands and in the liver, while the kidneys, which weighed fifteen and three-quarter ounces, showed interstitial nephritis. Mr. Pridgin Teale regarded the death as "due in a great measure to the feeble condition of the patient under a rapid development of ascites from malignant disease." The deaths under ether which are reported from time to time require a very rigid scrutiny. If the account given above covers all the phenomena of the anæsthesia there can be no doubt the death was due to the severity of the prolonged operation upon a patient in an exhausted and anæmic condition. It would be of interest to learn whether any cyanosis or premonitory failing of respiration occurred before the final cessation of the breathing and whether there was much hæmorrhage during the operation. So terrible a condition could hardly have been dealt with save at the cost of severe surgical shock, and it would appear that the fatality was due to that, although occurring under ether. That ether does produce shock by leading to lowering of the bodily temperature has been more than once insisted upon, but it is hardly probable that any other anæsthetic would have produced less shock, so that the selection of ether for this desperate case appears to have been a judicious one.

THE NEW PHOTOGRAPHY.

DURING the past week we have been working in THE LANCET Laboratory with a vacuum tube provided with a platinum disc at an angle of 45° as the anode terminal, which apparently serves to reflect the "x" rays directly on to the photographic plate. It is much more rapid than any tube previously in use, and gives excellent definition of the bones of the hand. The tube was supplied by Messrs. Newton and Co., of Fleet-street, and by appointment we should be pleased to show the apparatus at work in THE LANCET Laboratory to those of our readers who are interested, and to undertake the photography of a few simple cases, which must be only such as are likely to be instructive from a medical point of view.

THE SPANISH LOSSES IN CUBA.

THE world seems just at the present time full of wars and rumours of wars—war actual and potential. Spain, we are told by the Madrid press, will have sent out to Cuba up to the 10th of the present month nearly 118,000 men, in addition to the 13,000 who were in the island when the hostilities began. The official return of the casualties during the first year of the insurrection shows that only 406 perished in battle or from wounds, whereas 3472 died from yellow fever and other diseases. The cost of the undertaking to the Spanish Government is of course very great in comparison with the financial resources of the nation. As regards the state of the Spanish medical service in Cuba and the hospital organisation and arrangements in that island little or nothing seems to be known.

LUNACY REFORM—THE CURATEL SYSTEM.

OUR attention has been called by Mr. Chas. Heneage to the system of dealing with lunatics (and habitual drunkards) obtaining in Austria under what is termed the "Law of Curatel," whereby patients after their discharge from asylums are still subjected to surveillance. Mr. Heneage has himself drawn public attention to this subject in connexion with the Lanchester case, and has advocated the suppression of private asylums, with the transfer of some of them to the State, the abolition of the Lunacy Commissioners and the formation of an International Medical Commission of Lunacy, composed of Austrian, German, and English medical men, with the introduction into this country of the Austrian system. Professor Schlangenhausen, who is an authority on this subject, has published[1] some comments on these proposals, and we are indebted to Mr. Heneage for the text of this article. Professor Schlangenhausen thinks it hardly practicable to abolish private asylums in Great Britain, but considers that these institutions should be placed under State control, and that there should be a State body of experts entrusted with the duty of deciding as to the mental condition of persons confined in such asylums, which should only be permitted to be conducted by specially instructed medical men. He has no doubt at all as to the expediency and necessity of abolishing the Lunacy Commissioners, on the ground that laymen, however well informed, are incapable of deciding scientifically whether a person is sane or insane. The mixed commission suggested by Mr. Heneage might, Professor Schlangenhausen thinks, be useful in the period of transition from the existing to the new system, but it would be superseded by the appointment of the State board of

[1] Wiener Medicinische Presse, Feb. 9th, 1896.

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experts, who would in future report on the mental condition of patients in every public and private asylum. The appointment of such State lunacy guardians from amongst specially educated and qualified physicians in various provincial centres would bring the English system into harmony with the Curatel system, considered by Professor Schlangenhausen, in spite of some defects, to be vastly superior to our method both as regards the welfare of the patients and the protection of the public.

THE NEW DIRECTOR-GENERAL OF THE ARMY MEDICAL SERVICE.

NOTWITHSTANDING that we were recently told in the House of Commons that the appointment of a successor to Sir William Mackinnon was under consideration, and that a further announcement would be made later, it seems to have been the general opinion that the matter had been already decided and that the statement was merely a conventional form of reply to a question in the House. It was rumoured that the appointment of Surgeon-Major-General Jameson was virtually made by the late Secretary for War and recommended to the present one; if so, the recommendation has now been carried out, according to an announcement in the *Times*. As will be seen from our "Services" column the medical department seems to be drifting into an unsatisfactory and discontented condition.

MULTIPLE NEURITIS IN YOUNG CHILDREN.

AT the last meeting of the Neurological Society of New York Dr. Graeme M. Hammond read a paper on a series of cases of multiple neuritis in infants occurring in the city of Bridgeport, Connecticut. There were ten cases in all, and the ages ranged from four months to four and a half years. In the majority of cases there were distinct premonitory symptoms—headache, vomiting, and fever, followed by paralysis, commencing in the lower extremities, spreading so as to involve the upper, sometimes involving the trunk muscles and even those of deglutition. There was pain, both spontaneous and on movement, and the nerve trunks were very sensitive to pressure. There was abolition of knee-jerks and altered electrical reactions. The youngest child affected died of exhaustion after the muscles of deglutition were involved. No similar cases were discovered in neighbouring towns. This brief account of an exceedingly important series of cases is taken from a short summary of the paper referred to in the *Journal of Nervous and Mental Diseases*. We look forward with interest to the publication of the complete account, and it will be of particular importance to know to what extent recovery took place in those cases and whether there was any evidence that the anterior horns were involved in the inflammation as well as the peripheral nerves.

THE PREVALENCE OF MEASLES.

THERE can be no doubt that there is at the present time a remarkable prevalence of measles, which in its widespread distribution throughout the country resembles the influenza outbreaks of the past few years. As with influenza so with measles there is no means of ascertaining the actual incidence, since in hardly any town is this highly infectious malady included in notification returns; but in the attendances at public elementary schools and in the returns of deaths ascribed to measles we have some indication of the extent and severity of the epidemic "explosion." In London last week the number of deaths (126) was the highest reached since June, 1894. Mr. Wynter Blyth, in speaking of the increased prevalence in Marylebone, regrets the lack of notification which, even in the absence of hospital isolation, might be of service in limiting the spread of the disease. He thinks, however, that hospital isolation is desirable and that the shorter period required for treatment in the case of measles as compared with scarlet fever would obviate the need for such extensive accommodation as is requisite to cope with the latter. In many large towns the measles mortality is quite as high as in London—e.g., Birkenhead, Manchester, Salford, Sunderland, Leeds, Birmingham, Leicester, and Norwich, whilst reports of more or less extensive outbreaks leading to the closing of the schools or to steps being taken towards that end are reported from such widely separated places as Burnley in Lancashire, Whitchurch in Shropshire, Wednesbury in Staffordshire, and Gawcott in Bucks.

THE MEDICAL LICENSING BODIES AND MEDICAL AID ASSOCIATIONS.

THE attitude of the qualifying bodies towards those of their diplomates who hold office in medical aid associations is becoming very important. A correspondent lately said that his College—the King and Queen's College of Physicians, now the Royal College of Physicians, of Ireland—"now exacts from all who seek its diploma a solemn undertaking that they will neither hold office in nor associate themselves professionally with anyone holding office in any medical aid association." We have been at some pains to ascertain the exact facts as to the views of the College. There is nothing in the declarations signed by Members and Licentiates on the subject. The College, however, has passed a resolution on the subject which no doubt is the basis of the statement made by our correspondent. If all men were so loyal to the authority of their College and to the spirit of its traditions we should not now have so many things to lament in wrong methods of practice. The following is the resolution of the College on the subject: "That the Royal College of Physicians of Ireland desire to express their disapproval of their Licentiates accepting office in medical aid associations as at present conducted in England, inasmuch as the independence of the physician is destroyed by the system, and the services of the physician are used so as to produce a profit for lay persons."

A PROBLEM IN DIAGNOSIS.

IN a recent number of the *Medical Magazine* an article appears by Dr. Gowers relating a case of peculiar interest and importance. The patient was a student aged twenty-one, with a distant family history of gout and tubercle, and subject to periodical headaches. One day in October, 1894, he went to a swimming-bath, and on coming out had a peculiar sense of fulness and confusion in the head. The following day he had a headache such as he was accustomed to, and Dr. Uhthoff of Brighton, his medical attendant, found the pulse a little rapid and irregular and the temperature slightly raised. A few days later there was swelling of the left upper eyelid and the lid could not be raised. The eyeball was protruded forward and downwards, and there was chemosis of the conjunctiva. The displacement of the eyeball caused diplopia, but the fundi were normal. Two days later the right eye was similarly affected, and on the following day there was an attack of epistaxis relieving the headache which had become severe. Six days after the first swelling was noticed there were a few slight convulsive attacks affecting chiefly the upper lip and the right arm and leg. In the afternoon of the same day there were two severe general convulsive attacks. The next day the swelling of the eyelids was less, the temperature became normal, and the headache subsided. In considering the nature of the case Dr. Gowers directs attention to four points: (1) the symptoms followed a rheumatic course and occurred in a man with a family history of

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gout; (2) the symptoms developed with fever; (3) the course of their development was suggestive of an inflammatory process; and (4) they indicated enlargement of the orbital contents. The conclusion is arrived at that the case was one of orbital cellulitis of rheumatic origin, and the opinion is expressed that the more severe inflammation on the left side may have spread to the membranes, causing irritation sufficient to evoke manifestations at first unilateral and subsequently general. The treatment recommended was inunction of mercury and the administration of salicylates. The patient gradually recovered and remained well for six months. He then had an attack of perityphlitis, from which also he recovered under the use of salicylates.

NERVE GRAFTING FOR INJURY.

AMONG the clinical memoranda in a recent number of the American *Medical News* is a very interesting account of an important case. The report is furnished by Captain Bradley, Assistant-Surgeon in the United States Army. The patient was a trooper who, by a fall from his horse, fractured his humerus. The fracture was an oblique one, and it was complicated from the first by paralysis affecting the extensors of the forearm, giving rise to the characteristic wrist-drop, and no doubt due to injury to the musculo-spiral nerve at the time of the accident. The fracture quickly healed, but the paralysis persisted in spite of treatment by massage and battery. The muscles of the forearm were atrophied, but still reacted to galvanism and to direct percussion. Operation was advised with the view of suturing the nerve if possible, but it was found, after a hard nodular enlargement involving the whole trunk had been removed, that the divided ends could not be brought together. A dog had previously been secured and its sciatic nerve isolated under anæsthesia. A piece of this, five centimetres in length, was taken and carefully sutured into position between the ends of the patient's musculo-spiral nerve and the wound closed and dressed. Union took place by first intention. Unfortunately, on account of change of station, the patient passed away from Captain Bradley's observation four weeks after operation. At that time it was thought that there were indications of returning sensibility over the area of distribution of the affected nerve. All efforts to obtain subsequent details of the patient's progress have been unavailing. It would have been very interesting to know whether any improvement resulted from this procedure.

DEATH UNDER CHLOROFORM AT A DENTIST'S ROOMS.

IN the Report of THE LANCET Commission appointed to investigate the subject of the Administration of Chloroform and other Anæsthetics from a Clinical Standpoint[1] attention was drawn to the alarming number of deaths under chloroform which have occurred while dental operations were in progress. It is matter of no small regret that dental practitioners should not be better informed upon these matters than to permit the employment of chloroform upon their premises as an anæsthetic. There is ready to hand a safe and convenient anæsthetic in nitrous oxide gas, which fulfils all the requirements of the dentist, and this anæsthetic should in dental cases be resorted to rather than chloroform. Had this been done in the case given below there is little doubt that a valuable life might have been spared. A youth aged fifteen required eleven teeth to be taken out to qualify him for admission into the Royal Navy. An appointment was made by a dentist with the youth's own medical man to give chloroform. We do not wish to pillory this particular gentleman, with whom we deeply sympathise, for the terrible disaster with which he is associated; we are aware that very many practitioners adopt the plan he resorted to and recognise it as a routine procedure in dental operations. We must, however, most emphatically denounce it as a dangerous and undesirable one. Chloroform was administered from a towel—a method which easily induces an overdose of the anæsthetic—and the pulse was kept under observation. We read nothing of the respiration or the pupil, though doubtless they, too, were kept under observation. The dentist removed one tooth and finding the second somewhat difficult some delay arose, during which the boy partly came round. The chloroform was readministered and the remaining teeth were removed. Then the patient died. In a report which is before us we read that the medical man in his evidence said, "Turning round again he noticed a change in the patient's condition." It is significant how often "going wrong" occurs when the back is turned. The necropsy—performed by an independent medical man—revealed, we are informed, the startling fact that on examination of this boy, who is described as being in "perfect health" and as having been passed for the Royal Navy at headquarters except as regarded his teeth, that his lungs were in such a condition that "the boy could not have lived above two years." Surely no lesion so serious could have escaped the examination at headquarters and that of the medical man who expressly states he scrutinised the lad before giving the chloroform. The posture of the patient is not mentioned; probably the boy was in a dentist's chair—a position of body unsuited for the administration of chloroform.

[1] THE LANCET, March 18th and 25th, April 1st, 15th, and 22nd, May 6th and 20th, and June 17th, 1893.

SERUM THERAPEUTICS BY RECTAL INJECTIONS.

DR. CHANTEMESSE recently read a paper before the Société Médicale des Hôpitaux in Paris on some investigations he had made in administering various forms of antitoxin serum by means of rectal instead of hypodermic injections. He pointed out that various unpleasant symptoms developed after the hypodermic use of the antitoxins, such as pain at the site of puncture and urticarial or erythematous eruptions. At the present time this treatment is also employed in some diseases in which a septicæmic condition is more or less pronounced. When the liquid is at all irritating (and this irritation may depend upon the method of injection, the idiosyncrasy of the patient, or defective cleaning of the syringe) acute pain may be caused, and at the site of injection there may be a considerable amount of swelling and even the formation of an abscess. Again, in some cases the mere fact of a hypodermic injection causes the greatest distress to the patient. Dr. Chantemesse adopted the plan of introducing the serum by rectal injection in twenty cases, and convinced himself that the fluid was easily and quickly absorbed, and no untoward effects were noted in any of the cases. The bowel was first washed out by means of a simple enema, and then by means of an ordinary enema syringe and a gum elastic catheter of medium size and about twenty centimetres long the serum was introduced into the rectum. This method of administering the serum, even in repeated doses, caused neither pain nor any other unpleasant effects, and was never followed by cutaneous eruptions. The curative effect seemed equally as efficacious as when the antitoxin was given by hypodermic injection. The usual improvement followed as indicated by the general condition of the patient, the fall of temperature and improvement in local conditions, disappearance of albuminuria, &c. The question of the specific action of the serum, the rapidity of the same, and the absence of unpleasant or injurious sequelæ having been solved, the respective doses have also to be considered, whether an equal or larger dose should be

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administered by the rectum than is given hypodermically. Dr. Chantemesse is of opinion from the experience of his twenty cases that the same effect is produced on the disease by the same dose, whether this be given by hypodermic injection or per rectum, but at the same time he considers that further investigations should be made on this point. In severe cases of erysipelas he injected into the rectum 200 or 300 cubic centimetres of the Marmorek serum. This quantity was readily absorbed and no ill-effects followed. In local treatment the serum was mixed with five times the quantity of lanoline, which Dr. Chantemesse considers an excellent application for erysipelatous lesions. By this treatment pain, redness, and swelling were greatly lessened. He has also treated three cases of diphtheria by injecting the antitoxin into the rectum. The cases responded quite as well as did those in which the serum was given hypodermically.

A SESSIONAL meeting of the Sanitary Institute will be held at the Parkes Museum on Wednesday, March 11th, at 8 P.M., when Mr. Augustus C. Scovell, Chairman of the Ambulance Committee of the Metropolitan Asylums Board, will open a discussion on "The Isolation of Cases of Infectious Disease in the Metropolis." The chair will be taken by Dr. Thorne Thorne.

DR. CHRISTOPHER CHILDS, M.A., M.D. Oxon., D.P.H. Camb. and Eng. Conjoint Board, has been appointed an Assistant in the Hygienic Department at University College, under the direction of Professor Corfield. Dr. Childs will begin a course of special lectures and demonstrations on Bacteriology in Relation to Hygiene in May next.

DR. HENRY HICKS, F.R.S., of Hendon, is the new president of the Geological Society, an appropriate honour upon which the profession will congratulate him.

THE council have appointed Dr. Allan MacFadyen to act as hon. secretary of the British Institute of Preventive Medicine.

Pharmacology and Therapeutics.

INJECTIONS OF PHOSPHATE OF SODA IN DISEASES OF THE NERVOUS SYSTEM.

M. CHUCRI NAAMÉ, physician to the Municipal Hospital of Jerusalem, has used hypodermic injections of phosphate of soda in the case of a woman suffering from syringomyelia, and the treatment was followed by some improvement in the patient's condition. The solution used was phosphate of soda, four grammes; glycerine, six grammes; and distilled water fourteen grammes. Disappearance of pains, return of sleep, and diminution of articular thickenings are said to have taken place after a month's treatment, during which time fifty injections were given.

TREATMENT OF SOME SYMPTOMATIC ANÆMIAS.

In the treatment of saturnine anæmia it is recommended to combine iodides with iron and to give sufficient iodide without too much iron. M. E. Hirtz advises the following formula: iodide of potassium, 1 gramme; syrup of iodide of iron, 30 grammes; and simple julep, 100 grammes. The iodide greatly facilitates the elimination of the lead. As adjuvants milk diet and purgatives may be used, especially those having cholagogue properties. The following is recommended as a pill: extract of belladonna and extract of hyoscyamus, of each 1 centigramme. In cases of anæmia due to malaria hydrotherapy is useful, especially in those cases where there is enlargement of the liver and spleen. The cold douches should, however, be given with prudence, lest they should bring on an accession of the fever. In this type of anæmia cinchona and arsenic act better than the iron preparations.

TREATMENT OF CHILBLAINS.

The following formula is recommended as being efficacious in cases of chilblains by C. Boeck: ichthyol, resorcin, and tannin, of each 1 grm.; water, 5 grm. To be rubbed on the affected parts every night. In a few minutes it forms a varnish on the skin, and under its influence, not only the chilblains disappear, but also the diffuse œdematous swellings of the hands and fingers. The drawback to this preparation is that it blackens the skin during treatment, and for eight or fifteen days afterwards. In the case of those people whose occupations prevent them soiling their hands resorcin may still be employed in the following manner: resorcin, 2 grm.; mucilage of gum arabic, and water, of each 5 grm.; and powder of talc, 1 grm. To be rubbed on at night. The following is recommended for the relief of stings of insects: solution of ammonia, 7 parts; collodion, 3 parts; and salicylic acid, 0·3 parts.

AIROL IN CORNEAL ULCERS.

Dr. Gallemaertz, writing in the new Brussels medical journal *La Policlinique* of Jan. 15th, records several cases—some of them very severe—of corneal ulcer in which he found airol,[1] which is a kind of iodised dermatol and may be described as gallate of oxyiodide of bismuth, extremely valuable. In one case, that of a child aged four, there was an abscess of the cornea with extensive hypopion. The state of the cornea necessitated the scraping of the abscess by means of a small curette; then airol was applied and the eye bandaged, the dressing being repeated daily. On the ninth day the bandage was removed and atropine dropped into the eye. The patient was discharged recovered on the eighteenth day, a small leucoma only remaining. In another case, where a strumous child had had repeated attacks of vascular keratitis with photophobia and lacrymation, the ulcerated centre of the lesion was merely touched with airol and a bandage applied. The child slept well and was free from pain the first night; this dressing was repeated daily, and in less than a week recovery was complete. With regard to the method of application Dr. Gallemaertz at first tried dusting the airol over the surface of the eye, but found it produced so much temporary pain that afterwards he contented himself with touching the affected spot with cotton wool dipped in airol, previously applying cocaine in cases where any considerable quantity of airol was to be employed. In conclusion he says that airol is greatly to be preferred to iodoform.

INJECTIONS INTO PULMONARY CAVITIES.

Dr. Guido Scarpa has employed ichthyol injections into phthisical cavities in the lungs with great success, the clinical symptoms becoming much less marked. Indeed, in some cases where the treatment was persistently employed for several months the patients were apparently restored entirely to health. The solutions used varied in strength from 1 to 15 per cent., a weak one being used at first and stronger ones later. The dose was also gradually increased from 15 to 300 minims. The injections were administered every three or four days.

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[1] See THE LANCET, June 22nd, 1895.

EAST LONDON NURSING SOCIETY.—The annual meeting of the East London Nursing Society will be held in the saloon at the London Mansion House on Tuesday next, March 10th. The chair will be taken at 3 P.M. by the Right Hon. the Lord Mayor. The object of the society is to nurse the sick poor of East London in their own homes by means of trained resident nurses, and the report which will be submitted at the annual meeting states that during the year 1895 130,483 visits have been made and 5438 persons nursed. Urgent appeal for funds is made, and whilst mentioning the steady maintenance of the staff as showing the continued support given to their work, the committee regret to call attention to the serious financial difficulty in which they find themselves. Some of the old subscribers have died, and though there has been a slight increase in the always fluctuating supply of donations the result is that their income has been far from sufficient to support the old establishment, and but for the relief afforded by legacies the deficit would have been largely increased.

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THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER X.

Abernethy v. Hutchinson, Knight and Lacey.—The Law of Copyright in Lectures.—Abernethy's Position as Lecturer and Surgeon.—His First Application against THE LANCET. *—The Arguments Employed and their Ill Success.—The Fomentation of Bad Feeling.—A Second and Successful Application for an Injunction.—Wakley's Further Motion. —The Importance of the Case.*

On Friday, Dec. 10th, 1824, Mr. Abernethy, the senior surgeon of St. Bartholomew's Hospital and a great figure in the scientific world, applied to the Court of Chancery for an injunction to restrain the publishers and printers of THE LANCET from issuing his lectures.

The law of copyright in lectures is not very clear or definite. Lectures are peculiar in their character and differ from books, inasmuch as, though they are made public by delivery, they have not necessarily a visible form capable of being copied. Nevertheless, it has been thought right by the legislature to afford them the protection of copyright. The situation of the law with respect to the protection of lectures is exactly the same now as it was in 1823. The author of any literary composition has the right at common law to prevent its publication until he has himself made it public. He does not necessarily forfeit this right by delivering his composition as a lecture. His right after delivery will be decided by 5 and 6 William IV., c. 65:—"An Act for Preventing the Publication of Lectures without Consent." By this Act the author of any lecture or his assignee may reserve to himself the sole right of publishing the lecture by giving two days' notice of the intended delivery to two justices of the peace living within five miles from the place of delivery, unless the lecture is delivered in any university, public school, or college, or in any public foundation, or upon gift or endowment—such lectures being free. Whatever may be the origin of this provision it is little known and probably never, or very seldom, acted upon, so that statutory copyright in lectures is very seldom acquired. If the lecture has not been printed—when it falls under the head of a book—and has not been duly copyrighted according to the above proceeding, what constitutes dedication to the public? This is what the publication of Abernethy's lectures has decided, and Lord Eldon's judgment in the case forms a much-quoted precedent.

The fact that Abernethy objected to the publication of his lectures was perfectly well known to Wakley, for his disapproving words had been actually reported as he expressed them to his class; while certain members of that class, in obvious deference to what they knew to be their lecturer's wishes, had on two occasions put out the lamp in the theatre, thereby by that means to baffle the unknown shorthand reporter. In THE LANCET of Dec. 11th, however, the tenth lecture of the course was reported in full, with no reference to previous threats or the commencement of legal proceedings. The subject of this lecture was Irritative Inflammation, Erysipelas, and Furunculus, and the reporter was a little cruel to the lecturer in his faithful reproduction of the colloquial peculiarities employed by Abernethy in delivery; otherwise nothing in that issue of THE LANCET tends to show that Wakley was aware of the legal exception that had been taken to his proceedings.

"If I am wrong I shall be very happy to have my errors pointed out and corrected. *I'll be hanged* if erysipelas is not always a result of a disordered state of the digestive organs. ..... *Egad*, it is a travelling disease, and, as I say, the parts are disposed to swell. ..... If it be seated in an unimportant part *in the name of G——* let it go on there. ..... O, said the dresser, it is a case of erysipelas and he only came in last week. *Good G——!* said I, is it possible? ..... Ho! he had *his jawing-tacks on board*, as a sailor would say."

These are among the specimens of Abernethy's mannerisms which were set down in THE LANCET'S unchastened report, and it can be readily understood that the speaker found it a little embarrassing to read his expletives in cold print, though he may have felt certain that they had added force to his style and point to his meaning as they fell hot from his lips, and had given a fillip to the interest of his hearers, as apt, probably, then as now to consider attendance at lectures a great bore. The feeling that he was occasionally made to look foolish by the fidelity of the reporter may have been his determining reason in making his application, but it was well understood that as much in the initial proceedings as in the later he was only constituting himself the mouthpiece of his order—the order of lecturers attached to medical schools, whose equanimity was much endangered by Wakley's irresponsible behaviour. Abernethy was second only to Sir Astley Cooper in the surgical hierarchy of London, and was regarded by his juniors with peculiar reverence because in him they saw the great exponent of the great John Hunter's teaching. Failing Sir Astley Cooper, who was bound by his word not to object to the publication of his own lectures, and therefore as an honourable man was bound to refuse to assist others in questioning Wakley's legal position in the matter, Abernethy was the strongest man to pit against Wakley to dispute his legal status in the affair; just as, failing Sir Astley Cooper, Abernethy was the best-known surgical lecturer likely to attract readers to the paper. That Abernethy was put up to fight the battles of his colleagues is undoubted, for he was quite a shrewd, astute man, and would not have had any motion made on his own behalf unless he had felt that in so doing he was conforming to the general wish of others in his position.

When the subject of the motion was mentioned to the Lord Chancellor, Lord Eldon, his lordship put a case to himself and concluded by saying, "I shall make short work of it;" and if his assumption of the questions that would be before him had been completely correct he would have been justified in doing as he promised, but, as will be seen, the great lawyer took a narrow view. The following is the rather extraordinary dialogue which took place between the Lord Chancellor, the Solicitor-General (Sir Charles Wetherell), who represented Abernethy, and Mr. Horne, who was retained by Wakley in the interests of the defendants, Mr. Gilbert Linney Hutchinson, his publisher, and Messrs. Knight and Lacey, his printers.

Lord ELDON: The case is to decide whether a party attending lectures in any branch of philosophy or learning for his own information is at liberty to publish the lectures for his own advantage. I shall make short work of it.

Mr. HORNE: The case is not of the nature your lordship supposes.

The SOLICITOR-GENERAL (who, as can be readily understood, was well pleased with such an obvious proof of bias on the part of the court in favour of Abernethy): Your lordship's mind has caught the whole point in the case, and, in fact, there is nothing more to be decided.

Mr. HORNE: His lordship cannot decide a case he has never heard.

With this view the Lord Chancellor concurred, and being unable to hear the case fully on the day of the application for the injunction, in spite of an appeal of urgency on the part of the Solicitor-General, postponed further hearing to

[1] Chapters I., II., III., IV., V., VI., VII., VIII., and IX. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, 15th, 22nd, and 29th respectively.

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the date suggested by Mr. Horne—viz., Dec. 18th. His Lordship said that no articles were to be made use of in the interim, with the exception of the number then in the press and to be published the following morning. "Let us have no more bleeding until I have examined the patient myself and decided upon his case," was his jocular pronouncement of his interdiction. He evidently felt that his expression of opinion was ill-timed, and Sir Charles Wetherell's commendation of his attitude, meant to confirm him therein, caused him to veer. His premature remark did not, however, escape the notice of the press, although he had consented to a postponement of the trial, for the *Morning Chronicle* of Dec. 11th, 1824, contained the following satirical stanzas of an uncomplimentary sort upon his abuse of his position :—

THE LORD CHANCELLOR AND "THE LANCET."

"A wonder happened t'other day;
I scarce know how to word it:
THE CHANCELLOR, who loves delay,
A case *at once* decided—nay,
Before he even heard it.

"Horne and Wetherell well might stare
To find he never falter'd.
If known next session I know where
Some persons may their speeches spare,
If Eld-n *be so alter'd.*

"Who knows to see *this* change in him
But it may lead to others:—
Befriend the Catholics for a whim;
C-nn-ng will cease to sneak and trim,
And Plunket call them *Brothers.*"

On the second day of the hearing of the motion, Dec. 18th, 1824, an affidavit was put in by Abernethy which at great length cited the circumstances of the delivery of the lectures and gave an account of his calling forth the "hireling of THE LANCET" from the ranks of his students without response. He bitterly inveighed against the appropriation of his copyright, but at the same time protested that he would never withhold from mankind any words of his the publication of which was for the true good of the public. The affidavit of the defendant Hutchinson contended that the publication was made exactly for the good of the public, and, such being the case, free publication ought to be permitted without legal restriction. He further tried to show that there was no precedent for the recognition of copyright vested in verbal utterances. Long and technical speeches from counsel on both sides followed. Sir Charles Wetherell attempted to set up a claim for exclusive copyright in that the lectures were delivered in a private capacity to private pupils. Mr. Horne, on the other hand, maintained that it was Abernethy's public duty to deliver himself of surgical teaching in a public place for the public good; he held that the colloquial style of the lectures sufficiently proved absence of all intention to set up a claim for literary copyright in the way such a claim should be advanced—viz., by issuing the lectures as a book; and, lastly, he alleged that Abernethy's lectures, being merely a *replica* of John Hunter's teaching, contained no matter in which Abernethy had any peculiar property. The Lord Chancellor on the third day decided that he had heard quite enough and, contrary to his suggested opinion of the previous week, refused to grant an application and withdrew the interim order of injunction. But Lord Eldon several times in the course of his judgment said that he would hear an argument upon the point whether there had been a breach of trust or of implied contract. Thus it was temporarily decided that words used in lectures for the public benefit had no copyright vested in them and were liable to be published without reserve for the good of humanity.

THE LANCET of Dec. 18th, 1824, did not contain a continuation of the report of Abernethy's course of lectures, because until the evening of that day the interim order of injunction was in force. The issue of Christmas Day also contained no lecture, being virtually a supplement devoted to an exhaustive *résumé* of the proceedings in Chancery during the preceding week; but the issue of Jan. 1st, 1825, contained lectures XI. and XII., being in direct continuation of lecture X. published on Dec. 11th, 1824, and showing that Wakley's agent had not omitted to take the notes necessary for the subsequent transcription of Abernethy's words, although the Lord Chancellor's decision in the matter was still in abeyance. This resolute and unflinching determination to have his own way in the matter, as far as the law and his own ideas of right and wrong would allow him, was characteristic of the man. He was pugnacious, and to be slapped in the face did not suit his pugnacity; but there was more behind the methodical manner, in which he was careful to leave no word in the course of Abernethy's lectures unreported and no argument, legal or sentimental, of Abernethy's supporters unrefuted, than a love of fighting for a good liberal cause. He was also exceedingly proud of his journal, and at that time an interdiction of the publication of medical lectures might have made a serious difference to the circulation of THE LANCET and the position of its Editor. Many readers would have been lost; the Editor would have had much laborious prospecting to undertake before he could hope to strike an adequate substitute for the scientific wealth contained in the soil of the hospital lecture rooms; and he would have been convicted of having done wrong. But these things do not wholly explain his resolution in the matter of the reporting of lectures and the importance that he attached to a continuance of the practice. As there was more than pugnacity behind his attitude so there was more than self-interest. And the third factor, which dominated the other two entirely, was the reformer's spirit. To report the lectures of the surgical teachers at the big schools was to make a bold and novel attack upon the privileges of a class of men whom individually he might and often did admire as great in the profession that he loved, but whom collectively he considered to be corrupt, selfish, and feeble. Wakley knew that in reporting Abernethy's lectures he was defying and not a little frightening the hospital lecturers, and that amused him. He knew that terror of the verbatim reporter would compel many of them, not usually so circumspect, to be punctual in their attendance, thoughtful of what they had to say, and careful of how they said it, and this result he considered a worthy one for the paper to accomplish. And, lastly, he counted upon issuing to all medical men who required it the assistance that first-class teaching must always be. It was not Abernethy against whom he was measuring himself, for we have his own words repudiating the suggestion at the very time when the interim interdiction was in force, but all who stood between him and the carrying out of his prefatory promises to the profession that they should read these lectures in his columns and be improved by them.

"Had Mr. Abernethy," he writes in a leading article on Dec. 18th, 1824, "consulted his own judgment and inclination rather than the support of that corrupt and rotten system of which he is unfortunately a part, we are very certain that he would not have appeared in Chancery for the disgraceful purpose of throwing new obstacles in the path of medical science. The object of those with whom Mr. Abernethy is in concert is not so much to prevent the weekly publication of his lectures as to effect the destruction of this publication. THE LANCET is not suited to their taste or interest. ....."

His action in the matter was all a part of the reforming spirit. He did not intend to give way to the pleasure of the class whose privileges it had been his intention from the beginning to dispute, and he was most absolutely resolved not to forfeit his word to the rank and file, whose moral and pecuniary support he had demanded on the specific ground that he would publish these lectures for their instruction.

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Having so far won the day and successfully resisted Abernethy's attempt to obtain an injunction he would, we cannot help seeing, have been better advised to let the matter drop. It would have been more graceful and more politic to continue upon the course he had originally shaped for himself without further reference to the defeated arguments of his adversary, but further polemics were in a manner forced upon him by the acerbity with which Abernethy and his supporters received their check. Abernethy, the essence of whose complaint was that Wakley had reported him too faithfully, so that the value of the copyright in his lectures was gone, they having been brought *verbatim* and at a moderate price to the attention of the only public they could hope to enjoy, now said:—

"If the Editor of THE LANCET should still publish my lectures I only know, from what I have seen of those parts of them which have appeared in the newspapers, that they represent me as one of the most pert, balderdash fellows in existence. Any person would say on reading those paragraphs: 'Well, I always thought Mr. Abernethy a well-informed man, and somewhat of a scientific man, too, in the practice of his profession, but I really think he must be a very weak man.'"[1]

Wakley was not the man to allow this aspersion of the accuracy of his journal to go unnoticed. Again, while the *Times* and the *Morning Chronicle* were to a certain extent of opinion that Wakley was right in publishing professional lectures to the profession, one of the contemporary medical journals, *The London Medical Repository*, edited at the time by Copland the lexicographer, expressed disapprobation in terms of unbounded indecency:—

"As to the honesty of the transaction," ran the offensive passage, "it cannot require consideration. A man may just as well go to dine at a *restaurateur's* and, after satiating his own appetite with that portion of the *bonne chère* for which he paid on his own account, carry off the remainder of the landlord's provisions to be sold for a penny a pound to all who might choose to buy; or, perhaps, we may liken the transaction to that of insuring one's house, then setting it on fire, to obtain the large amount for which a very trifling premium was paid."

These were the kind of things that kept up the ill-feeling and impelled Wakley to enter into an elaborate explanation of his reasons for publishing Abernethy's lectures and for intending to continue to do so. Wakley could not sit quietly down under such an insult as was put upon him by his monthly contemporary. On Jan. 8th there appeared in THE LANCET a long article practically daring Abernethy to attempt to interfere again with the publication of his lectures, for it had got abroad that a second application was to be made to the Lord Chancellor upon the ground, suggested by Lord Eldon as an argument to which he would gladly listen, that Abernethy lectured to the students under the protection of an implied *contract limiting their use in instruction.* What they heard to aural A week later, no move in this direction having been taken by Abernethy, Wakley proceeded to demolish the two arguments which had already been put forward by Sir Charles Wetherell in favour of the injunction; an unnecessary proceeding, because on these very arguments the plaintiff lecturer had failed to obtain what he wanted. The first argument was that Abernethy had suffered pecuniary loss by the fact that no publisher would consider favourably the issue of his lectures in book form after they had been disseminated in sixpenny instalments among the profession. The second was that Abernethy had suffered certain pecuniary loss by the abstention of students from his classes who preferred to pay sixpence a week rather than ten pounds a year for the privilege of learning his views. The first argument Wakley did not demolish in a very workmanlike manner. He dealt some hasty blows right and left, but he hardly made his point. He replied that Abernethy's were poor lectures and that action at law had been taken because the lecturer felt that he had been placed at the bar of public criticism as a hospital teacher, and out of regard for present and posthumous fame was anxious to prevent an exposure of his ignorance. All that was good in Abernethy's lectures was, said Wakley, to be found in Hunter's works upon whom immense plagiarism had been practised, and it was impossible to imagine Abernethy enjoying a copyright in his lectures under such circumstances and ridiculous to suppose that a publisher would be found willing to issue them in a collected form. This was not a very good rejoinder on Wakley's part, because it convicted him of bad catering for his public. To the second argument his reply was crushing, for he demonstrated that the students could not abstain from attending Abernethy's lectures if they wished, because of a by-law of the Royal College of Surgeons, recently framed by the Court of Examiners, of which Abernethy himself was at the time a member. On March 19th, 1824, the Court of Examiners resolved that certificates of attendance at lectures on the theory and practice of surgery should not be received from the Court save from the professors of surgery in certain universities, or from the teachers in certain medical schools formally attached to recognised metropolitan hospitals, or from members of the honorary staffs of such hospitals. This by-law, remarkable enough on the face of it, practically compelled all the medical students in London to attend the lectures of some five persons, of whom Abernethy was one, for at that time there was no University of London, and but five hospitals—viz., St. Bartholomew's, St. George's, the United Hospitals, the London, and the Middlesex—had acknowledged schools. Westminster Hospital, though of very ancient foundation, was but a dispensary in James-street until 1834; Charing-cross Hospital was instituted in 1818, but the present building was not erected until 1831, and prior to that date the institution only enjoyed the position of a large ambulance station, having for its particular object the care of the numerous accident cases occurring in the neighbouring streets; University College Hospital and King's College Hospital were founded respectively in 1833 and 1839; and St. Mary's Hospital dates only from 1845. So that when it was pleaded for Abernethy that the publication of his lectures was likely to lead to the diminution of his surgical classes Wakley was, if unnecessarily forcible, certainly unanswerable in saying: "In the name of God, do not let us hear any more of such loathsome trash."

January, February, March, and April of 1825 were allowed by Abernethy to elapse before he made his second application to the Lord Chancellor for an injunction on the ground that his lectures were delivered to persons under an implied contract not to publish them, but at the end of May the application was made and the hearing was commenced on June 10th. Abernethy renewed his application obviously rather in the interests of other lecturers than his own, for at the time his lectures were not being printed in THE LANCET, having been discontinued at the completion of the course some two months previously.

"He may possibly have vanity enough to suppose that we shall reprint his lectures," wrote Wakley. "On this point his mind may be perfectly at ease; our pages have been already obscured with his hypothetical nonsense during six tedious months, and when we read the proof of the last paragraph we felt relieved of a most intolerable incubus."

The result of the second application was that Abernethy was successful. The Lord Chancellor in his judgment to a certain extent went back on himself. He held that the lectures could not be published for profit, that if any pupil who had paid only to hear them afterwards sold them to the publisher he infringed the law, and that the publishers in so

[1] THE LANCET, Jan. 9th, 1825.

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publishing them enacted "what this Court would call a fraud in a third party." He dwelt upon the practical difficulty that existed in bringing home this fraud to anyone where no manuscript was in existence, but did not otherwise allow that there was any difference as far as the author's rights were concerned whether the lecture was delivered from a manuscript or as an extemporary effort. This is the judgment which forms the precedent upon which cases of infringement of copyright in lectures are always decided, and in text-books upon the subject it is the case that is always quoted.

Upon Nov. 28th, 1825, Mr. Horne applied to the Lord Chancellor to dissolve the injunction, granted against Wakley at the previous session, restraining him from continuing to publish or sell Abernethy's lectures in THE LANCET. The motion was unopposed, and Lord Eldon dissolved the injunction. This judgment did not, and does not affect the value of his previous judgment with regard to the legality of the publication of lectures, for the dissolution was granted upon new facts which were brought to the knowledge of the Court. Wakley had all along contended that it was monstrous that Abernethy should by one Act confer upon himself as a member of the Court of Examiners of the Royal College of Surgeons the exclusive right of lecturing in the character of a public functionary, and by another claim the protection due to private lecturers on the ground of the injury which his reputation or pecuniary interests might sustain from the issue of his lectures in cheap form. After the injunction Abernethy had delivered an address to the students on the occasion of the opening of the session at St. Bartholomew's Hospital and this address had appeared in full in THE LANCET, precisely as if no injunction existed, on the ground that it had been delivered by Abernethy in a public capacity. No retaliatory steps were taken by Abernethy. Shortly after this, a few days only before Wakley's application for a dissolution of the injunction, Abernethy tendered his resignation as a surgeon to the governors of St. Bartholomew's Hospital whilst desiring to remain a lecturer to the institution. The governors refused to accept his resignation as a surgeon unless he also tendered his resignation as a lecturer. This recognition of an inseparable tie between the two posts of surgeon and lecturer reached Wakley's ears and supplied him with the very point in his argument for a dissolution of the injunction that he required. "Of course Abernethy's lectures were public property," he said: "they are delivered in his public capacity as surgeon to a public charity and the students of the metropolis must attend them, or lectures from some five or six other functionaries similarly situated, whether they like or no." The facts of Abernethy's offer of resignation to the governors of St. Bartholomew's Hospital were set out in the form of an affidavit, and, no one appearing to represent Abernethy in opposition to a motion for dissolution of the injunction, Lord Eldon removed the restriction.

The case of Abernethy *v.* Hutchinson, Knight and Lacey, which may seem to have been dealt with at unnecessary length, was an important one and warrants the attention that has been given to it. The determined manner in which it was fought had a great effect on the prestige of THE LANCET. It showed the Editor to be a resolute man willing to do battle for his opinions, and it revealed the new paper as one with a large circulation and a substantial pecuniary foundation. That both combatants did not shine to advantage in their every utterance did neither of them any personal harm, for all who watched the quarrel saw in their excited and occasionally illogical remarks only evidence of collision between two self-willed persons determined to look upon a matter from opposite views. Abernethy fought for his order and Wakley fought for his readers. That each of these eminently clear-headed men should by force of circumstances have been driven to contradict themselves out loud shows how very angry they became at different stages of the dispute. Wakley was led to pooh-pooh Abernethy's admirable qualities as a lecturer, having previously extolled them; while Abernethy, the whole gist of whose claim upon THE LANCET for infringement of copyright was that the reports were accurate, was ill-advised enough to insinuate that they were very far from being so. Each, on the other hand, showed remarkable ingenuity in advancing his own opinions, and each won a victory that gained him credit without hurting his foe.

(To be continued.)

THE PUBLIC HEALTH (SCOTLAND) BILL.

BY those who are in a position to make a comparison it is now generally acknowledged that better local machinery for the administration of public health has not yet been brought into use than that which was created by the Scottish Local Government Act of 1889. The sanitary reform which has ever since been in progress in rural Scotland is the best evidence of the excellent work turned out by that machinery. It is also acknowledged that the Public Health Acts of Scotland which it is the duty of the authorities to enforce are the most unsatisfactory and imperfect of any that are in operation in these realms. They are antiquated and complicated, and generally defective. For years it has been the ambition of sanitarians in the northern kingdom to change all this. While they have been making such progress as was possible under the Act of 1867 England and Ireland and London have been the *corpora vilia* on which all kinds of legislative experiments were being made for the benefit of Scottish and other onlookers. The idea has been that what Scotland had lost by delay should in some measure be atoned for by the perfection of the legislation which would ultimately be granted her. When the present Government came into office with its huge majority and its policy of social legislation there was a general belief that the time and the men had come. Nor is the hope to be now abandoned, though the shape which it is proposed that the new legislation should take was not expected and is not to be commended. In explaining the Bill which he has introduced in the Upper House Lord Balfour of Burleigh stated that he intended in the meantime to introduce a Bill to amend the Public Health Act of 1867 and later to introduce another Bill to codify all the laws relating to public health and to swallow up both the Act of 1867 and the amending Act as proposed for the present session. Now if there is one thing more than another which has been the curse of sanitary legislation in Scotland it is the constant passing of amending Acts and the constant staving off of complete and comprehensive measures. The Act of 1867 is already modified by at least five separate amending Acts passed specifically as amending Acts. In addition the various Local Government Acts and the Burgh Police Act really constitute in some of their sections other amending Acts, not to speak of such Acts as those dealing with infectious diseases, food and drugs, dairies, workmen's dwellings, &c. In these circumstances it is little wonder that Scottish sanitary authorities are dead tired of all make-shift legislation. What they want is not an additional amending Act, but the very reverse. They desire one consolidating and all-embracing measure to which they can turn for direction in every matter relating to public health, and which they can enforce by legal proceedings in all circumstances in which legal proceedings can be conceived to be necessary. No doubt Lord Balfour's intention in his amending Act is good. He wants to see how his proposals will be received, and in view of his experience thus gained he will by-and-by frame his consolidating Bill. There ought to be no doubt whatever as to the reception to be met with by his present Bill. He should be told that every clause and line of it will be gladly discussed and decided on in the most friendly spirit, provided only he clearly understands that the clauses are not to go through the preliminary purgatory of an amending Act, but are to pass straight into their final abiding place in a consolidating

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law of public health. The sooner this consolidating Bill is ready the better will it be for all concerned; but even if another session had to elapse before it could be put into shape it would be better to wait for this than in the meantime to place on the statute book a measure which even its author acknowledges to be both temporary and incomplete.

We fail to see that there should be any great difficulty in compassing the whole task during the present session. Lord Balfour is unquestionably following the safe and statesmanlike course with regard to the individual clauses of his amending Bill. He is ransacking the English and London Acts for what is best in them, and in adapting the provisions of these Acts to Scotland he will be able to urge that he is only introducing what has already stood the test of experience. Let him continue to do this with regard to his consolidating Bill—which he says is at present on the stocks—and there need be little delay in getting it launched into the House of Lords. Its launching, indeed, might appropriately follow on the completion in committee of the adjustment of the amending clauses which he has already put before Parliament. And these clauses, till then held *in retentis*, could be comfortably bestowed wherever they would be most useful in the newly-launched consolidating Bill; but, above all, let him be dissuaded from attempting to float the clauses independently of the all-inclusive Bill. Scotchmen are credited with being distinctively and naturally logical. Lord Balfour, we may almost assume, is logical enough to know that his purpose, both primarily and ultimately, ought to be not to complicate, but to simplify and systematise any legislation which he wishes to see carried into practical effect. The legislation is not to be for mere show, but for the solid advantage of the country which he is so well able to represent in Her Majesty's Government.

AUTOCARS FOR MEDICAL MEN.

IN THE LANCET of Jan. 4th we published an illustrated article on horseless carriages, believing that the introduction of the autocar into this country will be widely appreciated by members of our profession. From a hygienic aspect the introduction of horseless carriages upon our metropolitan thoroughfares will be of far-reaching importance, while from the points of view of utility and economy the question is one of great interest. In France and other countries self-propelled vehicles have been in practical use for some time. In this country, however, a promising enterprise is checked by the laws relating to road locomotion, and until these laws are altered little or no progress can be made in testing practically the general usefulness of the cars and motors already on the market. Public opinion, however, is strongly in favour of removing the present restrictions, and strenuous efforts are being made to interest our legislators in the matter. Early last month a deputation from the Self-propelled Traffic Association, introduced by Sir David Salomons, waited upon Mr. Chaplin to discuss the question of remedial legislation concerning horseless carriages, and received from the President of the Local Government Board assurances to the effect that he fully sympathised with their object; that a Bill dealing with the subject was now in an advanced stage; and that, with Mr. Russell, he would do his best to carry the Bill through. From this assurance, and from the fact that various municipal bodies have expressed their approval of an amendment of the present laws relating to the matter, there seems every reason to hope that it will not be long before the right to run self-propelled vehicles upon highways will receive legal sanction. It is a good augury for the movement that the Prince of Wales is taking an active interest in the question. Quite recently His Royal Highness paid a visit to the Imperial Institute and personally tested some autocars placed in that building preparatory to the opening of an "International Exhibition of Motors (Motor Carriages, Cycles, &c.) and their Uses," which will be held at the Imperial Institute from May 9th to August, 1896. At this exhibition the latest developments of carriages whose motive power is oil, steam, electricity, or compressed air will be shown and demonstrated as well as the practical application of motors to all kinds of vehicles. Another exhibition of great interest will, we understand, be held at the Crystal Palace during June (International Horse and Horseless Carriage and Roads Locomotion Exhibition), and it will embrace the whole subject of road locomotion in ancient as well as modern times.

For horseless carriages to become generally popular with individual owners they must present certain features of utility and practicability which are perhaps not so necessary in the case of a public conveyance. Mr. Claude A. P. Truman, L.R.C.S. Irel., &c., who is taking a great interest in the question, has written to us suggesting that the following points are essential in an autocar for medical men: (1) it must be moderate in price; (2) light and handy; and (3) elegant in appearance. With regard to the first point the prices at present asked for these carriages will have to be considerably lowered if they are to become universally popular. From £180 to £200 is too high a figure, but there is reason to believe that the two exhibitions we have referred to will promote competition and reduce the prices to a more reasonable level. With reference to the second point, judging from the carriages we have already seen, there will probably be little difficulty. That the carriages must be elegant in appearance goes without saying, and there is no reason why the conventional style of carriage should not be modified and the æsthetic combined with the useful. Until we have had an opportunity of examining a larger number of vehicles it would be invidious to compare the merits of the few accessible motors on the market, but it would appear that in point of speed the petroleum motors lead the way. Electricity and steam are also being used as a motive power, and their relative merits will shortly, we hope, be put to practical test.

ARMY MEDICAL REPORT FOR 1894.

(THIRD NOTICE.[1])

As regards the army serving abroad we may say that, speaking generally, the health of the troops in 1894 was good and that there was no severe epidemic or matter of unusual importance to be chronicled during that year. At Gibraltar the death-rate was only 2·97 per 1000, although the admission and constantly sick rates had somewhat increased, as compared with those of the previous year and with the similar average ratios for the preceding ten years. Enteric fever caused 26 admissions and 6 deaths, being in the ratios of 5·5 and 1·27 per 1000 respectively. Other forms of continued fever caused 112 admissions. The medical officer of the station hospital considers that the milder and shorter cases differ in their etiology from the severe and more protracted ones; the latter, he believes, being due to some specific cause, such as drain effluvia. None of these cases, however, proved fatal, thus differing from cases of enteric fever, which in some respects they resemble. At Malta, with an average strength in 1894 of 7911 (excluding the Royal Malta Artillery), the death-rate was 5·81 and the admission rate 639·5 per 1000 respectively. Febrile and venereal diseases were the chief causes of sickness, but these were nevertheless less prevalent than usual. Enteric fever caused 42 admissions and 12 deaths, giving ratios which are lower than those of the preceding year or the average rates for the previous ten years. Dysentery was the cause of 24 admissions and 1 death. Under the head of simple continued fever there were 834 admissions and 4 deaths. At Gozo there were two epidemics of influenza. Altogether 126 cases of that disease occurred in the garrison in 1894. There was some overcrowding of the barracks, but as about half the troops slept during the summer months under canvas in their vicinity no injury to health could be traced to this cause. The new barracks at Imtarfa were not completed in 1894. Separate buildings for the treatment of infectious diseases, and hospital accommodation for the women and children, are referred to as important requirements for this garrison. We may pass over Cyprus, with its death-rate of 3·45 per 1000, with the remark that there was no case of eruptive fever in 1894 and enteric fever had not appeared since 1890, but there were 34 admissions from simple continued fever and only 1 case of ague in that year. There is nothing calling for remark under the head of Canada, but as regards Bermuda the state of health of the troops stationed there

[1] The First and Second Notices were published in THE LANCET of Feb. 22nd and 29th respectively.

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during 1894 and in previous years is not so good as it should be. The climate is delightful during the winter and attracts many visitors from the United States, and though hot and moist in summer it is not unhealthy or apparently malarious. The death-rate from all causes in 1894 was 8·51 per 1000. Enteric fever is, however, far too prevalent in Bermuda. It caused 22 admissions and 5 deaths, being in the ratios of 15·6 and 3·54 per 1000 respectively. St. George's seems to have been the chief sufferer, where 10 cases occurred—all of severe type. We strongly suspect that either the method of storing the water at this and other stations in Bermuda or the state of the drainage in allowing of soakage into the soil (coralline formation) is to blame. The somewhat regular recurrence of this fever and the liability to outbreaks of it in different years—at St. George's, for instance—call for careful sanitary investigation, in view of determining whether its causes cannot be removed. At the Mauritius, with a strength of 583, the admission rate was 1301·9, the death-rate 10·29, and the invaliding rate 20·58 per 1000 in 1894, which are nevertheless an improvement on those of previous years. Malarial fevers gave rise to 347 admissions and 3 deaths, being in the equivalent ratios of 595·2 and 5·14 per 1000 respectively. Of the total admissions under this head 210 were from remittent fever, 136 from ague, and there was 1 case of malarial cachexia. What a field this station and the West Coast of Africa present for the study of malaria and the microscopic examination of the blood for Laveran's blood parasite—the plasmodium and its varieties. The profession in this country would be glad to know what has been done in connexion with such ample opportunities as are afforded in this respect at these stations. The medical history of the Mauritius in regard to malarial fever is a somewhat singular and striking one. The island used to be healthy and not exceptionally malarious, but many years ago quite an extensive epidemic of malarious fever and dysentery occurred and was very fatal, the death-rate was enormous, and since that time this fever has been much more prevalent, especially at Port Louis and along the seaboard. The troops have of late years been to a great extent stationed in the uplands—at Curepipe—away from Port Louis. As regards India the health of the troops serving in the three commands is shown in the following table:—

—	Average annual strength.	Ratio per 1000 of mean strength.					Average sick time to each soldier.	Average duration of each case of sickness.
		Admitted.	Died.	Invalided home.	Invalids discharged.	Constantly sick.		
							Days.	Days.
Bengal ...	44,160	1565·4	19·16	23·91	16·03	94·71	34·57	22·08
Madras ...	13,407	1272·2	10·37	28·86	15·29	88·71	32·38	25·45
Bombay ...	13,416	1548·9	15·50	27·21	12·22	84·83	30·96	19·99
Total ...	70,983	1506·9	16·81	25·47	15·17	91·71	33·47	22·21
Ten years 1884–93	606,344	1562·6	16·27	26·54	13·97	83·57	30·50	19·65

A table at page 107 of the report shows the influence of length of service in the country on the sickness, mortality, and invaliding, from which it may be gathered that the first year's service furnishes the highest admission-rate, the ratios of succeeding periods gradually diminishing. The highest ratio of mortality is among men in their first and second years of Indian service and lowest in their fifth, after which it steadily rises. Venereal disorders, ague, and enteric fever were the prevalent diseases; the latter (enteric fever) caused 1069 admissions into hospital and 300 deaths in the Bengal Army in 1894. The disease occurred in every district and, with five exceptions, in every station in the command. At Umballa, where there were 68 admissions and 20 deaths, the medical officer considers the character of the water-supply excludes water-borne typhoid as the explanation, and looks to defective surface- and subsoil drainage, with a fouled state of the soil, saturated with all kinds of impurities after rain, for the origin of this fever. But the difficulty of excluding contaminated sources of water-supply and other channels of impurity outside the regimental lines comes in here. Within the lines all may be sanitary, but outside them quite the contrary. Officers serving in India appear to be extremely liable to enteric fever, but children seem to be relatively but little affected by the disease in that country. We have in previous numbers of THE LANCET dealt with the remarkable outbreak of cholera at Lucknow in the East Lancashire Regiment, and need not, therefore, refer to it now.

The general health of the troops serving in Egypt, both in Cairo and Alexandria, during 1894 shows a marked improvement, and the mortality also was much reduced compared with the previous year, when almost all the troops, it is stated, had been but a short time in the country. The report on the Egypt command is an interesting one, but information about events in 1894 possesses comparatively little value when published in 1896. The Appendix contains Professor Notter's report on the progress of hygiene for the year 1895, which is always instructive, a list of operations at the Royal Victoria Hospital, Netley, with remarks on some of the operation cases, and other papers, among which we may refer to some interesting "notes" by Surgeon-Captain Russell on "Revisiting the Medical Schools," and an article on "Certain Forms of Injury to the Eye," by Surgeon-Major Simpson, M.A., M.B., derived from the results of his practice while doing duty at the Royal Arsenal, Woolwich.

ELECTION OF DIRECT REPRESENTATIVE FOR IRELAND ON THE GENERAL MEDICAL COUNCIL.

THE following is an analysis of the voting in the recent election to the General Medical Council of a direct representative for Ireland:—

Mr. W. Thomson	866
Dr. J. Cuming	757
Dr. A. H. Jacob	455
Spoiled votes	4
Votes received too late	4
Votes not recorded	682
Number of voting-papers sent out	2768

THE BRITISH MEDICAL ASSOCIATION AND MEDICAL DEFENCE.

A GENERAL MEETING of the Metropolitan Counties Branch of the British Medical Association was held at 20, Hanover-square on March 2nd to discuss (1) The Relation of the Association to the Question of Medical Protection and Defence; and (2) The Relation of the Profession to Medical Aid Societies. Owing to want of time only the first question was discussed.

Sir WILLIAM PRIESTLEY, the president, opened the meeting by pointing out the great importance of the subject under consideration and the desirability of taking as wide a view of it as possible.

Dr. LOVELL DRAGE, after pointing out some great defects in the organisation of the medical profession as a political body, moved the following resolution: "That in the opinion of the Metropolitan Counties Branch the time has arrived when the Association should take up the matter of medical defence individually and collectively."

This was seconded by Mr. NELSON HARDY, who dwelt on the necessity for immediate action and commented on the tardiness of previous councils.

Sir WALTER FOSTER, M.P., said that in the past the councils had to deal with legal difficulties which within the last few years had been removed, so enabling the memoranda of association to be altered to meet the present case much more easily than in former times.

Dr. DOCKRELL wished to clearly understand what was meant by medical defence, and proposed an amendment to the effect that all legal disabilities should be got rid of before taking any further steps in the matter. This amendment, however, after some debate was withdrawn.

The resolution was then put to the meeting and carried unanimously.

Mr. NELSON HARDY, seconded by Dr. ALDERSON, proposed that a special general meeting of the British Medical Association be called to consider alterations of the memoranda

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of association on the principles laid down by their legal adviser, Mr. Eustace Smith.

Dr. LOVELL DRAGE, seconded by Mr. BUTLIN, proposed that the further course of the matter be decided by the council of this branch.

Sir WALTER FOSTER, M.P., thought that these two proposals might with advantage be combined.

Finally, it was unanimously decided—"That the resolution already passed be sent to the Council of the Association with a request that they will draw up a scheme for medical defence and will submit it at an early date to a special general meeting of the British Medical Association."

"THE COMPARATIVE NUTRIENT VALUE OF MEAT PREPARATIONS."

A JOURNAL entitled *Food and Sanitation* is still yelping at us. Its latest number contains an article with the heading "THE LANCET on its Defence," which reproaches us with tardiness in response to some exposure of us which it would seem to have been making, while it finds a recent annotation in these pages upon the value of certain meat preparations to be "a model of patronising superiority." Our contemporary thinks that the nutrient value of Valentine's Meat Juice is about equivalent to that "of the water in which dinner plates are washed." We, on the other hand, know this opinion to be rubbish, and have challenged our contemporary to appoint, with our approval, an analyst of well-known repute to undertake an independent analysis, and to publish it side by side with the analysis upon which this opinion is based. No notice has been taken of our challenge, but *Food and Sanitation* quotes in support of its funny view (1) an analysis made for it by a past president of the Society of Public Analysts, unnamed; (2) a second analysis made for it by another person unnamed, who has enjoyed the same office; and (3) a "recent" analysis by Professor Chittenden of Yale University. Of the first two of these we say nothing. The figures in them do not agree with our figures, with each other, or with Professor Chittenden's figures. They have just the value that the fact of their appearance in *Food and Sanitation* gives them, and we accord them their due amount of attention by passing at once to the third, merely pointing out that the proprietors of Bovril, a preparation of which we have had on several occasions to speak in terms of well-deserved praise, will take nothing by the ill-judged advocacy of our contemporary. Professor Chittenden's "recent" analysis was not made for *Food and Sanitation*. Its source is not acknowledged by *Food and Sanitation* in its article of the latest date, but it will be found with a *complete* table in an address on the Nutritive Value of Beef Preparations read by the author before the Philadelphia County Medical Association in May, 1891. Of this table *Food and Sanitation*, in its latest appeal to Professor Chittenden, quotes only the column of figures referring to Valentine's Meat Juice, while in a previous article on the subject it quotes only this and the columns referring to Liebig's Extract of Beef and Johston's Fluid Beef. The last name it alters to Bovril. The whole table is as below.

Professor Chittenden's last sentence, which we quote, but which *Food and Sanitation* omits, defines the scope of his investigation. "In the foregoing table of analytical results," he says, "the nutritive value of the different preparations is based simply upon the total amount of proteid matter contained as compared with the amount in fresh lean beef." It will at once be seen that, looked at from this point of view—a limited view, which excludes consideration of extractives and other stimulating constituents—there are four meat preparations given by Professor Chittenden possessing superior nutritive value to Johnston's Fluid Beef, and that this must have been known to *Food and Sanitation* when it used part of Professor Chittenden's table to demonstrate to its readers that the preparation having the same analytical composition as Johnston's Fluid Beef "has enormous advantages over any meat extract preparation." We do not think that our readers will expect us to enter into a controversy with *Food and Sanitation* after this little light upon our contemporary's methods and we do not intend to return to the subject. If it pleases *Food and Sanitation* to continue to put us "on our defence," and to reproach us for "tardiness in answering its exposures," we presume it will take this course. If it finds our attitude of silence "patronisingly superior" we beg to point out that while we have no desire to patronise our contemporary we cannot be blind to the fact that we are the superior journal. Our silence, however, will proceed from a fair assumption that the editor of *Food and Sanitation* does not know how to conduct a controversy decently. We arrive at this conclusion because in the article to which we have previously alluded there is a passage headed in capital letters, "An Early Essay in Blackmail and the Result," in which we are referred for information to a well-known City firm the name and respectability of which give weight to the innuendo. This firm has no knowledge of what is meant, and authorises us to say so, and to say also that the name of the firm has been used wrongly and without sanction.

Percentage Composition of Beef Products, Analysed 1891.

Constituents.	Liebig's extract of beef.	Armour's extract of beef.	Valentine's meat juice.	Wyeth's beef juice.	Bovinine.	Murdock's liquid food.	Johnston's fluid beef.	Arlington Chem. Co.'s beef peptonoids.	Mosquera's beef meal.
Water (at 110° C.)	20·06	14·03	60·31	57·88	81·09	83·99	39·58	6·80	6·68
Solid matter (at 110° C.)	79·94	85 97	39·69	42·12	18·91	16 01	60·42	93·20	93·32
Soluble in water	...	...	...	...	...	...	50·40	48·14	31·26
Insoluble in water	0	0	0	0	0	0	10 02	45·06	62·06
Inorganic constituents	24·04	28·29	11·30	17·52	1·02	0·66	13 52	5·C8	4·23
Phosphoric acid (P_2O_5)	9·13	7·28	4 00	3·94	0·03	0·09	3·91	1·40	1·71
Fat (ether extractives)	0·91	1·27	0·78	0·85	1·49	0·27	1·29	2·95	13·60
Soluble in 80 per cent. alcohol	55·72	67·92	29·15	35·08	...	...	34·10		
Total nitrogen	9·52	8·80	2·68	3·25	2·43	2 29	7·38	4·42	12·36
Nitrogen of insoluble matter	...	...	...	...	...	...	1·46	3 25	7 65
Insoluble proteid matter	...	...	...	...	...	...	9·12	20·30	47·81
Soluble albumen coagulable by heat	0·06	0·68	0·55	0·47	13·98	14·29	0	0	0
Soluble albumoses	0	0	0	0	0	0	0	5·44	11·C9
Peptone...	0	0	0	0	0	0	0	1·87	18·34
Total proteid matter available as nutriment...	0·06	0·68	0·55	0·47	13·98	14·29	9·12	27·61	77·24
Nutritive value as compared with fresh lean beef (lean beef = 100)	0·30	3·50	2·80	2·40	72·40	74·00	47·20	143·00	400·00

SUPERANNUATION GRANT.—Mr. Charles Ingram, M.R.C.S. Eng., late medical officer for the first district of the Blandford Union, has been granted a superannuation allowance of £1 a week for twelve months.

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Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Durham County District.—Dr. Eustace Hill has recently presented to the Durham county council an interesting account of an outbreak of enteric fever which occurred in the autumn of 1895 in the urban district of Leadgate. The outbreak lasted during September, October, and November, most of the cases being notified during September and the first half of October. As, however, Dr. Hill remarks, the dates of notification cannot be relied upon as indicating the dates upon which the patients were taken ill, since several of the cases were notified two or three weeks after the commencement of the illness. There were several interesting points in connexion with the disease. In the first place the percentage incidence up to forty years of age was much more marked upon the males than upon the females, but after this age the excess was on the females. This male excess may perhaps be accounted for partly by the habits and occupation of the working population, but we note that even under ten years of age the disparity still obtained. In its clinical aspects the disease presented some interesting features, such, for instance, as the absence of diarrhœa in numerous cases, and a large number of quite anomalous attacks bearing a strong resemblance to influenza, but often occurring in households where apparently were well-marked cases of enteric fever. The fatality rate of the epidemic was very small—a little over 5 per cent.—and the disease seemed to be possessed of a considerable degree of infectivity. Having regard to the rather anomalous character of the outbreak some remarks on the eruption, condition of the spleen, and the temperature would have been interesting. As to the cause of the outbreak, the Leadgate district is supplied with water by the Consett Water Company, and the same company supplies water from the same source to other districts in north-west Durham. There was thus at hand a controlling factor as regards water-supply, and by an examination of the notification returns of the other districts supplied by the Consett Water Company it was soon apparent that the pollution of the company's water at its source would not explain the outbreak, and that any question of water pollution must necessarily be of a local nature. On examining into the recent history of the water company's operations, Dr. Hill was able to elicit the fact that the main supplying Leadgate suddenly burst on Sept. 1st at a point on the reservoir side of Leadgate and from eight to ten hours the water was cut off from the town. It also seems that at dates antecedent to this the water-supply of Leadgate was turned off. The question, therefore, suggests itself as to whether during one of these intervals the water-mains supplying Leadgate may not have become specifically fouled, and a thesis of this kind seems, on the whole, the best explanation of the outburst. The district is a mining one where settlements of the ground are common, and this fact renders fracture and displacement of sewers and water-mains a not improbable matter. Although water seems to have probably been the most potent factor in the outburst, suspicion rests upon a certain milk-supply as having been at least a subsidiary cause, and the conditions which Dr. Hill's report reveals of the absence of proper control over the milk traffic of the district are certainly such as to call for speedy attention. There is the further fact in connexion with the milk-supply that many of the cows were fed in fields through which sewage-polluted streams passed, but Dr. Hill was unable to ascertain that any of the cows suffered from illness. In addition to water and milk as factors in causation Dr. Hill was led to suspect emanations from sewers and infected privies as having had some share in spreading the disease, and the recommendations with which his report closes have in view the amelioration of all the conditions likely to have had a share in causation.

Aston Manor Urban District.—Mr. Henry May, medical officer of health of this district, is always very prompt in issuing his annual report, and we have just received that relating to 1895. As an illustration of the value of isolation Mr. May observes that in his experience when a first case of scarlet fever in a house is removed to hospital, it has rarely been followed by an extension of the disease to the other members of the same family, whereas non-removal has generally resulted in extension through the household. We should have been glad of some figures in support of this statement, as really reliable evidence on this point is well worth recording, and the subject is by no means a simple one. During 1895 there were 35 cases of small-pox notified in this district, and Mr. May has added these cases to those occurring during 1893–4, and furnished a table in regard to their vaccination &c. which we here reproduce; it will be seen that there were no deaths among vaccinated children under fifteen years of age.

Ages.	Number of cases vaccinated.	Number of deaths.	Percentage of mortality.	Number of cases unvaccinated.	Number of deaths.	Percentage of mortality.	Number of cases stated to have been vaccinated, but no signs.	Number of deaths.	Percentage of mortality.
Under 1 year	—	—	—	4	3	75	—	—	—
Between 1 and 5 years	1	—	—	7	1	14	—	—	—
,, 5 ,, 15 ,,	33	—	—	11	3	27	1	—	—
,, 15 ,, 25 ,,	119	2	2	11	2	18	—	—	—
,, 25 ,, 45 ,,	140	4	3	7	4	57	1	1	100
45 years and upwards	25	1	4	1	1	100	1	1	100
Total	318	7	2·2	41	14	34	3	2	66·6

In the matter of hospital accommodation the sanitary authority are to be congratulated upon their determination to provide a separate building for small-pox well removed from human habitations.

Poole Urban District.—Dr. Herbert Lawton is endeavouring to enforce dual notification in his district, and he reports that during 1895 in only 12 instances did the householder or nearest relative fail to notify to the medical officer of health. The new scheme for the sewage of Poole seems to be advancing in a satisfactory manner, and we are glad, too, to see that Dr. Lawton's repeated recommendations in reference to a revision of the obsolete by-laws have at last been carried into effect. Dr. Bulstrode, of the Local Government Board, has, it appears, been stimulating the authority as to the condition of the dairies, cowsheds, and milkshops of the district. As far as we are able to judge from Dr. Lawton's remarks regulations under the Dairies, Cowsheds, and Milkshops Order seem to have been drawn up by the sanitary authority, but to have been allowed hitherto to remain in practice a dead letter, and Dr. Lawton requests to be supplied with copies of the regulations in order that they may be properly distributed in the district. There are few matters of more importance to the public health, more especially to the infantile population, than a proper supervision of the milk traffic of a district; and it is perfectly obvious that unless the milk vendors know what is the law relative to cleansing &c. they can hardly be expected to comply with its requirements.

Huddersfield Urban District.—In his last quarterly report Dr. Robert Kaye states that the sanitary authority of Huddersfield have resolved to furnish the medical officer of health with a supply of diphtheric antitoxin for the convenience of any medical practitioner in the district who may care to make use of it.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6468 births and 4159 deaths were registered during the week ending Feb. 29th. The annual rate of mortality in these towns, which had been 19·3 and 19·4 per 1000 in the two preceding weeks, further rose last week to 20·0. In London the rate was 20·3 per 1000, while it averaged 19·7 in the thirty-two provincial towns. The lowest rates in these towns were 10·2 in Derby, 12·2 in Cardiff, 13·7 in Burnley, 14·3 in Brighton, and 15·0 in Croydon; the highest rates were 23·0 in Bolton, 23·7 in Manchester, 23·9 in Liverpool, 25·0 in Norwich, and 25·2 in Preston. The

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4159 deaths included 580 which were referred to the principal zymotic diseases, against 512 and 561 in the two preceding weeks; of these, 222 resulted from measles, 156 from whooping-cough, 91 from diphtheria, 41 from scarlet fever, 41 from diarrhœa, 29 from "fever" (principally enteric), and not one from small-pox. No death from any of these diseases occurred in Wolverhampton or in Halifax; in the other towns they caused the lowest death-rates in Burnley, Swansea, Cardiff, and Preston, and the highest rates in Birkenhead, Manchester, Salford, and Norwich. The greatest mortality from measles ocurred in Leeds, London, Birkenhead, Sunderland, Leicester, and Norwich; and from whooping-cough in Derby, West Ham, Manchester, Bradford, and Bolton. The mortality from scarlet fever and from "fever" showed no marked excess in any of the large towns. The 91 deaths from diphtheria included 48 in London, 10 in Birmingham, 6 in Liverpool, 4 in Bradford, and 3 each in Portsmouth, Hull, and Newcastle-upon-Tyne. No fatal case of small-pox was registered in any of the thirty-three large towns. There were 51 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 29th ult., against 64, 60, and 58 at the end of the three preceding weeks; 1 new case was admitted during the week, against 6, 12, and 5 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2933, against 2883, 2944, and 2937 on the three preceding Saturdays; 244 new cases were admitted during the week, against 285, 303, and 234 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 446 to 377 in the three preceding weeks, rose again to 404 last week, but were 213 below the corrected average. The causes of 61, or 1·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Bolton, Oldham, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Preston, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the three preceding weeks, from 18·8 to 19·5 per 1000, was again 19·5 during the week ending Feb. 29th, and was 0·5 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the several towns ranged from 14·0 in Leith and 15·0 in Paisley to 20·8 in Glasgow and 20·9 in Dundee. The 570 deaths in these towns included 27 which were referred to whooping-cough, 17 to diarrhœa, 9 to measles, 6 to diphtheria, 3 to scarlet fever, 2 to "fever," and not one to small-pox. In all, 64 deaths resulted from these principal zymotic diseases, against 66 and 60 in the two preceding weeks. These 64 deaths were equal to an annual rate of 2·2 per 1000, which was 0·6 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 30 and 32 in the two preceding weeks, declined again to 27 last week, of which 17 occurred in Glasgow, and 3 in Aberdeen. The 17 deaths from diarrhœa exceeded the numbers recorded in recent weeks, and included 10 in Glasgow. The fatal cases of measles, which had been 5 and 4 in the two preceding weeks, rose to 9 last week, of which 6 occurred in Glasgow and 2 in Edinburgh. The deaths referred to diphtheria, which had been 10, 5, and 1 in the three preceding weeks, rose again to 6 last week, and included 3 in Edinburgh. The 3 fatal cases of scarlet fever showed a decline of 3 from the number in the preceding week, and included 2 in Glasgow, where the 2 deaths referred to "fever" were also recorded. The deaths from diseases of the respiratory organs in these towns, which had been 105 and 120 in the two preceding weeks, declined to 111 last week, and were little more than a fifth of the exceptionally high number recorded in the corresponding week of last year. The causes of 37, or more than 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the five preceding weeks from 27·4 to 19·8 per 1000, rose again to 28·5 during the week ending Feb. 29th. During the past nine weeks of the current quarter the death-rate in the city has averaged 25·2 per 1000, the rate during the same period being 19·4 in London and 17·4 in Edinburgh. The 178 deaths registered in Dublin during the week under notice showed an increase of 45 upon the number in the preceding week, and included 9 which were referred to the principal zymotic diseases, against 10, 8, and 2 in the three preceding weeks; of these, 5 resulted from "fever," 2 from scarlet fever, 1 from whooping-cough, 1 from diarrhœa, and not one either from small-pox, measles, or diphtheria. These 9 deaths were equal to an annual rate of 1·3 per 1000, the zymotic death-rate during the same period being 3·4 in London and 1·9 in Edinburgh. The deaths referred to different forms of "fever," which had been 2, 3, and 1 in the three preceding weeks, rose again to 5 last week. The mortality from scarlet fever also exceeded that recorded in the preceding week. The 178 deaths in Dublin last week included 21 of infants under one year of age, and 36 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the numbers recorded in recent weeks. Eight inquest cases and 8 deaths from violence were registered; and 67, or more than a third, of the deaths occurred in public institutions. The causes of 8, or nearly 5 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

THE following officers have embarked for India:—Surgeon-Lieutenant-Colonel Swayne and Surgeon-Major Mitchell; and the following have arrived from India:—Brigade-Surgeon-Lieutenant-Colonel H. T. Browne and Surgeon-Majors Butt and Watson. Surgeon-Majors Hughes, Bartlett and Porter, and Surgeon-Captains Cummins and Wilson, and Surgeon-Lieutenant Spencer have arrived from Ashanti. Surgeon-Major Barker has been appointed to Dover, and Surgeon-Captain Allport has embarked for Malta. Surgeon-Captain Dunn has been transferred from India to the Egyptian Army.

INDIA AND THE INDIAN MEDICAL SERVICES.

The Queen has been pleased to approve of the following admissions to Her Majesty's Indian Medical Services:—To be Surgeon-Lieutenants (dated Jan. 29th, 1896). *Bengal:* Archer William Ross Cochrane, William Wesley Clemesha, James Alexander Black, Roger Parker Wilson, Victor Edward Hugh Lindesay, James Currie Robertson, Norman Robinson Jones Rainier, Christopher Dering Dawes, and Edmund Ludlow Perry. *Madras:* Michael Biddulph Pinchard, William James Niblock, Clarence Barrymore Harrison, Ernest Le Fevre Payne, Nicholas Purcell O'Gorman Lalor, Thomas Henry Symons, and Ernest Reinhold Rost. *Bombay:* Chintaman Ramchandra Bakhle and Krishnaji Vishnoo Kukday.

Surgeon-Lieutenant-Colonel Randolph Caldecott to be Brigade-Surgeon-Lieutenant-Colonel, subject to Her Majesty's approval, vice Brigade-Surgeon-Lieutenant-Colonel S. O'B. Banks, promoted. Surgeon-Lieutenant-Colonel Frank Hokins Pedroza, Madras Medical Establishment, retires from the service. Surgeon-Lieutenant-Colonel A. Reid, M.B., Bengal Medical Establishment, to be Medical Storekeeper, Punjab Command, sub. *pro tem.*, vice Brigade-Surgeon-Lieutenant-Colonel C. W. Calthrop, appointed Principal Medical Officer, Malakand Brigade. Surgeon-Major L. A. Wadell, M.B., Deputy Sanitary Commissioner, Northern Circle, Bengal, is appointed Chemical Examiner and Professor of Chemistry in the Medical College, Calcutta.

NAVAL MEDICAL SERVICE.

Jeremiah Sugrue, M.D., has been promoted to the rank of Staff-Surgeon in Her Majesty's Fleet.

The following appointments are notified:—Fleet-Surgeon R. W. Williams to the *Impericuse*. Staff-Surgeons: G. D. Twigg to the *Mersey;* J. H. Thomas to the *Dædalus;* Henry Harries to the *Grafton;* and J. Sugrue, M.D., to the *Buzzard*. Surgeons: H. Huskisson, M.B., and M. P. Jones to the *Victory;* E. T. Tuck, H. G. T. Major, W. R. Trythall, and J. C. Rowan, M.B., to the *Vivid;* C. J. E. Cock to the *Vivid*, to be lent to the *Impregnable*,

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additional for duty in the *Nautilus;* W. D. Adams, M.A., M.B., and M. J. Smith, B.A., M.B., to the *Wildfire* additional for disposal; R. W. Ross, M.B., to the *Pembroke*, additional for disposal; R. J. MacKeown, M.B., to the *Jackal;* H. H. Gill, M.B., to the *Victory;* H. W. G. Green and T. W. Philip to the *Imperieuse;* and R. L. Price to the *Northampton*.

YEOMANRY CAVALRY.

North Somerset: John George Douglas Kerr, M.B., to be Extra Surgeon-Lieutenant under the provisions of paragraph 31 of the Yeomanry Regulations 1894.

VOLUNTEER CORPS.

Artillery: 1st Edinburgh (City): Surgeon-Captain G. R. Gilruth to be Surgeon-Major. 6th Lancashire: Surgeon-Lieutenant J. Lloyd-Roberts, M.D., resigns his commission. 1st Fifeshire: Surgeon-Lieutenant W. H. Goodenough resigns his commission. *Rifle:* 3rd Volunteer Battalion the Royal Fusiliers (City of London Regiment): Arthur Anthony Howell, Gent., to be Surgeon-Lieutenant.

THE ITALIANS IN EAST AFRICA.

When we referred last week to the critical situation of the Italian army in East Africa we had no reason for supposing that a disastrous defeat of the Italian forces in Abyssinia was to be so speedily realised. Intelligence from Massowah, through Reuter's agency, informs us that General Baratieri having decided on the 29th ult. to attack the positions of the Shoan army, the advance took place, and the passes leading to Adowa were captured without fighting, but the whole of the Shoan force having at first attacked the left flank column ultimately extended along the whole Italian front, and after a desperate struggle the Italian troops were compelled to fall back. The fighting took place all day, with the result that General Baratieri was repulsed with the loss of over 3000 men with two general officers and a great part of his artillery. The Shoan force was evidently a very large and formidable one, and the victory won by King Menelek inflicts a most serious blow upon the Italian garrison in Abyssinia, the news of which has naturally produced a feeling of consternation in Rome and seriously embarrassed the Italian Government. This disaster seems to have mainly arisen from want of intelligence as to the position and strength of the Shoan army. Reinforcements amounting to 10,000 men have already been sent to Abyssinia. As the engagement was on a very extended scale and a very severe one the losses must have been correspondingly great, and it is to be feared that the number of medical officers and the hospital service will prove quite inadequate to the occasion, to say nothing of the commissariat difficulties. Italy has always shown herself a friendly Power to England, and a very cordial and sympathetic feeling exists between the two countries; consequently the regret of this country at the news is sincere.

ARMY MEDICAL STAFF AND INDIAN MEDICAL SERVICE.

With reference to the recently published lists of the successful candidates for commissions in the Army Medical Staff and Indian Medical Service we draw attention to the circumstance that while the competition for commissions in the Indian Medical Service is considerable and the quality of the candidates, as shown by the result of the examination, excellent, this is far from being the case when we turn to the consideration of the list of successful candidates for the Army Medical Staff. For the latter service eighteen candidates were required, and would no doubt have been admitted to Netley as probationers had a sufficiency of properly qualified men presented themselves. Only seventeen vacancies were duly advertised, but as one of the surgeons on probation failed to satisfy the examiners at the last examination held in the Army Medical School, Netley, there were really eighteen men required to keep up the strength of the department. The result of the recent examination held in London showed that only nine candidates have been judged fit for admission to undergo the probationery course in the Army Medical School, and of these the last man has only just managed to secure the minimum number of marks required by the regulations. The causes of the unpopularity of the Army Medical Staff as a career, Mr. Brodrick informed the House last week, are engaging the serious attention of the Secretary of State, and a statement upon the subject is promised on the occasion of the introduction of the Army Estimates.

YELLOW FEVER AT RIO.

It seems, according to a telegram from Rio de Janeiro of the 1st inst., that the outbreak of yellow fever on board the Italian ironclad at that station must, indeed, have been a very extensive and terribly severe one, for it is stated in the *Standard* that 225 cases occurred out of a strength of 280, and that 84 proved fatal. The only available quarantine station of Brazil is used as a yellow-fever hospital for the crew of the Italian vessel. The isolation hospital intended for Rio has not yet been completed. The disease has appeared in another vessel, and it is feared a severe epidemic of yellow fever is impending.

The annual dinner of the Militia Medical Staff Corps was held at the Holborn Restaurant on Feb. 29th, under the presidency of Surgeon-Major Collingridge (the Commanding Officer). Among those present were Surgeon-Major Bedford, A.M.S., Surgeon-Captain Harris, A.M.S., and Major Fowler.

Surgeon-Colonel W. Taylor, M.D., Principal Medical Officer in charge of the troops in the recent Expedition to Ashanti, arrived at Windsor Castle on Tuesday, and was received by Her Majesty on the following day.

Correspondence.

"Audi alteram partem."

SUPERANNUATION OF POOR-LAW OFFICERS.

To the Editors of THE LANCET.

SIRS,—As the Poor Law Officers Superannuation Bill is coming before the House of Commons on March 18th it will be imperatively necessary that all Poor-law medical officers should write to, or see personally, their respective members of Parliament, urging their attendance and support on that occasion. I have every reason to expect that the Bill will meet with support from both sides of the House, and if we lose this chance from apathy on our part I fear superannuation will be indefinitely postponed.

I am, Sirs, yours truly,

J. WICKHAM BARNES,
Honorary Secretary, Poor Law Medical Officers' Association.

Feb. 28th, 1896.

To the Editors of THE LANCET.

SIRS,—Will you allow me to urge every Poor-law medical officer to request the member of Parliament of whom he is a constituent to be in his place and support the Poor-law Officers' Superannuation Bill, which comes on for its second reading on Wednesday, March 18th Especially should he be asked to support Clause 20, which says: "Officer includes every officer, whether his whole time is devoted to the duties of his office or not." Otherwise medical officers will find they are left out on the plea that their whole time is not devoted to the service. I trust *all* medical men will take an interest in this question and influence, as far as possible, *every* member of Parliament with whom they are in touch.

I am, Sirs, yours truly,

HORACE EYRE HAYNES,
Medical Officer, Third District, Evesham Union.

Evesham, March 4th, 1896.

"THE COMPARATIVE NUTRIENT VALUE OF MEAT PREPARATIONS."

To the Editors of THE LANCET.

SIRS,—I have not seen the article which appeared in *Food and Sanitation* of Dec. 14th, 1895, and which you refer to in THE LANCET of Feb. 22nd in the annotation under the above heading, though I did hear during a discussion which occurred a few weeks ago between a couple of medical friends and myself on the subject matter of this letter a reference made to something very like it as therein showing the nutrient superiority of bovril over Valentine's meat juice. But I remember reading in a copy of the same paper about twelve to fifteen months ago an article—whether it reproduced it or not I cannot say—of a somewhat similar nature, which at the time took me rather by surprise and left me for a while very much in doubt as to what really were the comparative merits, as nutrients, of bovril and Valentine's

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meat juice. Up to then I always understood that the two preparations, taken as they stand, were, as you say, "not comparable," and not being in a position myself to prove or disprove the statement of *Food and Sanitation* I concluded, when after a little, as far as I am aware, it was not called in question by anyone, that the analyses giving the constituents of each were correct. In these, as far as I can recollect, the nutrient value of bovril was given as being one hundred and fifty-two (152) times greater than that of Valentine's meat juice. This, too, was published with such a degree of confidence as apparently to defy contradiction, which, not being forthcoming, naturally weaned me over to the opinion that I was previously under a misapprehension with regard to these two preparations. Now, your disputation of the figures quoted by *Food and Sanitation* and challenge of their accuracy will, I trust, fully elucidate the matter. I, and I am sure many others, gladly welcome your proposal and will watch eagerly for the result of the investigation. I have since I saw the article I speak of in *Food and Sanitation* prescribed bovril on several occasions where formerly I ordered Valentine's meat juice to my patients, and considering of what vital importance it is both to the profession and to the public to know the best available nutrient in the case of sickness or otherwise I trust the issue will be speedily determined between you and made known as widely and as fully as possible. I am, Sirs, yours faithfully,

Llansilin, Feb. 25th, 1896. R. HILL SHAW, M.B. Dub.

PRELIMINARY TRAINING FOR NURSE PROBATIONERS.

To the Editors of THE LANCET.

SIRS,—The description of the residence for pupil probationers in connexion with the London Hospital and the course of education they have to go through[1] will be read with interest, and to the charitable public will be rather disquieting. Young persons who, at the age of eighteen years or so, are incapable of sweeping a floor or dusting a room, to say nothing of the numerous other unskilled household duties young women at this age are expected to be quite familiar with, are hardly, one would think, fit to enter upon the study of a calling in which the daily duties are so multifarious; but when it is proposed in six weeks' time to turn them out proficient as sick-room cooks, practised surgical dressers, and with a fair knowledge of physiology, anatomy, and hygiene, it seems to me the promoters of this high-class development are attempting the impossible. Tredegar House is doubtless under the government of the hospital, and the cost of its management paid out of its funds, which are subscribed for the benefit of the sick poor, there is no warrant whatever for the managers to waste the money of the charitable on a scheme wholly unnecessary. The fact is, nursing is a fashionable hobby and is well-nigh ridden to death, resulting in disaster to the training of medical students, whose interests have become subordinate to those of the nurse in most of our large hospitals and infirmaries, especially those attached to medical schools. One sees four or five nurses waiting upon an operating surgeon doing all the work which attaches to a dresser, while the students stand by picking up what practice (?) they can as lookers-on. When will the profession shake off its indifference to medical education? How much longer is the control of the funds of our medical charities to be left in the hands of a few governors and lay managers holding office for an almost indefinite period? How much longer are the interests of the medical students to be neglected by their teachers, who hold their position with, and make their large incomes out of, the public by virtue of their attachment to the hospital? Compare the relative position of the medical student and the nurse:—1. The probationer receives a salary at once; the medical student pays a handsome fee for hospital practice. 2. The nurse probationer is taught bandaging, dressing, and, indeed, most minor surgery; the medical student may pick up these as best he can outside the theoretical lecture hall. 3. One dresser is allowed to assist the house surgeon during an operation; four or five women wait upon the operator.

But what benefit do the public receive, who find the material and the money for educating and training nurses? It is reasonable they should have some advantage from the skilled workers they have created. How are they treated by hospital authorities? The fees for the services of trained nurses are simply prohibitive except to the wealthy, for the advent of a nurse into an ordinary household is a matter of grave consideration. Over and above a weekly charge of 1½ to 3 guineas each, all expenses of the house are increased, she must be waited on by the servants, if there be any, which means that additional help must be engaged, and the table of ordinary people is not thought quite equal to the necessities of a trained nurse. The medical man's fees, of course, though moderate by comparison with those of the nurse, are frequently lost sight of altogether, but I believe medical men are frequently to blame for suggesting the services of a nurse when there is no need for such. It is rarely one goes into a family where there are not some female relatives, a wife or a daughter, who look upon it as a sacred duty, and rightly so, to nurse their sick relative, and are quite as capable in the majority of cases of carrying out the instructions of the medical attendant as a professional nurse. There is another advantage in a patient being nursed by a relative: they know their peculiarities and their presence is less irritating than that of a stranger. I have myself known much mischief result to a sensitive patient from the very suggestion that a hireling should be brought in to look after them. Finally, I desire to say that in my opinion the services of hospital trained nurses so long as they are attached to a hospital should be hired out to the public at a cost simply sufficient to cover their salary and all incidental expenses, such as travelling, laundry work, &c.

I am, Sirs, yours truly,

Old Trafford. JAS. BRASSEY BRIERLEY.

[1] THE LANCET, Oct. 5th, 1895, p. 885.

"FUNCTIONAL APHONIA IN MAN; TREATMENT, ETC; WITH SPECIAL REFERENCE TO SO-CALLED VARICOSE VEINS AT THE BASE OF THE TONGUE."

To the Editors of THE LANCET.

SIRS,—The encyclical letter of endorsement of Dr. Herbert Tilley's views under the above heading in THE LANCET of Feb. 29th calls for no reply seeing that it adopts the unscientific attitude of absolute negation so properly deprecated by Dr. McBride. I, however, venture to advise the signatories to compare my article in the *Liverpool Medico-Chirurgical Journal* with the letter of Dr. Watson Williams in your issue of Feb. 22nd. That gentleman, having read the communication, wrote to me in the past week regretting that he had overlooked it and saying that he was "in entire accord with the opinion I have expressed as to the importance of looking beyond the local causes in these affections." Nor does Dr. Tilley's letter merit further notice, for his rejoinder is on an entirely false issue. He has not improved his ethical position by his reassertion of a charge of dishonesty—that of pretending to treat a condition that did not exist—against the physician who had formerly seen one of his patients. I am the more able to say this because from internal evidence I am convinced that this unnamed specialist was not myself. It, however, clearly refers to one of my colleagues at the Central London Throat, Nose, and Ear Hospital, for it is part of the sentence which states that the extravagant doctrine—that functional aphonia is "due to varicose veins at the base of the tongue, the appropriate treatment being cauterisation by means of the galvano-cautery"—emanates from that hospital. For the personal charge Dr. Tilley has no warrant but the hearsay evidence of a single case; while, although he now admits that he received no such suggestion from the surgeon at our hospital whose practice he followed, he cannot get away from the clear inference of his first imputation that such is the teaching at that institution.

I confidently challenge Dr. Tilley and the syndicate of his supporters to produce a tittle of printed evidence that such a pathology and treatment have been taught by myself or any of my colleagues, and I would even go so far as to add by anyone else. I am, Sirs, yours faithfully,

Mansfield-street, W., March 2nd, 1896. LENNOX BROWNE.

P.S.—There is a regrettable and not quite English tendency in recent times for dissentients from any new view or treatment to impute mercenary motives for its adoption. But this assumption of the *rôle* of the "honest broker" is not

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calculated to enhance the good reputation of the specialty for which Dr. Tilley and his friends claim to be solicitous. I have reason to know that this particular application of galvano-cautery at the base of the tongue—on whatever hypothesis pursued—is not confined to those who like myself endeavour to explain the grounds for its performance.

To the Editors of THE LANCET.

SIRS,—Dr. Herbert Tilley, in his instructive article on Functional Aphonia, &c., with reference to Varicose Veins at the Base of the Tongue, asks, Does this condition exist, and if so, with what frequency? Will you kindly allow me to state that while at Vienna last year I heard Professor Chiari make this remark: "I have never seen a case of varicose veins at the base of the tongue that required the galvano-cautery." This was a surprise to me, as it was contrary to what I had been taught in London.

I am, Sirs, yours faithfully,

Leopold-street, Derby, March 3rd, 1896. GEO. FOURQUEMIN.

THE MEDICAL DEFENCE UNION, LIMITED, AND THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

To the Editors of THE LANCET.

SIRS,—In to-day's issue of THE LANCET, at p. 577, Mr. Victor Horsley, in referring to the proposed amalgamation of the Medical Defence Union with the London and Counties Medical Protection Society, is reported to have said at the ordinary general meeting of the former society that a committee of the London and Counties Medical Protection Society "was now sitting to decide the only point of difference remaining between the two societies—namely, as to the name of the amalgamated bodies." We are sure this is an error on the part of your reporter, for Mr. Horsley could not have made a statement conveying that meaning.

The only point remaining for settlement between these two societies, and which alone blocks the way to their amalgamation, is the refusal of the Medical Defence Union to register the new title of the amalgamated societies. The London and Counties Medical Protection Society holds the opinion that neither the name of the Medical Defence Union nor its own name should be left for anyone to trade upon after the amalgamation of the two societies has taken place, and the only way to make this impossible is to register as the full title of the amalgamated societies a name containing the present titles of both. A most suitable name has been suggested and is accepted by both societies, but it must be registered before it can effect its purpose. Mr. Horsley will doubtless have already drawn your attention to this error in your report of his speech, an error which if uncorrected might do harm to the progress of this movement for the union of these two societies.

We are, Sirs, yours truly,

G. A. HERON, W. BRUCE CLARKE, } Delegates of the London and Counties Medical Protection Society.

Registered Offices: 12, New-court, Lincoln's-inn, Feb. 29th, 1896.

"CHROMIDROSIS."

To the Editors of THE LANCET.

SIRS,—Cases of chromidrosis have been recorded in THE LANCET by Dr. Stott and Mr. Temple. A similar case came under my observation in 1887 while acting as house physician to Dr. Finlayson in the Western Infirmary, Glasgow. The patient, a woman aged twenty-three years, was sent in by Dr. A. Patterson on account of perspiration of a greenish-yellow colour which stained her collar, particularly at the back part. A collar which she had worn the day before was produced. It was deeply stained of a greenish-yellow colour, this being somewhat easily dissolved out by cold water. No organic tests were applied, but chemical tests gave negative results. In order to exclude any accidental staining the patient was supplied with a clean collar, a diaphoretic administered, and she was seated in front of the ward fire. Unfortunately, in my absence from the ward she became alarmed and escaped. I was unable to trace her afterwards, but the case seemed genuine, as she had been observed by Dr. Patterson and I believe by other men outside. There was no trace of this staining on any other part of the body, nor could it be accounted for by occupation, menstruation, food, or any accidental circumstance. Over the nape of the neck the skin was thickened, wrinkled, and studded with comedones. The condition had existed for several years.

I am, Sirs, yours truly,

A. T. NISBET, M.B. Glasg.

Newton Abbot, S. Devon, March 2nd, 1896.

OBSTETRIC APPOINTMENTS AT THE GREAT NORTHERN CENTRAL HOSPITAL, HOLLOWAY.

To the Editors of THE LANCET.

SIRS,—Will you kindly do me the favour to give space in THE LANCET to draw attention to a recent advertisement in your columns inviting applications for the (new or vacant I do not know which) post of obstetric physician for out-patients at the Great Northern Central Hospital? Is it fair or right for the authorities of our great suburban hospital in the north of London to make the qualifications for this particular appointment so very exclusive, so debarring, indeed, as to limit the selection of an officer from the ranks of the west-end consulting physicians? The secretary of the hospital informs me that there is "no extern midwifery department at this hospital, so that the duties of the physician (obstetric) are confined to the out-patient department." Evidently the duties are more gynæcologic than obstetric, and as such would, I think, be more efficiently performed by the obstetric surgeon than by the obstetric physician. General medical practitioners in the neighbourhood of the hospital with high medical and surgical qualifications ought not to be ineligible simply because they are not, and for many reasons do not wish to be, members of the Royal College of Physicians. I must respectfully ask why surgeons and general medical practitioners with high medical and surgical qualifications, graduates in medicine of a British university by examination and Fellows of a Royal College of Surgeons of the United Kingdom, are not allowed to compete for these appointments? The duties are generally more surgical than medical, and are in private practice as well performed by the obstetric surgeon as the obstetric physician. Why, then, can the obstetric surgeon not be trusted with the treatment of hospital patients?

I am, Sirs, yours truly,

J. DYSART MCCAW, M.D. St. And.

East Finchley, N., March 2nd, 1896.

THE COLLUM MEMORIAL.

To the Editors of THE LANCET.

SIRS,—The late Mr. Archie T. Collum, M.B. Lond., F.R.C.S.Eng., having for many years been connected with Charing-cross Hospital as a student, house surgeon, surgical registrar, and finally as assistant surgeon, we think it fitting that some kind of a memorial should be established in connexion with this hospital. For this purpose a meeting of past and present students has been called for Tuesday, March 11th, and will be held in the students' club-room at Charing-cross Hospital Medical School at 4 P.M. Dr. Abercrombie, will take the chair. We should be pleased to see all friends who are interested in the above object.

We remain, Sirs, yours faithfully,

March 2nd, 1896. LANGFORD LLOYD, C. THOMPSON BISHOP, } Hon. Secs., Students' Club.

"THE PREVENTION OF LARGE MAMMARY ABSCESSES BY EXPRESSION OF THE MILK."

To the Editors of THE LANCET.

SIRS,—I am glad that Mr. Spencer has called attention in THE LANCET of Feb. 29th to a most useful method of preventing the formation of mammary abscesses, namely, by the relief of tension in the early stages. In March, 1893, I read a paper before the Medical Society of King's College in which I described a very similar method of preventing the formation of such abscesses and of treating them even when they had formed. This was based upon the treatment of

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over twenty cases which I had seen as out-patient surgeon at the Great Northern Central Hospital during three years. In cases where pus has not yet actually formed the procedure is as follows:—A glass bottle of about one pint capacity and with a mouth about three inches in width is thoroughly purified and the mouth smeared with vaseline. A strip of blotting-paper soaked with methylated spirit is ignited and thrown into the bottle. Just before the flame dies out the mouth of the bottle is applied firmly to the distended breast, so that the nipple is in the centre. The rarefication of the air within the bottle causes the breast and nipple to bulge well into the bottle; the little plugs which have caused the blocking of the mammary ducts are suddenly forced out, and the milk flows freely into the bottle, as Mr. Spencer describes it, "like water from the rose of a gardener's watering pot." In this way I have removed over half a pint of fluid and, as I believe, prevented the formation of an abscess. Assuming that a mammary abscess is often, if not always, caused by the entrance of septic organisms *viâ* the ducts, then this is about as perfect a method of getting rid of them as possible, for the milk issuing in so many streams and at such pressure must effectually wash them away. The bottle is then removed and a large dressing applied (the breast having been thoroughly washed with a 1 in 20 carbolic solution), and a bandage applied so as to support it. If pus has already formed I have modified the method as follows. A trocar and cannula of about one-tenth of an inch in diameter is boiled so as to purify it and then plunged into the breast, generally just to one side of the nipple; the trocar is withdrawn and the bottle firmly applied as before. The pus escapes very freely at once, and the ducts are all opened as before, and often pus issues freely from them also. As the pus flows gentle pressure may be exerted upon the sides of the breast, as Mr. Spencer describes. The cannula and bottle are then removed and a large dressing and bandage applied. In only four cases out of a number amounting by this time to over thirty have I had to repeat this procedure; but even if it had to be repeated four or five times it is better than making the large incisions and draining, as is usually done, and I think everybody will admit that an out-patient who is suckling a baby, or who has just weaned it, is in about as bad a condition constitutionally as she can be to bear an anæsthetic, free incisions, draining, and constant dressing. The advantages which I claimed for this method in my paper were:—(1) You remove all the pus and can, if you like, wash out the abscess cavity with some lotion by means of a syringe, the nozzle of which fits the cannula; (2) you do not injure the breast tissue; (3) the patient is able to get about and to be out in the air and is not confined to a room or ward, and dressed twice daily or oftener, with the constant change of drainage-tubes; (4) the amount of pain inflicted is trifling compared with that caused by a large incision and by the subsequent moving of drain-tubes and dressings; (5) no anæsthetic is necessary and the patient is consequently not upset, as is so commonly the case and as everybody knows who has opened a large mammary abscess in a lactating woman; and (6) it is about the best method of removing the cause of the abscess—namely, septic micro-organisms which are blocking up the milk ducts and may have penetrated even further.

By the method above described I have been for some years in the habit of treating abscesses, acute and chronic, in situations other than in the breast and with remarkably good results. In very many cases the trocar and cannula have been inserted through healthy skin in the neighbourhood of the abscess, and so the pus has been "tapped," as it were, and withdrawn. This opens up a large question—namely, whether it is right to evacuate pus through an incision in the inflamed skin over it or through healthy skin in the neighbourhood. This is a question which I hope to be allowed to discuss in THE LANCET shortly.

I am, Sirs, yours faithfully.

PEYTON T. B. BEALE.

Grosvenor-street, W., March 2nd, 1896.

PATHOLOGICAL AND THERAPEUTIC VALUE OF THE ROENTGEN RAYS.

To the Editors of THE LANCET.

SIRS,—I had the advantage on Feb. 15th last at the Camera Club of witnessing the excellent demonstrations by Mr. Campbell Swinton of the effects of the so-called "x" rays of Roentgen. As I have for the last fifteen years been engaged, whenever opportunity offered, in investigating the effects of sunlight on the human body, and especially the penetrating effects of reflected rays from snow and other surfaces, I was naturally led to inquire whether there could be any relation between what I had observed and the observations of Professor Roentgen. Professor Roentgen finds that certain rays, generated or excited by electrical action, penetrate most of the human tissues and other substances, and are stopped by substances of a different nature. I have, on the other hand, demonstrated that reflected *luminous* or photo-chemical rays also penetrate the human skin into the deeper tissues beneath and produce within them great and important changes. It will, I think, be interesting to compare a summary of facts and conclusions of various phenomena observed by me from time to time with those published by you on the "x" rays of Roentgen.[1] 1. That heat *quâ* heat is not the cause of sunburn. 2. That there is strong evidence for believing that sunburn is caused by the violet rays or ultra violet rays of light reflected from snow, which reflected light is not necessarily of the same quality as that which is incident. 3. Captain Abney finds that the violet or ultra violet rays are very strong at high altitudes, and believes that altitude has much to do with sunburn. 4. That altitude alone does not explain sunburn, for one may be unburnt on rocks, say, at 10,000 feet, and yet become immediately affected on descending to a glacier 3000 or 4000 feet lower down. 5. That sunburn and snow-blindness arise from similar causes, and that sunstroke and sun fever may be associated with the effects of penetrating light rays. 6. That rays from the electric light produce much the same results as sun rays reflected from snow. 7. That the bronzing of the skin and the browning of the wooden *châlets* are probably produced by rays reflected from snow. 8. That various pigments, but chiefly those containing red and yellow, stop or alter reflected luminous rays, and prevent the physiological and pathological changes usually due to them. 9. That freckles, which are but the milder effects of luminous rays, stop the penetration of those rays through the skin. 10. That the sometimes very serious inflammatory changes in sunburn and in what Mr. Hutchinson designates "summer eruptions" are due to the penetration of reflected luminous or photo-chemical rays through the skin to the deeper tissues beneath. 11. Photography often demonstrates the existence of freckles and, report says, various eruptions deep in the skin which are perfectly invisible to the naked eye, showing that the luminous or photo-chemical rays are by them stopped or altered and not reflected back as no change is produced on the negative, an effect which suggests that these photogenic rays have penetrating powers as yet unknown. 12. That the wood of Swiss *châlets* is burnt perfectly black (carbonised) on its surface by rays reflected from snow, which rays in time penetrate deeply into the substance of the wood and change it to a deep brown colour. 13. That the first effect of snow rays on a new *châlet* is shown by its action on the resin of the wood, which sweats out and leads more easily to the charring of the woody fibre itself and the subsequent changes in the deeper parts. 14. Captain Maude, R.E., has shown from his own personal experiences and from experiments on many friends in India that direct solar rays in India produced sun fever of a very serious kind, which was entirely prevented by the wearing of an orange lining to all his clothes and inside his hat. These experiments demonstrate the penetrating power of light rays through clothes unprotected by colour and their important influence on health. In relation to this I have shown that a woman wearing a linen blouse with red and white stripes was strongly marked with red and white stripes on her shoulders, but the red line on her skin corresponded to the white lines of the linen—i.e., the red had completely stopped all rays from affecting the skin beneath them. 15. I have often shown that rays reflected from certain surfaces, such as water, gold and silver lace, white walls, white veils, certain clouds and mists, act quite differently from direct light, and that some physical changes hitherto unexplained must take place in light during or after reflection. 16. In relation with the foregoing are those marvellous changes in the vegetable kingdom connected with the formation of chlorophyll and the deposition of starch.

From these and many other observations I cannot help

[1] Sunburn on the Alps: Alpine Journal, November, 1888. Sunburn on the Alps: Edward Stanford, Cockspur-street, S.W. 1890. On the Influence of Solar Rays on the Skin: British Journal of Dermatology, No. 58, vol. v.

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feeling that Roentgen's "x" rays will be shown to be modifications only of ordinary light, and that their further elucidation must go hand-in-hand with a further inquiry into the profound changes caused by reflection to which I have above referred. It need not necessarily be assumed that what we call darkness implies an absence of all the forms of light.

I am, Sirs, yours obediently,

Upper Brook-street, W., Feb. 17th, 1896. ROBERT L. BOWLES.

PUBLIC HEALTH (SCOTLAND) BILL.

To the Editors of THE LANCET.

SIRS,—On a previous occasion I drew attention to the miserable salaries paid to burgh medical officers. As no alteration is to be made in the bodies administering the new Act unless some clause is inserted in the new Act those miserable salaries will continue. Roughly speaking, the burgh contains two millions and a half of the population and rural Scotland contains one million and a half. The cost of medical officers looking after rural Scotland is £11,579. The cost of the medical officers looking after the burgh, including Glasgow, Edinburgh, and Dundee, is £4581, not half what is paid for rural work. I have some experience of both, and the rural work is child's play compared to the burgh. The population of Perthshire is 122,185. Roughly speaking, rural Perthshire contains 61,000 and Perthshire burgh contains 61,000 inhabitants. The cost of the county medical officers is £784 and the cost of the burgh medical officers is £100; or £884 in all. According to Section 8 of the existing Act the board in Edinburgh are entitled to call for reports and returns, but no provision is made for remunerating the medical officers for these reports. Recently, however, the board have had the distribution of some money in aid of salaries. In Crieff the sanitary inspector has a salary of £10 and mine is £7 7*s.* The local authority left mine untouched and raised the sanitary inspector's to £46 16*s.* Even the sanitary inspector did not benefit by the grant as the local authority cut down his wages as burgh surveyor from £60 4*s.* to £23 8*s.*, so that his total earnings were £70 4*s.*, and the grant went into the ratepayers' pockets. The grant is, therefore, liable to abuse. I think the grant should be confined to the medical officers, and should be withheld unless the salary amounted to £10 10*s.* per 1000 of population. This would give for Burghal Perthshire £670 in salaries instead of £100.

I am, Sirs, yours obediently,

Crieff, N.B., March 3rd, 1896. JAMES GAIRDNER.

"THE HADDEN FUND."

To the Editors of THE LANCET.

SIRS,—Kindly insert these additional names and oblige,

Yours faithfully,

JAMES CRAIG,

York-street, Dublin, March 2nd, 1896. Hon. Sec. and Treas.

	£	s.	d.
Dr. Creery, Coleraine.....	0	10	6
Mr. Purcell, Dublin.....	1	1	0
Dr. Day, Cork-street Fever Hospital	1	1	0
Dr. Henry O'Neill, Belfast	0	5	0
Surgeon-Major Blood, Birkenhead.....	1	1	0
Mr. Wayland, Dublin.....	0	10	0
Mr. Pollard, Dunkineely	1	1	0
Mr. Neale, Mountmellick	1	1	0

IS MALIGNANT ENDOCARDITIS INVARIABLY FATAL?

To the Editors of THE LANCET.

SIRS,—In Dr. Hale White's interesting lecture on Malignant Endocarditis reference is made to the occurrence of temporary recovery in this disease, and the question suggested whether the recovery is ever permanent. A few months ago I made a necropsy at the Bristol Royal Infirmary on a case of malignant endocarditis that seemed to have an interest in connexion with this point. Although an endocarditis of malignant character had proved fatal there was evidence that the area of the heart attacked had possessed sufficient vitality to wage a partially successful war against the disease. Vegetations, characteristic of malignant endocarditis, were present on one half of the anterior segment of the aortic valve, and the other half had almost entirely disappeared. A noteworthy feature was, however, that the narrow band that remained had a perfectly healed edge. About a third of the right posterior aortic segment had also disappeared, and this, too, showed a smooth healed edge. Above the first-mentioned segment the coats of the aorta were destroyed down to the sheath over an area about one-quarter of an inch square, but here, also, neither the edge nor the base of the depression showed signs of the presence of active disease. In short, we may say that, although endocarditis of malignant nature still remained, there was a larger area over which it had been present but had disappeared. A somewhat similar case has occurred quite recently. The heart of a woman aged sixty showed malignant endocarditis of the tricuspid valve. In addition to the presence of the characteristic vegetations there was evidence of destruction and healing of one of the cusps. Radiating bands emanated from a fibrous centre causing puckering of the otherwise thin segment and the production of a scar similar to that which follows the destruction of skin by a burn. It may be thought that this puckering was due to a previous attack of rheumatic endocarditis. I think, however, that most of those observers who are familiar with post-mortem work will agree that rheumatism does not produce puckering of this nature. Rheumatism thickens valves along the lines of the fibres running from the attachments of the chordæ tendineæ to the base of the cusps, and consequently does not give rise to irregular deformity. It may also be mentioned that the mitral valve was not thickened, and thickening of the valve would almost certainly have been present had the disease of the tricuspid been rheumatic in origin. Both these cases seemed to me to give unequivocal evidence of somewhat extensive healing in malignant endocarditis. And if such healing can take place there seems no reason why it should not occasionally gain an ascendancy over the destructive process and cause arrest of the disease. Permanent injury to the valves would without doubt follow, but life for a time would be saved.

I am, Sirs, yours faithfully,

Clifton, Bristol, March 3rd, 1896. THEODORE FISHER.

MEDICAL TOUTING.

To the Editors of THE LANCET.

SIRS,—Surely some redress can be obtained, or some power can be appealed to, for the repression of the disgraceful and dishonourable tactics adopted by some practitioners for acquiring patients. Some time since I was informed by a patient (and friend) that a seedy individual had called upon him to know if he would join Dr. ——'s medical club. For the present I refrain from giving the name and address of the medical man in question. This is the second occasion upon which this disreputable method of house-to-house touting has been brought to my notice, and as this is, in my opinion, tantamount to advertising it should fall within the range of duties appertaining to the General Medical Council. If the Council would only erase a few names from the Register for such offences it would certainly have a wholesome effect, for how is it possible to uphold the dignity of our profession before the public if some of its members are allowed to adopt this scandalous method of procedure—of sending his agent among his neighbours' patients to induce them to join his club. I should be much obliged by an expression of your opinion upon this matter as it affects all the respectable practitioners in the vicinity.

I am, Sirs, yours faithfully,

London, S.E., Feb. 28th, 1896. WM. LANSDALE, M.D. Durh.

*** Touting by medical men for patients who are already under the care of brother practitioners is, we think, correctly described by our correspondent as a "scandalous method of procedure."—ED. L.

"THE CHARGE AGAINST AN EX-MAYOR'S DAUGHTERS."

To the Editors of THE LANCET.

SIRS,—The publicity given by the Press to the unfounded charge against my sisters has led to my receiving a large number of sympathetic messages from my fellow-practitioners, many of them strangers to me. I shall feel much obliged if you will allow me through your columns to sincerely thank all these gentlemen.

I am, Sirs, yours obediently,

New Cross, March 4th, 1896. F. GRAHAM HARGRAVES.

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A POINT OF ETHICS.

To the Editors of THE LANCET.

SIRS,—We shall be thankful for an opinion on the following points of medico-ethical interest in an early issue of your widely-read journal.

A temporary maternity is started by public subscriptions, as an experiment, to overcome certain religious and social prejudices at the lying-in period in a certain community, and also with a view to render charitable help at that period to the very poor of that community. Four medical men—A, B, C, and D—are appointed to it honorary physicians by a formal resolution at a public meeting on a footing of equality, and are also appointed members of the managing committee. A has been largely instrumental in the collection of subscriptions and in otherwise developing the idea of the temporary hospital, and in recognition of his work he is also appointed its honorary secretary, and entrusted with its internal or household management. After a few years of experimental work, owing to the united and conscientious efforts of the honorary physicians and the managing committee, the hospital becomes an accomplished fact, and at the end of eight years a regular hospital is built by public subscriptions from the community. Hitherto A's official designation has been always "honorary secretary and physician," and he has signed all official or non-official correspondence as such only. He then tries to change his original designation to that of "secretary and *first* physician." His colleagues protest against it, but the managing committee support his action and appoint him first physician by a formal resolution. This resolution is passed at the end of eight years of their joint work, without even allowing an opportunity to his other colleagues to formally submit their reasons against such a change, and actually in the unavoidable absence of one of them; and as a reason the committee urge that they wish to have somebody at the head of the hospital whom they may consider directly responsible to them for its proper conduct, though A has been, as a matter of fact, responsible for the internal management all these years as the honorary secretary.

We would like to know whether, under the circumstances—1. The committee are right in appointing A to be the first physician, when they are quite aware, and fully admit, that all four were appointed honorary physicians on a footing of equality and by a formal resolution at a public meeting. Are they justified in doing so now after exacting hard work of an honorary character from them for a period of eight years? 2. Is the attempt on the part of A at a change in his designation, indirectly and directly, honourable or justifiable? 3. Is A's special work as secretary and his internal or household management of the hospital as such any justification or claim for the assumption of the title of the "first physician" as is urged by some members of the committee? His purely medical work, as one of the honorary physicians, is equally divided with his other colleagues and is not a whit more responsible or more onerous than theirs. 4. What must be thought of A's conduct from the point of view of medical ethics in thus benefiting himself at the expense of his colleagues, notwithstanding that he has never had any cause of complaint from them and has always received their cordial coöperation and support? 5. Have not B, C, and D reason to believe themselves lowered in their professional status by this assumption of the title of first physician by A if they still continued to work under the new state of things, and would it be so construed, or not, by the profession and the public? 6. Have not B, C, and D sufficient and just cause to resent the action of A and that of the managing committee, and are they not justified in entering a protest for the sake of their own professional reputation, and in fighting for the principle involved by such arbitrary working of a public institution?

Apologising for trespassing at such length on your valuable space, We remain, Sirs, yours faithfully,

D. B. M.,
J. J. C.

B—, India.

*** There can be no doubt, we think, as to the answers to the various questions put to us in the above letter, which may all be answered in one. The managing committee have done wrong in giving the designation of *first* physician to A, and it is to be regretted that A should have in any way sanctioned their doing so. His interest in the institution has been rightly recognised throughout. His colleagues should not act hastily in resigning, though they may justly resent a designation which is inconsistent with that status of equality which should exist among men whose standing and whose services are the same.—ED. L.

THE BATTLE OF THE CLUBS.—XXIII.[1]

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 516.)

LOUGHBOROUGH:—LOCAL EFFORTS DEFEATED BY CONSULTANTS FROM NEIGHBOURING TOWNS.

LIKE its larger neighbour Leicester, the town of Lough borough also suffers from the prevalence of medical aid societies. Formerly there were only the ordinary friendly societies which were managed on old-fashioned lines. About twelve years ago the friendly societies sought to include women and children for the benefits of medical aid. This, as fully set forth in my descriptions of the state of affairs at Portsmouth, was much opposed to the interests of the medical profession, the principle, as already several times explained, being that the medical officer is willing at a sacrifice—that is, for only club pay—to attend the bread-winner in times of sickness. When, however, the bread-winner is in work and in full receipt of his pay, then the medical officer expects to receive the ordinary fees for attending the wife or the children of the members of the club. With this prospect before him the medical officer can and should give the member of the club full and careful attention, treating him as if he was an ordinary private patient. By such treatment young medical practitioners could hope to make a reputation, and thus club practice was a useful stepping-stone for young and rising members of the profession. But at Loughborough, as was recently attempted at Portsmouth, the friendly societies sought to destroy this state of affairs by forming branches or lodges for women and children. The leading medical officer, however, refused to accept these lodges of women and children. Then the Foresters' Society approached a practitioner and asked him to take the women and children. They also held out hopes that in the course of time he would have the men. This, it must be borne in mind, occurred some twelve years ago, when the question of club practice had not yet been raised. Nevertheless, even in these early days the practitioner in question was on his guard. He replied that he was willing to help the poor and the necessitous. If they could prove that the women were really poor he would attend to them at club rates, but not otherwise. This the Foresters declined. They could not, or rather they would not, establish a wage limit. Greatly embarrassed by this state of affairs the friendly societies looked about for some other solution of their difficulty. They found that close by, at Leicester, the friendly societies of that town had amalgamated to open a dispensary where they employed a medical man at a fixed salary, who was debarred from undertaking private practice and compelled to devote himself exclusively to the club patients. Thereupon the friendly societies of Loughborough likewise amalgamated, established a dispensary, and advertised for a medical man. The medical men practising at Loughborough held a meeting, and brought with them to that meeting a list of all their club patients. By thus comparing notes they found that many wealthy persons were members of friendly societies or medical aid clubs. Many tradesmen and all the publicans belonged to such organisations. A resolution was then brought forward to the effect that

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham; (18) Jan. 25th, 1896, Club Practices in Rural and Mining Districts; (19) Feb. 1st, 1896, The Formation of a Provident Medical Association at Folkestone; (20) Feb. 8th, 1896, The Manchester Medical Guild and Medical Aid Associations; (21) Feb. 15th, 1896, The Leicester and Leicestershire Provident Dispensary; (22) Feb. 22nd, 1896, The Organisation of the Profession at Leicester.

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should any medical man accept the post as medical officer to the friendly society's dispensary the members of the profession at Loughborough would refuse to meet him. There was only one medical man who would not sign this resolution, and he in defiance of the opinion of the local practitioners accepted the post offered by the dispensary and served for seven years. During all that time he had a free hand among a population of close upon seven thousand persons. No one competed with him. Nor were the profession at Loughborough able to prevent his obtaining a consultant. Whenever he needed such assistance he was always able to bring a medical man from Leicester, Derby, or Nottingham. Also, on one occasion an emergency arose. There was a bad case of diphtheria. It was a matter of life or death, and then a local consultant thought it was only right to break through the general rule rather than endanger the patient's life. When ultimately the gentleman gave up the post of medical officer to the dispensary the Loughborough medical men rescinded the resolution which outside competition had rendered so inefficacious.

This is another proof that local organisation by itself does not suffice. It is not reasonable to expect the profession to act with greater harmony than it seems was displayed at Loughborough, yet the result was a complete and signal defeat. On the other hand, opinion was not as ripe as it is to-day; and communication between the towns mentioned is so easy that the profession in neighbouring centres must be brought into line so as to defend one another. The successful establishment of the friendly societies' dispensary did so much harm to private practice that, while all suffered, one of the local practitioners was so hard hit that he left the town in despair. One medical man calculates that the establishment of this dispensary reduced his income during the first year of its existence to the extent of about £100. The medical men who worked for the dispensary might have made good incomes out of the same population instead of earning from 2½*d.* to 3*d.* per consultation.

How much abuse must prevail is proved by the failures that have occurred where abuse has not been practised. Thus the Liverpool Victoria Legal Friendly Society, having lost the medical officer who represented them at Loughborough, asked a local practitioner to take up the position. He replied that he would accept *bonâ-fide* working men at 1*s.* per quarter, but not their families. The result was that he did not have more than four or five patients per annum. In the same manner he consented to work for the Pearl Insurance Company. The members were to pay 1*d.* per week for medical aid, but this payment was to be separated from, and have no connexion whatsoever with, the payments they might make for life insurances. Above all, there was to be no canvassing. As these conditions were strictly enforced the consequence was that the Pearl Company did no business worth mentioning in the town. These facts are surely very significant, and show how the organisation of medical aid, especially by insurance companies, is built up with elements that are in nowise entitled to such medical aid.

Some five years ago an effort was made at Loughborough to form a medical provident association which was to be managed exclusively by medical men. All the medical men in private practice were asked to join the organisation. This was a line of action which more recent experience in other towns shows to be full of promise. The time has now come when such a course is likely to meet with better support than in the past. At Leicester the same idea is entertained by several medical men, but it is of little use for the profession to start a dispensary of their own unless each individual medical man ceases to work for other dispensaries or medical aid societies. This is a subject on which, however, I need now only refer your readers to the description of what has been done in this respect at Eastbourne.[2]

If, as is already proposed, an effort is made to bring about united action between the medical men of the county or of the principal neighbouring towns, this will be very heartily supported by the profession at Loughborough. Such action should, it is felt, be directed to the establishment of a wage limit, though not necessarily a uniform wage limit. It suffices, it is urged, to adopt the principle of a wage limit. Local conditions differ so considerably that each locality might be left some discretion as to what that limit should be. Therefore, though the wage limit might vary somewhat from town to town in rural and in urban districts, still it should be publicly established. The medical profession of the entire district should be convoked, and should carefully study the question, and then decide what that wage limit should be in that particular district. Any medical man who after this did not accept the general opinion of the profession and failed to apply the wage limit to his club practice should be treated as unprofessional. If the public were properly informed and made to understand what this meant the position of a recalcitrant medical man would soon become untenable. But if leading physicians and eminent consultants come from neighbouring towns to support such a man, such action will fail. The public will not believe that the conduct of the man who has been declared unprofessional is really looked down upon by the profession when they see that he obtains the aid of some of the best-known consultants, even if these latter do not belong to the district but come from a neighbouring town. It must, therefore, be thoroughly established that the profession in any town or district must respect the wage limit established in any other town and district. Indeed, it should be unprofessional for any medical man to go into any district and do in that district whatever the majority of the local practitioners shall have declared to be unprofessional. It is from such action as this that Loughborough has suffered. As far back as twelve years ago the practitioners of this town might have fought out, and fought successfully, the battle of the clubs but for the hostile or selfish action of consultants from other towns.

[2] THE LANCET, Oct. 5th, 1895.

THE BATTLE OF THE CLUBS AT LINCOLN.

From the annual report for 1895 of the Lincoln Oddfellows Medical Institute, Manchester Unity, we quote the following:

> THE LANCET then sent down a "so-called" special commissioner, whose report they published in their columns on Oct. 12th and 26th, 1895, and subsequently reprinted in the form of a pamphlet, entitled "The Battle of the Clubs: sweating Medical Men at Lincoln"; in which are to be found so large a number of unblushing misstatements, grossly distorted facts, together with false assumptions and equally false conclusions, the wonder is any person could be found to *write*, much less to *publish* them. We are, however, convinced that such methods as these will only recoil on the heads of those who use them, and instead of injuring will the more surely tend to strengthen and consolidate our Institution. Wishing you all a happy and prosperous New Year,
>
> HENRY HOYES, Chairman.
> GEORGE S. JOHNSON, Deputy-Chairman.
> WILLIAM COULSON, Secretary.

Abuse—to use a trite saying—is not argument. It is all very well for Brothers Henry Hoyes, George S. Johnson, and William Coulson to talk about unblushing misstatements, false assumptions, and equally false conclusions, but will they kindly point out to us what they are? We wrote to Brother Coulson for a report of his Institution for 1894, with which he has kindly supplied us. We have compared our Commissioner's report with the figures in the balance-sheet, and find the two accounts tally, except that in places our Commissioner has omitted odd shillings and pence—e.g., our Commissioner says "£32 were paid to secretary, treasurer, and committeemen." The report's figures are: Secretary, £7; sub-secretaries, £24 8*s.* 4*d.*; treasurer, £1; auditors £1; total, £33 8*s.* 4*d.*, so that our Commissioner has, if anything, under-estimated the sum paid to non-medical officials. Again, our Commissioner says: "The dispensers were paid £116." The two medical officers "had given in the course of the year 31,107 consultations and visits, and they have received for this enormous amount of work £384." Turning to the report we find; Visits, 6934; consultations, 24,173; total, 31,107. By medical officers' and dispensers' salaries, £500 17*s.* If we deduct £116 we get £384. We omit the 17*s.*, not knowing whether it was paid to the dispensers or the medical men. Finally, our Commissioner adds up the purely medical expenses and says: "This equals a total expenditure of £758." The report says:

Medical officers and dispensers	£500 17 0
Drugs	161 5 11
Secretary, &c.	33 8 4
Cabs	65 0 0
	£760 11 3

The discrepancy is explained by our Commissioner, as we said, omitting the odd shillings and pence and reckoning the secretary's salary at £32 only. Our Commissioner says the subscriptions paid for medical aid amounted to £989; the report gives £989 9*s.* 2*d.*; deduct £758 medical expenses from £989 9*s.* 2*d.* and we get £231 9*s.* 2*d.*

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This profit is the amount sweated out of medical men or the amount they made by their work which was not handed over to them. Does Brother Coulson dispute these figures? If not, will he kindly tell us what are our "misstatements," false assumptions, &c.

With regard to the United Friendly Societies Dispensary, we are charged by them with causing to be published "a combination of false statements, distorted figures, misrepresentations, and wilful falsehoods which it is scarcely possible to have imagined any person equal to."

We wrote to Brother W. Bavin, the secretary of the same, for a report of his society for 1894, upon which our Commissioner founded his "wilful falsehoods," &c., but hitherto we have not received it. However, if Brother Bavin and his co-official Brothers, P. P. Dickinson, C. Keyworth, and J. Otter will point out to us when and how we have been guilty of wilful falsehood we shall be happy to print their remarks. We may add that in the Manchester Unity the fee per visit or consultation works out as follows:

$$\begin{array}{r} £384 = \\ 240 \\ \hline 15360 \\ 768 \\ \hline 31107\,)92160(\ 2\ \tfrac{29946}{31107}\ \text{pence.} \\ 62214 \\ \hline 29946 \end{array}$$

In the United Friendly Society the fee comes to something under 5*d.* per visit. Truly these sums are living wages with a vengeance.

THE LEICESTER AND DISTRICT PEOPLE'S DISPENSARY.

To the Editors of THE LANCET.

SIRS,—I regret that I did not see the article, No. 22, on the "Battle of the Clubs" in THE LANCET of Feb. 22nd until too late to reply before. In that article you allude to the "People's Dispensary." As I am one of the board, and was with the Rev. A. A. Isaacs, one of the founders of the institution, perhaps you will allow me to correct one or two statements concerning it. In the first place, you say it has not proved a success. I beg to inform you that it has been eminently successful and now numbers 6609 *paying* members, and last year 1837 new members entered; and I may add that we always have a balance on the right side, which was so good at the end of 1894 that we were able to distribute a bonus of £2 all round to both medical staff and druggists. I enclose balance-sheets of last year and 1894, and you will see that at the end of 1895 we had a surplus of assets over liabilities of £174 2*s.* 3*d.*, and we have decided to increase the pay of the medical staff and druggists. You will perceive in the balance-sheet the "death-fund," but that we have decided to do away with. The "People's Dispensary" is now in a very flourishing condition, and I feel sure that if other dispensaries were worked on the same lines, with so little expended on management, they might be able to pay a good fee both to medical men and druggists, which, to my mind, is the fairest way of dealing with this much-vexed question.—I am, Sirs, yours faithfully,

C. F. BRYAN, M.R.C.S. Eng. &c.

Spa House, Leicester, March 3rd, 1896.

*** If 1837 be subtracted from 6609, it will be seen that in the recent past the number of members had, as our Commissioner stated, gone down considerably below 6000. We see by the balance-sheet of the year 1895, which has been forwarded to us by Mr. Bryan, and which was not signed by the accountant until a week after our Commissioner's article was written, that the financial affairs of the dispensary are in a satisfactory state.—ED. L.

The following letter has been sent to every Portsmouth practitioner by the Portsmouth Medical Union:—

"DEAR SIR,—We are desired by the committee of the Portsmouth Medical Union to inform you that it has come to the notice of the Medical Defence Union of London that the practice of employing paid *canvassers* for private medical clubs is carried on in Portsmouth, and that the London Union have intimated that if they can obtain satisfactory evidence that this is done they will bring any ca e before the General Medical Council. The committee of the Portsmouth Medical Union would therefore urge on any practitioner in Portsmouth who may hitherto have adopted this practice to cease from doing so, and not even to support any medical aid society which allows canvassing for its medical officers.—Yours faithfully,

"T. FREDERICK PEARSE.
"J. G. BLACKMAN."

THE ASHANTI EXPEDITION.

(FROM OUR SPECIAL WAR CORRESPONDENT.)

Cape Coast Castle, Jan. 24th, 1896.

SINCE coming down from the front I have taken it very quietly at this port. Surgeon-Major Wilson, in command at the base hospital, has very kindly asked me to go up the hill and take up my abode with him, promising to give me, as I am convinced he would, every comfort and attention at his disposal. I have, however, decided to stay at the hotel near the sea, feeling that a few whiffs of warm sea air will do me good and the better prepare me for a trip home as soon as I feel I am able to undertake the journey. Possibly I may get away early next week, as I do not think anything will be gained by remaining to see all the troops come down, as I am already provided with a store of information.

But let us return to a careful consideration of the various rest camps. Yacumba, the first, and Acroful, the second *en route*, have already been described by me, and now we come to the third one, which is called Dunkwa. This is a native village of some size and importance on our line of communication and distant from Cape Coast Castle about twenty miles. From the excellent character of the soil—a rich chocolate-coloured brown alluvial deposit surrounding the township—and its nearness to the port it may very possibly in the near future become a place of considerable importance should the land be taken up by purchase or hire from the owning chief, and crops of cocoa, coffee, spices, and sugar be grown in the soil so suitable for their production. At present the township is simply a collection of very fairly well-built native mud houses, irregularly dotted on each side of a good wide road, and numbers in population some 500 souls, of which total quite a fourth part are already converted to Christianity and are under the care of the Rev. G. Jones, a cultured, intelligent, coloured Methodist missionary, who has laboured with commendable assiduity for several years amongst this West African community. He informed me that his people have always enjoyed good health, but that south of Dunkwa, at a place called Abusi, some months ago small-pox had broken out amongst the natives, attacking some thirty or more, six of whom had died. Amongst the Dunkwa people constipation was the principal complaint which he, in his capacity of missionary and native doctor, had to treat, and for which ailment he employed the pounded roots of a plant resembling tamarindus indicus, but called by him *swatsi-watsi*. The root, after being well pounded up with lime juice and water until a putty-like mass results, is given in teaspoonful doses. Its purgative effects are produced in about three hours after the dose has been administered. He has also seen a few isolated cases of dysentery, and this complaint will always yield, so he says, to a few doses of a decoction made by boiling down the root and leaves of the lamboya tree, the true botanical character of which has yet to be determined. Natives are also occasionally laid up for a few days with guinea worm, for the extraction of which native doctors have for a long time enjoyed an excellent and exclusive reputation. However, nowadays our own surgeons, especially those colonial officers attached to the Haussas—a body of coloured men particularly liable to be affected—can and do extract them quite as well as, if not better than, their dusky non-professional competitors. During my stay at Kwissa a guinea worm some 2 ft. 6 in. long was removed alive and whole by one of our surgeons from the scrotum of one of the Haussas, the whole operation lasting only seventeen minutes. The surgeon who performed the operation told me that the true habitat of the guinea worm is water, and the Haussas so frequently going through muddy pools with their naked feet are particularly liable to get them in the soles of their feet. Thence they work their way upwards along the leg between the skin

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and fascia until they reach the scrotum, from which part they are frequenly extracted as above described. In the operation alluded to a little water was frequently dropped by the surgeon over the part where the worm was. Its head soon appeared and protruded itself beyond the cuticle. This was immediately grasped and held firmly. In the meantime gentle traction was made by one hand whilst the scrotum was gently kneaded with the other. By degrees portions of the body were gradually secured, and in little over a quarter of an hour the worm itself was extracted entire.

From the Rev. Mr. Jones I also obtained some very reliable and valuable information regarding the snakes which infest the locality. First and foremost in respect of danger from their bites stands the "Keemri," a short, thick, black-hooded reptile, whose poison is said to kill its victim within a few minutes of biting. For this poison no native antidote is known. Is this a species of cobra? Probably so. 2. The "Puffadder," or native "Nanka," a stumpy, thick, brown-coloured snake some two or three feet long, with characteristic dorsal markings. For its bite no antidote is known. 3. The "Pang," a greyish-yellow and black diagonal-marked snake from two to eight feet long, infesting bamboo swamps and marshy land. This reptile will kill its victim in about two hours. For its bite the native medicine men profess to have an antidote, but the nature of the remedy is kept a close secret by the "Ju-ju." 4. The "Red Snake," or native "Cribbin." 5. The "Coomoobaroo," or "Kill Hunters'" snake. These five kinds are by his report all of a venomous character.

Circumcision is common amongst the natives, being usually performed at an early age, infants not more than six or eight months old being subjected to the operation. It is performed by the Mallams, a religious sect, who also profess to teach the Mahomedan religion, the bulk of the natives, of course, being pagans. The food of the Fantis consists of bush snails, casava, yams, plantains, and bananas. One of their principal dishes is called "foo-foo," made from pounded yams, in the preparation of which delicacy considerable muscular energy and great patience are exhibited by both sexes who by turn undertake the pounding of it. After hours of hard work a yellow-coloured, paste-like mass is produced, to which is added some snail soup. All being ready, the natives squat down on their haunches, and taking portions of the food between the first and second fingers and their thumbs insert it in their mouths and devour probably two or three pounds of this farinaceous compound at a single sitting. Hence one cannot pass near any native village or along the line of march where Fanti carriers have been without noticing the enormous quantities of clay-coloured excreta passed by them, being generally more than four times those of a white man. In briefly alluding to the religion of these people I may say "Ju-ju" fetich is principally believed in. It is scarcely correct to say they are atheists—they one and all believe in a Supreme Being. They readily admit the existence of one God; but when asked why then do they not worship Him they say: "God is too good to do us any harm—in fact, He cannot do wrong; but the evil spirit is always doing us harm and he must be propitiated at all risks and hazards." Hence the fetich rites with all their fanatical "Ju-ju" accompaniments.

Although no cases were to be found in Dunkwa I myself noticed amongst our carriers several cases of syphilitic and leprous ulceration. In some instances these sores were dressed with leaves; in others they were dusted over with a reddish kind of powder, which was probably dried and finely powdered camwood.

Their habiliments, except in some cases where there was no attempt to disguise nature, were as varied and parti-coloured as the flowers of the forest. Some wore one kind of costume, some another. The diversity of apparel was simply marvellous. At one spot could be seen an individual with an old brown felt "wide-awake" on his head, a loin cloth completing the articles of his attire. Another, and this time a female forsooth, affected a well-worn chimney-pot hat with a checked shirt of English manufacture to complete the toilet of her glossy, sable form. However limited in character and form their dress may be, it proves sufficient and ample for the climate; there never being a breath of wind to ruffle its folds, decency in consequence is never too grossly outraged.

Their huts are nearly all built of mud in oblong quadrangles containing from two to four compartments, each compartment being raised about two feet and a half from the ground. In the pateo, or centre vacant space, they build up their fires of wood and cook their food They exhibit not the least regard for sanitation. The bush surrounding their huts is the depository of every species of filth and abomination imaginable, whilst all slops and refuse after meals, being simply thrown down just outside the entrance to their domiciles, soon become by accumulation a fermenting and putrefactive mass of corruption. The erection of latrines for the use of the natives has certainly been encouraged by the authorities, but their form is open to objection. They are simply a collection of bamboos, corduroyed at an angle of 45°, with a back rest at the top. No pit is dug, hence all excrement is deposited in heaps on the surface of the ground. The result may be more easily imagined than described, especially as most of these lumps of excreta contain round worms of a prodigious size, which, by putrefying under the rays of a tropical sun, add considerably to the general insanitary surroundings of the place.

So early as half-past five on Dec. 19th we were again on the move towards the Prah, and by 8 A.M. reached a group of huts called Dumasi, where a chief came out of his hut to welcome me with a large bunch of ripe bananas. The trees on our flanks were now much larger and higher and more umbrageous. The magnificent "bombax" may be noticed towering aloft amongst his forest chums. The "elias," whence palm wine is obtained, and the "elias guineensis" (palm oil tree) may be both seen to advantage with their graceful foliage unruffled in the still morning air. The "cocos nucifera" (cocoa-nut), plantains, and yams are also growing extensively by the sides of the road, but there appears throughout a want of systematic cultivation, while many of the young plants seem to have been cut down and ruthlessly destroyed by the Haussas, who have preceded us on the march.

After a slight meal we once more pushed on ahead, and passing through some extensive and high-grown bamboo groves finally reached Mansu at about 4.30 P.M. on the same day. This is a somewhat important village selected as the fourth rest camp, and occupies an elevated position on the left bank of the River Man, which flows, looking up stream, from west to east. The buildings were erected by Mr. Rogers, and consist, as usual, of a number of long bamboo huts which have already been occupied by the Haussas prior to our arrival here. No hospital had yet been put up, nor had its site up to the time of our departure been decided upon. The weather continued fine, the barometer standing at 29.50. The height of the camp may be roughly set down as somewhat over 400 ft. above sea level. The water had to be collected from the river, coursing as it does over a sandy gneiss bed at the bottom of a charming umbrageous glen, the chemical examination of which gave fairly good results, Nessler's solution only affording a slight ammoniacal deposit, probably the result of natives bathing and washing their clothes therein. The temperature at noon in the shade was 87° F., the wet bulb indicating a mean of 81°. About 5 P.M. on the day of our arrival a telegram from the base informed us that the West India Regiment had disembarked at Cape Coast Castle—of which regiment one officer was invalided and twenty privates were reported as unfit for duty—and they might be expected at Mansu about the Sunday following. That afternoon I again observed several Fantis, in spite of the guard put on to prevent them, disporting themselves in the river at a spot where our drinking water came from. The soil is granitic with mica. Large numbers of natives and Haussas were employed under the Royal Engineers erecting additional huts for the West Indian troops just in the rear of the native house I was at that time occupying. At 7 P.M. the temperature had fallen to 78° F., the wet bulb registering 76°. At about 10 P.M., just as we were preparing to retire, one of the sappers employed ahead in erecting the telegraph wire to Prahsu had been sent back ill. On arrival at Mansu he was cold and collapsed, complaining of pains in his back and loins. His tongue was coated and tremulous and the pulse irregular (94), with a temperature of 100·4° F. A dose of phenacetin was administered, and he was put to bed and well wrapped up in blankets. Diaphoresis was soon established, and the next morning before I left he was reported as much better.

Dec. 21st commenced with a gloriously fine morning and quite cool. The harmattan having favoured us with its presence, the barometer on this day stood at 29·57°. After our early breakfast we started for Suta, which we reached about 11 A.M. The refreshing gentle north-east breeze of the early morn had by that time deserted us, there

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being once more not a breath of air to stir the most flimsy leaves of any of the trees around us. On our arrival we found Dr. Croker, one of the assistant colonial surgeons who had been sent for late the previous night to see one of the Haussas, down with a severe attack of diarrhœa. He had left Mansu by hammock about 11 P.M. and had reached Suta about 2 A.M. in the morning. After resting my boys for two hours in this very warm place we set forward again and arrived at Fuso about 4.30 P.M. The barometer registered 29·35° and the thermometer 86° F. A fine evening was succeeded by a lovely moonlit night. There was no rest for camp at Fuso, so I requisitioned a native domicile and was soon comfortably settled therein. A sluggish, offensive looking stream of water crossed the road from east to west at the entrance of this village. On testing it proved indifferent enough, so what I required I had to boil and reboil before I made my customary tea with it.

Sunday, Dec. 22nd, was dull and overcast at Fuso. The barometer registered 29·39° and the maximum temperature of the thermometer at 2 P.M. was 86° F. The latter part of the day was slightly cooler. The mean of the dry bulb was 81¼° and the mean of the wet bulb 79¼°. About noon we heard a fearful noise: tom-toms beating and shouting by natives announced the arrival of the Ashanti envoys on their way up through our lines to Kumasi. They were in charge of a guard of Haussas, and remained at Fuso village during that day and the following night. At 5 P.M. I had a formal visit from the chief of Fuso. He came, it appears, to thank me for having earlier in the day settled a quarrel between one of his native women and some Fanti carriers going back to the coast. These returning porters, it appears, have been in the habit of waylaying females and children bringing fruit and vegetables into market and stealing the goods from the baskets on their heads. Happening to be strolling down the road in the morning I saw one of these illicit seizures, and immediately made the thieving carrier come back and restore the goods to their lawful owner and also compelled him to hand over to her the sum of 3*d*., an amount he would otherwise have had to pay for their lawful transfer. The old chief, I need hardly add, thanked me most cordially for the interest I had taken in the matter and brought with him a "dash" of fruit, which of course I politely refused to accept. A little consideration and kindness shown to Africans, I am convinced, is never thrown away; for on my return, when passing through this same village, I was at once recognised and saluted as an old friend.

On Dec. 23rd, the previous night having been quite cool, the barometer standing at 29·40°, at 6 A.M. we started from Fuso just behind the Ashanti envoys; but soon overtaking and passing by their crowd reached Vinya at 8.30, where we breakfasted beneath the shade of the village trees. Starting after a rest of some thirty minutes we came on to Baracou—another native village six miles only from Prahsu—and at this spot we rested until 3 P.M. During our stay I fell in with a Mr. Harding, an officer in the Colonial Works Department, who was living in a native hut at this place. He asked me to chop with him, an invitation I was only too glad to accept after such a long day's march. From this gentleman I obtained some very useful information respecting the climate and inhabitants. He, it appears, had resided at Salt Ponds and Baracou for some three years. He had come out from England with three other young fellows. Of his companions two had died from fever and one had been invalided home on account of it. He himself had suffered from the same complaint several times—the first being the most severe of all the attacks.

(To be continued.)

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

School Board Education.

THE elementary education of the present day as illustrated by the teaching in some Board Schools is considerably in advance of that anticipated by our forefathers when the Act was framed. A parent writing to a local paper expresses his strong dissent from the subjects taught at one of these schools. An advanced physiology class numbering some forty girls had twenty rabbits given between them to dissect. The animals were killed by chloroform, were cut open, and the girls had to make certain experiments with them. Many of them got their fingers covered with blood and found the demonstration exceedingly disagreeable and distasteful. It seems that the inspector had complained that no practical demonstrations were given in the class of physiology, hence this holocaust of rabbits. I am reminded of the story of an indignant mother who wrote to the head mistress of a similar school: "Please don't teach our Mary Ann no more about her inside, it makes her feel queer; besides, it's rude." Comment is unnecessary when plain speaking of this kind is understood to represent the sentiments of many parents.

Sick Societies and Imposition.

The fifty-fifth annual meeting of the Cannon-street Male Adult Provident Institution was held on Feb. 27th. The report showed that the expenditure had exceeded the income by between £4000 and £5000. The committee were anxious to stop the excessive amount of sickness and indicated the direction of some reforms in this matter. During the year many cases of gross imposition were brought before them. It was suggested that the medical men did not thoroughly examine all the patients before giving them sick notes, and that careful investigation was more necessary. Too many medical men was also spoken of as a cause of harm as being superfluous in the interests of the society. Instances were given where flagrant fraud was practised by members, some of whom had been expelled. Adversity strengthens the desire to make provident habits more valuable and noteworthy, and if this lesson is brought home to the members by their own experience and suffering it will not be without benefit.

Birmingham General Dispensary.

The 102nd annual meeting of the governors of this institution was held on Feb. 26th. It was shown that the total income for the past year was £10,770, including a balance of £398 from the previous year. The expenditure amounted to £10,355. The total number of patients during the year by tickets was 32,774, showing an increase of 677. The average cost of the patients had been 3*s*. 9$\frac{5}{6}$*d*. Various other items of interest were mentioned. The dispensary is a popular institution of the town, next in age to the General Hospital, and is exceedingly well-managed and administered. It possesses four branch institutions with a fifth in course of building. The chairman, in extolling the merits of the charity, stated that it was the only one which could boast that its income had increased and its expenditure diminished during the past year. The usual votes of thanks were passed.

Birmingham Workhouse.

On Feb. 28th, at a meeting of the workhouse committee, a communication from the Local Government Board was read relative to a complaint made by an inmate named Leonard as to the death of another inmate named Fisher. The revision sub-committee reported that they had investigated the statements and had examined the officers referred to—namely, one of the medical officers and the labour master. The committee stated that it was with much regret they came to the conclusion that an error of judgment had been committed by these officers. Criticism has been free in the public press on the transaction. Duties of the kind engaged in by these officers are oftentimes difficult and complicated, yet it must be borne in mind that there are broad lines of definition within which the action of safety may be followed. In public institutions the value of open administration is admitted to be a safeguard to the protection of the inmates, while prudence and attention in the discharge of duty is looked for in those holding responsible positions of trust.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Unlawful Sale of Poison.

AT the Liverpool County-court on the 25th ult. an action was heard in which the Pharmaceutical Society of Great Britain sought to recover a penalty of £5 from an unqualified assistant employed at a local "pharmacy" for having sold poison contrary to Section 15 of the Pharmacy Act, 1868, he not being registered as a chemist under the Act. The defendant sold a quantity of laudanum equivalent to nine grains of opium, and this was one of the poisons scheduled in the Act, and the decided cases showed that an

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unqualified assistant selling such poisons in the absence of his employer, who might be qualified, was liable. The defendant admitted the sale and for the offence committed was fined £5 and costs.

Medical Students' Debating Society.

Of the many societies under the wing of University College, Liverpool, none exhibits more useful and instructive features than that of the College Medical Students. Established some years prior to the absorption of the Royal Infirmary School of Medicine by University College, Liverpool as its medical faculty it worked in a quiet and unostentatious manner, having for its object the reading and discussion of papers and communications on all subjects approved of by its committee, the exhibition of specimens, microscopical and pathological, also the narration of cases and comments on them. The meetings are held once a fortnight during the winter session under the chairmanship of one of its honorary members, who, for the most part, are the professors and teachers attached to University College. Prizes are given by the society and also by some of the honorary staff of the Royal Infirmary for the best reports of medical and surgical cases, for the exhibition of specimens, and other kindred objects. The debating prizes are awarded by ballot. At the meeting held on Feb. 19th an interesting paper on Physiognomy was read by Mr. Ould. The debate was well sustained, Mr. Ewart opening the discussion. Other subjects treated at previous meetings included papers on Examinations, Socialism, the Armenian Question, Pauper Immigration, Hypnotism, and Golf and other Sports. The next and last meeting of the session will take place on March 5th, when Professor Harvey Gibson will give a prize for the best paper on one of the following subjects: (1) Hypnotism; (2) the Coagulation of Blood; (3) Antitoxin; and (4) the Position of Biology in Medical Education.

Liverpool Medical Institution.

This society, which is in a flourishing condition with 280 members and associates, besides eight honorary members, has decided on purchasing a number of microscopes for use at its microscopical and pathological section, which on former occasions have been borrowed from members of the society, notably from Professor Boyce of University College. During the past year a heavy expenditure has been incurred in putting the roof in thorough repair. The theatre has also been painted and redecorated, and its ventilation has been improved, thereby affording additional comfort. Other improvements are also in contemplation. The number of books in the library now exceeds 10,000 volumes. Mr. Chauncy Puzey, on his retiring from the presidency, presented the society with a handsome aneroid barometer.

Liverpool Royal Infirmary.

The selection committee of this hospital met on the 27th ult. for the purpose of electing an additional honorary assistant physician. The choice of the committee fell on Dr. John Hill Abram. Dr. Abram has filled important posts in connexion with the Royal Infirmary. He has been its pathologist for five years and has also held the appointments of house physician and medical tutor and registrar. He is assistant to the Professor of Pathology in University College, Liverpool, and assistant physician to the Stanley Hospital. The qualifications of the other candidates were also of a high order.

St. Paul's Eye and Ear Hospital.

This hospital, which held its annual meeting on the 18th ult., under the presidency of the Lord Mayor, had the misfortune of being partially destroyed by fire on the 25th ult., a week later. Sad to relate, Miss Helsby, one of the nurses, seeing the flames bursting around her and thinking there was no other means of exit, opened one of the windows and jumped into the street, sustaining a fracture of one limb and also injuries to the spine. A patient's foot was also badly burnt. At the time of the outbreak of the fire there were twenty-two patients in the hospital, besides nurses and other employées, who all fortunately escaped with the above exceptions. The treasurer has issued an appeal to the public for funds to enable the committee to reconstruct the hospital on more modern principles.

Bootle Borough Hospital.

The annual meeting of the subscribers was held on the 26th ult., under the presidency of the Mayor of Bootle. The treasurer in his report regretted that the subscriptions and donations were insufficient for the current demands. Mr. W. P. Hartley had given £500 for the endowment of a bed, which was a matter for gratitude under the present adverse circumstances.

Additional Infectious Hospitals.

The hospitals' committee of the Liverpool City Council having decided to increase the number of infectious hospitals, owing to the extension of the city boundaries, have recommended the appointment of Dr. R. S. Archer as visiting physician to that at Walton and of Dr. Richardson to West Derby. The former has had a wide experience in infectious diseases, having formerly been resident at the Netherfield-road infectious hospital. Dr. Richardson has held the post of medical officer of health for the West Derby district for some years and also is physician to the Stanley Hospital. The salaries are respectively £50 and £80 per annum.

Coroner's Inquests.

In the head constable's report just issued it appears that the number of inquests held during the year 1895 was 1032, of which 262 related to children under one year (chiefly cases of suffocation).

March 3rd.

WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Sad Death of Mr. Richard Carter Revell, M.R.C.S. Eng., L.S.A., Mayor of Saltash, Cornwall.

ON March 2nd an inquest was held at Saltash upon the body of Mr. R. C. Revell, M.R.C.S., L.S.A., the mayor of the borough, who was found dead in his bed on Sunday, March 1st. The man-servant, in giving evidence, stated that he slept with the deceased on Saturday evening, and being unable to wake him in the morning sent off for Mr. Revell's partner, Dr. R. T. Meadows. This gentleman stated that Mr. Revell suffered from epilepsy and was in the habit of taking bromide of potash. He had also taken opium for years. Other evidence showed that the deceased had been in the consulting-room in the early morning for the purpose of getting a sleeping draught. On a previous occasion he had been in a state of collapse from taking drugs. The jury returned a verdict of "Death by an overdose of morphia through misadventure." The announcement of the death has cast a gloom over Saltash, where the deceased was held in great esteem. Mr. Revell was educated at Middlesex Hospital and took the qualification of M.R.C.S. Eng., in 1878 and L.S.A. in 1877. He was re-elected Mayor of Saltash last November, having filled the same office the previous year, and was also county councillor for the Saltash district. Deceased was major in the local volunteers and surgeon to several friendly societies. He will be especially missed by the poor of the neighbourhood, amongst whom he was most popular.

Increase of Lunacy in Gloucestershire.

The chairman of the Barton Regis (Bristol) Board of Guardians stated at the last meeting of the board on Feb. 28th that on Jan. 1st, 1896, the Union had 456 pauper inmates of asylums in Bristol and Gloucestershire, being an increase of 50 per cent. during the past ten years, the cost of these being £12,000, as against £8000 ten years ago. In addition to these there were 175 under detention in the workhouse and 54 in charge of their relatives receiving outdoor relief.

Death of Dr. Richard Budd, J.P., F.R.C.P. Lond., of Barnstaple.

Dr. R. Budd died after a short illness at Barnstaple on Feb. 26th. Dr. Budd graduated M.D. of Edinburgh in 1831, and took the M.R.C.P. of London in 1859, being admitted to the F.R.C.P. in 1863. He was a magistrate and consulting physician to the North Devonshire Infirmary. Dr. Budd of Barnstaple was the last surviver of nine brothers, seven of whom graduated in medicine, and two of whom attained the highest reputation, Dr. William Budd of Clifton and Dr. George Budd, late Professor of Medicine at King's College, London.

A Female Vaccination Officer at Cheltenham.

The daughter, aged twenty-eight years, of one of the relieving officers of the Cheltenham Union on Feb. 27th received the appointment of vaccination officer, on an amendment against the recommendation of the medical officer to

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appoint a gentleman. The office has been vacant for some months, and has only now been filled under pressure from the Local Government Board.

The University of Wales.

A meeting of the Court of the University of Wales took place on Feb. 28th, under the presidency of Dr. Isambard Owen, the Senior Deputy Chancellor. Aberystwith was finally selected as the *locale* for the installation of H.R.H. the Prince of Wales as Chancellor of the University. The Prince has not yet selected the date of the ceremony, but it is understood that it will be in May. Much satisfaction was expressed at the meeting when it was stated that the Prince of Wales had given his support to the petition formulated by the Senior Deputy Chancellor asking that a sum of £4500 might be granted to the University from Her Majesty's Treasury. Dr. Isambard Owen announced that he anticipated a favourable reply.

Unqualified Practitioners in South Wales.

An inquest was held on Feb. 19th by the coroner for West Carmarthen on a lad aged eight years, of Llanigwad, who had been prescribed for by Philip Reed, a farmer, who is also the proprietor of four patent medicines. Evidence showed that Reed had been visited by the grandfather of the child, who had obtained some pills and medicine from him. It appeared that only half of a pill had been taken. Mr. Harries stated that the child died from pyæmia consequent upon disease of the knee-joint, and he did not think that the half of the pill could have done any harm or any good. Mr. E. R. Williams gave similar evidence. The coroner, in summing up, strongly deprecated the practice of medicine by unqualified men, and referred to two other inquests he had held upon the bodies of persons who had been prescribed for by such men. In this particular case, he added, the cause of death had been explained to the satisfaction of all, but that fact did not in any way justify the very risky practice of taking the prescriptions of unqualified men. The jury found a verdict in accordance with the medical evidence. Unqualified practitioners seem to be popular in this part of Wales, as the room where the inquiry was held was crowded with people, a great number of whom freely expressed their entire confidence in the farmer and his medicines.

Appointments at the Bristol General Hospital.

A meeting of the election committee of the Bristol General Hospital was held on Feb. 26th under the presidency of Mr. J. S. Fry. Mr. W. J. Penny, F.R.C.S., who for ten years has filled the office of surgeon, having resigned owing to ill-health, was unanimously elected honorary consulting surgeon. The chairman expressed his deep regret that it had been necessary for Mr. Penny to give up the appointment of surgeon to the hospital after his valuable services to the institution for so many years. Mr. R. G. P. Lansdown, M.D. Durh., M.R.C.S. Eng., who has held the post of assistant surgeon since April, 1893, was elected surgeon, and Mr. J. Lacy Firth, M.D., M.S. Lond., F.R.C.S. Eng., assistant surgeon.

Fresh Appointments at the Bristol Hospital for Women and Children.

The committee of the Bristol Hospital for Women and Children having decided to appoint medical officers in charge of the out-patient department, at a recent meeting the following gentlemen were elected to fill these new offices:—As out-patient physicians: Mr. T. Fisher, M.D. Lond., and Mr. E. C. Williams, B.A., M.B., B.C. Cantab.; and as out-patient surgeons: Mr. Charles Morton, F.R.C.S. Eng., and Mr. George Kendall, M.R.C.S.

Appointments at University College, Bristol.

The council of University College, Bristol, at their meeting on Feb. 26th made the following appointments: Professor of Pathology and Morbid Anatomy, Mr. J. Michell Clarke, M.D. Cantab., M.R.C.P. Lond.; Lecturer on Practical Midwifery, Mr. Walter C. Swayne, M.D. Lond.; and Lecturer on Practical Physiology and Histology, Mr. F. H. Edgeworth, M.B. Cantab., B.Sc. Lond.

The Water-supply of Yeovil.

In consequence of the present reservoir for the supply of water in Yeovil having been found inadequate it has been decided to purchase land for the construction of a second reservoir, which will afford storage accommodation for about a million gallons. The springs which will supply this are situated in the chalk hills at Evershot, Dorset, about ten miles from the town. The town council has decided to borrow money for the purpose.

March 4th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Death of Dr. Robert Lawson, Edinburgh.

THE Board of Lunacy in Scotland has lost a valuable servant by the death of Dr. Robert Lawson, Deputy Commissioner. Dr. Lawson was a graduate of Edinburgh, having taken his M.B. in 1871 and his M.D. in 1888 He acted as assistant to the Professor of Practice of Physic after graduation; he then became assistant medical officer of the West Riding Asylum, and afterwards medical superintendent of Wonford House, Devonshire. In 1878 he was appointed a Deputy Commissioner in Lunacy for Scotland, a post which he continued to hold up to his death. Much of his work consisted in visiting lunatics in private houses in the most remote parts of the mainland and islands, and in making official reports on them to the General Board of Lunacy. The *Scotsman* in its notice of him says he was of a most kindly and generous nature, humorous, and possessing extensive literary interests and sympathies. As he had been in indifferent health for months his death was not altogether unexpected. He was married but had no family.

The Lord Rectorship of Edinburgh University.

Lord Balfour of Burleigh has accepted the invitation of the Conservative Association of the Edinburgh University to become their candidate for the Lord Rectorship. Lord Balfour is Scottish Secretary.

Weather and Mortality in Edinburgh.

At the Edinburgh Royal Society, on Monday last, Mr. R. C. Mossman read an interesting paper on the Seasonal Death-rate from Certain Diseases in Edinburgh during the Period 1878–94, with remarks on the Relation between Weather and Mortality. The data for the paper were taken from the weekly returns of the Registrar-General for Scotland along with the observations taken at the Edinburgh stations of the Scottish Meteorological Society. The primary object of the paper was to show the manner in which the mortality from diseases varied during the year. The maximum death-rate occurred from about the middle of November to the end of January, and the minimum from the beginning of July to the end of September. The death-rate fell rapidly during the four weeks ending with the middle of February, after which there was no marked improvement until the end of May. Scarlet fever, croup, laryngitis, diphtheria and typhoid fever reached their maximum in November and prevailed with more or less virulence from September to February, the lowest death-rate from these causes being in July. Measles gave an irregular curve—the end of December, the middle of February, and the end of March all showing a high death-rate. Measles was at a minimum in August. Whooping-cough reached its maximum in the first week in May, and its lowest in the first week in November. The death-rate from diarrhœa rose with great rapidity after June, being highest at the beginning of September. Deaths from diseases of the respiratory organs attained their maximum at the beginning of December after a period of humid, raw, and changeable weather. An intimate relationship was established between the mortality from bronchitis, pneumonia, and pleurisy and the variability of temperature. When equable weather prevailed, even though accompanied by severe cold, the death-rate from respiratory complaints was comparatively low, but rapid alternations of heat and cold exercised a prejudicial influence proportional to the variability of temperature. Infantile mortality had its primary maximum from November to January, the deaths then being principally due to bronchial and zymotic affections. Diarrhœa caused a marked rise in infantile mortality during August. Persons of sixty years and upwards were particularly affected by respiratory complaints, the maximum fatality being from November to January. A comparison of seasonal death-rate from five zymotic diseases showed that the maximum fatality occurred earlier in London than in Edinburgh by from two to nine weeks. The minimum death-rate from whooping-cough, scarlet fever, and typhoid fever took place ten weeks earlier

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in London, but measles and diarrhœa were both a month later in falling to their lowest fatality.

Medical Officer to the Glasgow Police.

It has been decided to advertise this vacancy and to offer an annual salary of £350 with £50 additional for travelling expenses. The salary previously paid was £450, a horse and brougham being supplied. Dr. MacGill, who has recently retired, is to receive a retiring allowance of £300 per annum in recognition of his long service.

Scottish Universities' Commission.

The sum for the expenses of this Commission, included in the Civil Service Estimates for 1896–97, is £510 and is only for three months, which seems to indicate that the work of the commission is drawing to a close. On the expiry of the Commission the power to consider and issue new ordinances for the institution of new chairs, &c., will pass to the University Courts, but until the commission is dissolved this power is enjoyed by that body alone. The unfortunate dispute between St. Andrews and Dundee may cause some delay, but were this happily settled—and unfortunately the prospects of settlement are not very bright—the various universities would be able to address themselves more freely to the completion of the details of such schemes as the commissioners have left to their discretion. It is understood that negotiations are already proceeding between the different universities with regard to the amount and nature of the practical work which shall be expected from the student in the various special subjects, and also in reference to the nature of the "clinical examination" to be demanded in future from candidates for the higher medical degrees—viz., M.D. and Ch.M. This last point is of importance to those who took the degrees of M.B. and C.M. under the old regulations, and who have been prevented from proceeding to the higher degree in consequence of having failed to take Greek as one of the subjects in the preliminary examination. These gentlemen will no longer be compelled to pass in Greek, as they now have the option of graduating under the new regulations which, however, demand in addition to an original thesis an examination in clinical medicine or clinical surgery according as the degree of M.D. or Ch.M. is desired. The examination will include such "special departments" as the senators may determine, and the regulations governing this aspect of the examination have not yet been framed. It is to be hoped there will be no unnecessary delay in issuing them.

Faculty of Physicians and Surgeons, Glasgow.

The following gentlemen have passed the necessary examinations, and their names having been submitted to a ballot, have been elected Fellows of the Faculty:—E. H. Lawrence Oliphant, M.D.; James Hamilton, M.B.

The Mather Collection of Pictures.

The first portion of the collection of pictures formed by the late Dr. Mather of Glasgow was sold by auction on the 25th ult. The total amount realised was £7500. The highest price obtained was for a seascape, "Oban Bay," by Sam Bough, which was knocked down for 400 guineas. A portrait of Dr. Cleghorn by Sir Henry Raeburn was sold for 165 guineas.

Melrose Asylum.

The District Asylum at Melrose has for some time past been inadequate to meet the requirements of the county, and it has been decided to erect an additional wing at a cost of £10,000.

Glasgow Obstetrical Society.

Sir John Williams, as the honorary president of the society, gave an address to the Fellows at a meeting on the 27th ult., his subject being a Historical Sketch of Gynæcology during the last Fifty Years. A large number of practitioners from the city and neighbourhood were present, and the vote of thanks to Sir John Williams in recognition of his address was moved by Professor Gairdner. In the evening the Fellows of the Obstetrical Society entertained the honorary president at dinner, and the toast of his health, which was proposed by the President, Dr. G. A. Turner, was cordially accepted.

Bequests to Glasgow Infirmaries.

By the will of the late Mr. Peter Porter of Glasgow a sum of £4000 is bequeathed to the Western Infirmary, £2000 to the Royal Infirmary, and £1000 to the Victoria Infirmary.

Paisley Convalescent Home.

The annual general meeting of the subscribers to the Home at West Kilbride was held at Paisley on the 26th inst. The report stated that 967 patients were admitted to the Home in 1895, and of these 880 left in such a condition of health that they were able to resume their usual employment. The directors, with a view to the extension of the buildings, have purchased a piece of ground adjoining the institution. The financial statement showed a balance of £307 2*s.* 2*d.* in favour of the Home.

March 3rd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Irish Medical Men and the Army Examinations.

ATTENTION was called in the pages of THE LANCET some weeks ago to the falling off in the number of candidates from Ireland for the examinations of the Navy and Army Boards and to the complete disappearance of the special medical classes in which a number of young qualified men were prepared for these examinations each year in Dublin. In reply to a question in the House of Commons last week Mr. Brodrick stated that "the causes of this diminution, especially in the number of Irish candidates, are engaging the serious attention of the Secretary of State," and furthermore that "he hoped to be in a position to make a statement upon the subject in introducing the Army Estimates."

Election of a Direct Representative on the General Medical Council: the Feeling in Belfast.

The result of the election for direct representative on the General Medical Council has terminated as follows: Mr. Thomson, 866; Dr. Cuming, 757; and Dr. Jacob, 456. It will be thus seen that there was a large poll, and that, owing to the three-cornered fight, Mr. Thomson, who is elected, had 173 less votes than one-half of the total number recorded. As a result all the Irish members of the General Medical Council are Dublin men, and the provinces are without representation or influence on that body, a condition of matters contrasting very remarkably with what holds in Scotland and England. There can be no doubt that in the provinces the result of the election is disappointing, and especially so in Munster and Ulster, where the profession strongly supported Dr. Cuming as the selected provincial candidate. However, his defeat was due to a mode of conducting an election which, it is hoped, for the honour of the medical profession, will never occur again—that is, canvassing and pledging voters before the position was vacant; nay, more, before the late distinguished direct representative was even dead. Public attention was drawn to this circumstance by Dr. L. Kidd in a letter to one of the medical journals (Dec. 21st, 1895), in which he said he approached the subject with great reluctance "as the present representative for Ireland is a near and beloved relative of my own and is very ill, so ill that two metropolitan consultants have already put themselves forward as candidates for the position still held by Dr. Kidd in the General Medical Council." There is a strong feeling among thoughtful men who look ahead that, considering the present relationship between the medical profession in the provinces and in Dublin, Mr. Thomson would have acted more judiciously had he retired in favour of Dr. Cuming, a man of such acknowledged position and ability, and who is his senior. The profession in Belfast do not forget that when Mr. Thomson came forward as a candidate for the senatorship in the Royal University they supported him, and they think that, considering the monopoly of representation Dublin enjoys in the General Medical Council, he might have waited his time and retired in favour of one who is his senior. Now that Mr. Thomson is elected it is expected that he will, as soon as possible, get the General Medical Council to improve the position of the Poor-law medical officers.

Newry Fever Hospital.

At the annual meeting in connexion with this hospital, held on Feb. 28th, it was reported that for 1895 1291 patients were treated at the hospital, and of these 210 were intern cases and the remainder out-patients. Financially, there is a balance of £103 1*s.* 4*d.* towards next year's expenses. The working men of Newry have subscribed £40.

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Larne Water-supply.

An inquiry was held at Larne on Feb. 28th with reference to the petition of the Larne Town Commissioners for powers to take lands for the construction of a storage reservoir, and praying that they might be allowed to abandon the rights and powers conferred upon them by the Larne Waterworks Provisional Order, 1894, whereby they were empowered to take certain lands and springs in Cairncastle. The present scheme is for a storage reservoir at a sufficient height to command the whole of the area within the township. The proposed reservoir will contain between nine and ten million gallons, so that it will not be at all necessary to deprive any person of water, as it is intended to use simply the overplus from the present supply. Mr. Cotton, chief engineer to the Local Government Board, who conducted the inquiry, will forward the evidence to the Local Government Board.

Cottage Hospital, Cushendall.

The new building for the Cushendall Cottage Hospital is now finished, the first patients being admitted in the month of February. The situation near the sea is airy and sunny. Formerly there was a hospital in a house in the village.

Downpatrick Asylum.

At a meeting of the governors held on Feb. 28th Mr. Nolan (superintendent) and Mr. Cowan, C.E. (the architect), brought before those present their views on the heating and ventilation of the asylum, with the view of adopting the most suitable and economical plan. The "Plenum" system of heating was the one recommended to be adopted, but it was arranged, before coming to a final decision, to get the architect, Mr. Cowan, C.E., to furnish an estimate of the "Plenum" and steam systems of heating and to supply an estimate of the cost of the maintenance of each system afterwards.

Health of Belfast.

From the report of the medical superintendent officer of health it seems that the epidemic of scarlet fever still continues with more or less virulence in every part of the city. The cases, however, are mild and there is not much mortality. There is a marked decrease in the number of cases of typhoid fever, and the deaths are very much less than they have been for many months past.

The Purdysburn Asylum.

At a meeting of the city corporation held on March 2nd the report was passed that additional accommodation, comprising administrative and two chronic blocks, should now be provided at Purdysburn for 300 chronic patients as part of a complete asylum. The representatives of the city council believe that such buildings can be erected at a cost from £50,000 to £60,000. This will give ample accommodation for years to come, and will, in the event of being decided hereafter to erect a complete asylum at Purdysburn, form a portion thereof.

The Battle of the Clubs at Cork.

Last week the *Cork Constitution* published a long paragraph in which it was asserted that the local profession had taken steps to prevent trained nurses from attending club patients under the care of the imported medical men. It was stated that a representative of the *Constitution* had interviewed the lady superintendent of one of the nursing homes and had been informed by her that the local medical men had told her that if she continued to lend nurses to cases under the care of the new club practitioners the local practitioners would not have her nurses for any of their patients. Apparently either the reporter misunderstood what had been said to him or the lady interviewed was in a semi-hypnotised condition, for the very next day, in conversation with the mayor, she contradicted the previous statement in almost every essential particular, and admitted that, as a matter of fact, not a single medical man had spoken to her on the subject, and that it was only "rumours and hints" had reached her indirectly. His worship very properly reminded her that it is not always wise to act on rumours and hints. In spite of that the *Constitution* continued to give paragraphs on the subject. The headings were in leaded type, and such expressions as "vile conspiracy" and "degradation of the medical profession" became stock phrases, though the chairman and the honorary secretary of the medical association on being interviewed stated emphatically that the association had not taken any step of the kind indicated. A meeting of the association was held some days afterwards, and a resolution was passed to the effect that no notice should be taken of the libellous and unfounded charge, and it was added that it was quite in keeping with the charges previously made that club patients had been boycotted at the hospitals. Somebody signing himself "Non-Medicus" has written to the newspapers very sensibly and pithily on the subject. He points out that it is quite evident there are many people in the Cork clubs who are well able to pay ordinary medical fees, and he emphasises the fact that an individual who can retain the services of two trained nurses at a fee of £2 2*s.* each per week ought to be able to pay a medical man something more than 10*s.* or 15*s.* for a whole year's attendance; and "Non-Medicus" thinks it was nearly time for the medical men to set about rectifying that state of affairs. Many are now looking at the matter in the same light as "Non-Medicus," and the clubs find they have lost more than they have gained by what was clearly an attempt to sow disunion in the ranks of the medical men. Even the *Constitution* thinks so, for in a leading article it expresses an opinion that the sooner the incident is forgotten the better.

March 4th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Petrolism.

In petroleum refineries stringent rules are in force in order to minimise the chances of explosion and fire. With this object manipulations are conducted as much as possible without exposing the petroleum to the air. Toxic symptoms due to the breathing of the vapour are consequently not common. When, however, any laxity in the application of these regulations is allowed, a certain form of symptoms is observed which were described by M. Mabille on Feb. 26th at the Société de Médecine Publique et d'Hygiène Professionnelle, the subject being a workman employed in unloading a petroleum boat anchored at La Palice. The early symptoms recall those of acute alcoholism—cerebral excitement and exuberance of language followed by complete amnesia and prostration. It would appear that there is also a chronic form of petrolism observed especially amongst the miners of the Caucasus and characterised by progressive and long-continued anæmia.

Experimental Rickets.

M. Charrin and M. Gley have for some time past been engaged in experiments calculated to throw some light on the effects on the progeny of animals themselves (the parents) under the influence of different toxines (tuberculin, pyocyanin, &c.). A certain number of the offspring are remarkable for their smallness, the hypertrophy of the extremities of the long bones, and the exaggerated curves of the limbs. In a rabbit shown by them at the Société de Biologie on Feb. 22nd, the parents of which had been infected with diphtheritic and pyocyanic toxines, it was easy to recognise all the symptoms and signs of rickets. The tibial and femoral epiphyses were enormous, all the diaphyses were incurved, particularly those of the fore limb, the thorax was deformed, the ribs presented abnormal angles, recalling the beaded appearance seen in the human being, the belly was large and there was intermittent diarrhœa, the coat was rough, the urine was albuminous, and the body weight (at three months) attained to only 985 grammes, whereas a rabbit from the same litter and reared in the same cage weighed 1810 grammes. In twelve rabbits born of parents subjected to the influence of the above-mentioned toxines the same appearances were in a more or less pronounced degree, discernible. The experimenters remark that it would be difficult to reproduce more faithfully in the laboratory the morbid type observed so commonly in children's hospitals. It would thus seem that the presence of pathogenic bacteria in the blood of animals at the moment of conception influences very strongly the nutrition of their young. We can thus understand the existence of "spoilt" progeny in the case of syphilitic parents through the action of the syphilitic virus.

Treatment of Certain Obstinate Headaches.

M. Galliard[1] calls attention to a form of headache which is distinguished from migraine and syphilitic cephalalgia by its continuity, absence of nausea and vertigo,

[1] Académie de Médecine, Feb. 25th.

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and its cessation at night. It is generally limited to the forehead, rarely to the vertex, occiput, or temples. It generally survives any coincident disorder of the primæ viæ that may exist, and is distinct from the persistent headache of neurasthenia, which, however, it resembles in its resistance to ordinary remedies. M. Galliard claims to have successfully treated a certain number of these cases by the exhibition at early morning before breakfast of 10 centigrammes of calomel for six consecutive days. On the third or fourth day diarrhœa sets in with some colicky pains. The gums are carefully watched. The headache generally disappears, but should it persist a similar six days course is resumed after the lapse of a few weeks.

Gynæcology at the Academy of Medicine.

Dr. Pozzi, the well-known gynæcologist, has just been elected a member of the Academy of Medicine. The new academician has rendered yeoman service in his speciality, which, strange to say, is not officially recognised by this Faculty, being merged in general surgery. It is certainly surprising that in the entire programme of lectures delivered at the Faculty no mention is made of the diseases of women. And this with a formidable body of 5000 students to teach! By the foundation of the Hôpital Pascal and his teachings during the last twenty years Dr. Pozzi has rendered incalculable service to the cause of medical education in Paris. When the authorities rouse themselves from their torpor we shall doubtless see Dr. Pozzi appointed to the new chair of gynæcology.

March 3rd.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of Uterine Carcinoma.

IN the course of a discussion on the treatment of uterine carcinoma at a meeting of the Budapest Medical Society, Dr. Bäcker pointed out that among 11,095 female patients who had been under his care 705 suffered from this disease, these cases being 6·35 per cent. of the total. There is no causal relation between it and delivery, for in 85 per cent. of the cases three years intervened between delivery and the outbreak of the disease. Moreover, a carcinomatous uterus shows symptoms of endometritis and the disease is developed in those situations where endometritis commonly occurs. He, therefore, agreed with the opinion of those writers who hold that endometritis predisposes to uterine carcinoma and advocate a radical treatment of the former condition. Extirpation is to be resorted to as soon as the diagnosis is clear. Supra-vaginal amputation, which has been proposed for carcinoma of the vaginal portion, is unsatisfactory because the end of the stump becomes strictured and there may also remain some carcinomatous particles after the operation. Extirpation by the sacral method is to be performed only in those cases where the cervix is already so much thinned that it breaks down in the course of vaginal extirpation. Vaginal extirpation has been performed in 70 cases with a death-rate of 11·6 per cent., and in 33 per cent. there was no relapse during three years. Professor Tauffer said that the relation between endometritis and uterine carcinoma had by no means been proved; he recommended Péan-Segond's method. Professor Elischer believed that his histological investigations showed endometritis to be a secondary process. He removed tumours the size of a child's head per vaginam, but only in the case of a freely movable uterus. In three cases of radical operation he had obtained gratifying results, one patient having already passed twelve years without a relapse.

"Thyreoiodin."

Dr. Toepfer has published some experiments on "thyreoiodin," a substance isolated some weeks ago by Professor Baumann, who has made the important discovery that iodine is a normal constituent of the thyroid gland in the sheep. "Thyreoiodin" contains 9·3 per cent. of iodine, and is prepared by boiling the gland with 10 per cent. of sulphuric acid and extracting with alcohol. It possesses not only the same physiological effect as thyroid extract, but also as the whole gland, and it becomes inert when the iodine is removed from it. In 30 grammes of sheep's thyroid gland there was 0·009 gramme of iodine.

Prague General Hospital.

According to published statements by Dr. Grossmann overcrowding prevails to a shocking extent in the Prague General Hospital, which at present contains 1418 patients, although there are only 1186 beds, 82 of which are reserved for infectious diseases. The number of annual admissions has increased from 9871 in the year 1870 to 13,169 in 1885 and to 18,195 in 1895. Patients sometimes have to lie on the floor in rooms without means of ventilation, the heating arrangements are inadequate, and the beds are swarming with vermin. Eight persons sleep in rooms which are barely large enough for four, the work of the nurses is inefficiently performed, and the poorer class of patients suffer under the prevalent system of gratuities to officials. The medical staff attend gratuitously for three years; they are then appointed at a permanent salary of £35, and have to be on duty for twenty-four hours every third day. The University of Prague, which was founded in 1348, numbers among its professors some of the foremost teachers in Austria, and it is surprising that such abuses should have existed so long in a hospital where the medical staff stand high in professional and general estimation. The Government have instructed Herr Wolf, a sanitary expert, to take measures for the mitigation of the present intolerable state of affairs.

Acetonuria and Mental Disorder.

Professor Wagner, Dean of the Vienna School of Medicine, in the course of a paper on Gastro-intestinal Derangement and Mental Disorder read at a meeting of the Medical Society, said that acute disease of the brain is not uncommon as a sequel of febrile illnesses, and that a similar relationship exists between infectious diseases and polyneuritis, for polyneuritis may be caused not only by toxic agents, such as alcohol or lead, but by specific infectious diseases, such as enteric fever or pneumonia, and by impairment of the gastric functions. On the supposition, however, that infectious diseases are not due directly to the specific micro-organisms but to the toxines elaborated by them, all these causes may be regarded as toxic in their nature. There are also forms of mental disorder due to the results of perverted gastro-intestinal action, the most remarkable of these being acetonuria, which was first described by von Jaksch. Acetone, no doubt, originates in abnormalities of the gastro-intestinal function, and acetonuria is a result of perverted metabolism, which may lead to the formation of toxines capable of producing serious mental disturbance, amentia being the most usual symptom. In these cases Professor Wagner has tried iodoform in daily doses of one gramme divided into ten parts, each of which, therefore, contains about two grains. Acetonuria is, in his opinion, due either to micro-organisms or to fermentative processes in the intestine, and as the mental condition of the patients improves concurrently with the disappearance of the acetonuria he suggested that disinfection of the gastro-intestinal tract would probably be useful in these cases.

March 1st.

PHILADELPHIA.

(FROM OUR OWN CORRESPONDENT.)

Report of the Board of Health.

THE report of the board of health for the year 1895 shows the health of this city to have been unusually good during the year. Based on a population of 1,163,864, the mortality was 18·79 per 1000, less than any year for fifteen years except 1888, 1889, and 1894. Several factors contributed to this result—viz., the introduction of impervious and Belgium block paving, the abolishment of cesspools, a more vigorous enforcement of the Notification Act and house-to-house inspection, supplemented by police surveillance of infected houses. Among children under five years of age there were 8401 deaths, which is 35·30 per cent. of the total mortality. There were 30,354 births. An interesting fact is noted in the report of the city bacteriologist, Dr. D. Meade Bolton, and that is, that peroxide of hydrogen seems to prolong the duration of diphtheria. In 80 cases in the Municipal Hospital, in which peroxide was used locally, the average duration of the cases was 35·9 days, while of those cases in the same institution in which no peroxide was employed the average duration was only 32·3 days. Thirty-two cases occurring in private practice and treated with the same drug had an average duration of 25·8 days, and cases not so treated 23·6 days. In 10 cases where bichloride of mercury was used the average duration was 19·9 days. Dr. Welch, of the Municipal

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Hospital, reports 302 cases of diphtheria treated with antitoxin with a mortality of 28·14 per cent., while among those not receiving the antitoxin the mortality was 25·99 per cent. In the former group the injection was not made until the fourth or fifth day, and very often later in the course of the disease. This renders the report of little comparative value therefore.

The Unemployed.

The question, What shall be done with the poor? is a serious one indeed. Presidential year is usually depressing to business, an undercurrent of distrust and uneasiness generally prevailing. This, coupled with the financial depression of the past two years, has served to swell the army of the unemployed. Mayor Pingree of Detroit some time ago proposed that the poor should be permitted to raise potatoes on vacant city property. The idea was favourably received and successfully put in operation in Detroit and later in New York, as the following report, issued by the Detroit committee and endorsed by that of New York testifies: "The experiment has clearly demonstrated that many of the destitute are ready and willing to work; that a large number of these people can be supported by utilising vacant land in the outskirts of the city; that trespassing even upon unfenced lands is not a serious difficulty; that a small space of ground is sufficient to raise enough vegetables to support a family through the winter; that a majority of the citizens who own the vacant land would rather allow it to be cultivated by the poor than pay a large tax for their support; that the needy are thereby assisted without creating the demoralisation in the habits of the people that gratuitous aid entails; and that much relief and real help may by this plan be afforded with small expense by charitable persons to taxpayers." The plan has proved so eminently successful that I think it is probably safe to predict it will be in operation in many cities before long.

The William Pepper Laboratory of Clinical Medicine.

The above laboratory recently presented to the University of Pennsylvania by Dr. Pepper in memory of his father, the late Dr. William Pepper, is a substantial four-storey building, containing chemical and bacteriological laboratories, rooms for the pursuit of anthropometrical studies and the study of blood pressure, respiration, &c. It offers exceptional facilities for original investigation, post-graduates only being accorded the privileges of the institution.

Feb. 16th.

Obituary.

THOMAS WILLIAM THOMPSON, M.R.C.S. ENG., L.R.C.P. EDIN., D.P.H.,

MEDICAL INSPECTOR OF THE LOCAL GOVERNMENT BOARD.

By the early and sudden death of Mr. T. W. Thompson the Medical Department of the Local Government Board has sustained a very severe loss. Mr. Thompson was endowed with intellectual attributes of no mean order; his mental processes were of a highly philosophical and deeply reflective type, while his modest, sympathetic nature and courteous manner lent to his handsome, soldierly presence peculiar charm. To paint a faithful picture of a nature such as his is no easy task. Mr. Thompson received his professional education at University College Hospital, London, and after holding residential appointments at other hospitals he joined the Army Medical Department and proceeded to the Madras Presidency, where he served with the Royal Horse Artillery. His sojourn in India was, however, but of short duration, as a severe attack of enteric fever, from which he barely escaped with his life, rendered his return to England a necessity. On his recovery he was successful in obtaining the post of surgeon to the 1st Life Guards, which he held for some six years, at the end of which time he resigned his position in the army and, marrying, entered private practice. During these years Mr. Thompson kept up his medical and scientific reading, while his love of the more speculative philosophy had already commenced to manifest itself.

Although in private practice Mr. Thompson was eminently successful, not a few of the social duties entailed upon him by it were somewhat alien to his mental habit; and, longing for work of a more definitely scientific character, he took the Diploma of Public Health and obtained the medical officership to the Herts and Middlesex combined sanitary districts. It was very shortly after entering the public health service that Mr. Thompson's great ability, administrative and scientific, began more especially to manifest itself, and it was not long before the Local Government Board recognised in him an epidemiologist of no common type, while a paper upon a scientific subject which he had contributed to THE LANCET[1] showed that he excelled in clearness of exposition and method of treatment. In the winter of 1890 the lamented death of Dr. David Page of the Local Government Board created a vacancy in the department, and the Board were fortunate enough to obtain in the spring of the same year the services of Mr. Thompson.

Of his work under the Local Government Board it must suffice here to remark that everything he did and wrote was up to the very highest standard of the medical department, and that there pervaded it all that same scientific and truth-seeking spirit which characterised his life. Probably Mr. Thompson's best known work—apart from his valuable reports to the Local Government Board—was the article he contributed on the "Natural History of Infectious Diseases" to Stevenson and Murphy's Standard Treatise on Hygiene and Public Health. In the introduction to that article Mr. Thompson established a very high reputation. He dealt in the most lucid and facile manner with the problems of infectious disease as viewed from the standpoint of organic evolution, discussing, on the one hand, the *de novo* and immutable stability hypotheses of infectious disease, and on the other the thesis of relative stability. He pointed out how in a certain sense at least there might be in some degree reconciliation between these apparently conflicting doctrines. Perhaps we cannot do better than repeat here what was said in our columns[2] during Mr. Thompson's lifetime of the article to which we are referring: "It is no light tribute to Mr. Thompson's monograph to say that he has succeeded better than any other writer with whose work we are acquainted in the English language in conveying a faithful picture of what is known of the epidemiology of each of the principal diseases of which he treats."

In spite of his high intellectual attainments Mr. Thompson was of the most modest disposition, and it was with great difficulty that he was prevailed upon to read a paper before the Epidemiological Society of London in November last. That paper, Considerations in Respect to "Return" Cases of Scarlet Fever, was much appreciated by those who heard it, and we reproduced it in full in our columns in the following week.[3] The author during certain inquiries into this subject had been impressed with the fact that, although at times these so-called "return" cases may be due to maladministration on the part either of the hospital or of the sanitary authorities, that neither the one nor the other of these occasional causes suffices to explain all the observed facts, and that "there are in all probability some more obscure factors at work, factors perhaps closely bound up with the natural history of scarlet fever." Thus much of Mr. Thompson's professional life.

Of that form of ambition which tempts some to hustle in their search for notoriety even their friends and colleagues, Mr. Thompson was absolutely devoid. His one aim seemed to be to do his work to the utmost of his ability, and to be able if possible to keep in touch with modern science and philosophy. Unfortunately, however, for what he would have termed his intellectual recreation, his official duties were a matter of such conscientious concern to him that his work in this direction occupied almost his whole energies. It was doubtless for this reason that, although when he died he was but forty-four, he was fond of looking forward when his official years were over to retirement into absolute simplicity of life, where, surrounded by his books and, if possible, within reach of those of his friends who might be left to him, he could enjoy to the full his well-earned repose. Death found Mr. Thompson actually engaged in an important sanitary survey in South Wales. His wife, his constant companion in all his pursuits, was with him at the time when he expired after a few hours' illness on Feb. 25th. At his funeral, which took place at North Mimms in Hertfordshire, there were indications from every quarter of the deep respect and affection in which he was held, and amidst the numerous and beautiful wreaths was one inscribed, "A token of the affectionate regard and the deep esteem of his colleagues in the Medical Department of the Local Government Board." In conclusion it can only

[1] THE LANCET, April 25th, 1885.
[2] THE LANCET, March 24th, 1894.
[3] THE LANCET, Nov. 23rd, 1895.

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be said that as his many friends and colleagues stood in the silent and picturesque country churchyard they must have felt, in spite of their regrets, that they were the better and the broader-minded for having known him, and that the spirit of him they mourned had in very truth "joined that choir invisible whose music is the gladness of the world."

DUGALD BLAIR BROWN, L.R.C.P., F.R.C.S. EDIN.,
SURGEON-LIEUTENANT-COLONEL, ARMY MEDICAL STAFF.

WE regret to have to record the death of Surgeon-Lieutenant-Colonel Blair Brown, which occurred on Jan. 27th as the result of an accident. Whilst he was riding from the Section Hospital, Meean Meer, his horse took fright and bolted and he was thrown on his head, sustaining a fracture of the base of the skull, from which he died the same evening without having regained consciousness. The funeral took place in the Royal Artillery Cemetery on the afternoon of Jan. 28th, and was attended by Sir George Wolseley, the general officer commanding the Lahore district, and his staff, together with the officers of the station. The deceased was very popular with officers and men of all ranks, and his melancholy end is deeply regretted.

Surgeon-Lieutenant-Colonel Blair Brown became a Licentiate of the Royal Colleges of Physicians and Surgeons of Edinburgh in 1868 and was admitted to the Fellowship of the latter College in 1876. He was an able and skilful operator and most painstaking in carrying out antiseptic details. He was in his forty-ninth year and was unmarried. He had seen a considerable amount of active service, firstly in the South African War of 1879–81, being present at the battle of Ulundi, which was fought against the Zulus under Cetewayo. For his conduct in this action he was mentioned in despatches (*London Gazette*, Aug. 21st, 1879), and received a medal with clasp. He was also with the Natal Field Force in the Transvaal campaign and performed a number of important operations and resections, gaining for himself the credit of being the first British army surgeon to successfully resect the wrist-joint in the field—a piece of good fortune which fell to his share during this campaign, in the course of which he used boiled water for operations and for dressing wounds. He also served in the Burmese Expedition of 1885–86 and received a medal with clasp.

ARCHIE TILLYER COLLUM, M.B. LOND., F.R.C.S. ENG.

IN our issue of Feb. 22nd we recorded the death of this most promising and able young surgeon at the early age of twenty-eight. He was educated at Epsom College and entered Charing-cross Hospital as Epsom scholar in 1885. He soon made his mark as an exceptionally brilliant student, and was appointed assistant demonstrator of anatomy in his second year of study. He took the qualification of the Conjoint Board in 1890 and obtained the appointments of house surgeon and also house physician to the hospital in the same year. In 1892 he was elected surgical registrar, and in 1894, although only twenty-six years of age, he became assistant surgeon and joint demonstrator of anatomy and surgical tutor after graduating as M.B. Lond. and F.R.C.S. Eng. As a teacher he was sound and practical, and he possessed the gift of being able to impart his knowledge clearly and concisely, so that the dullest could comprehend and the idlest profit. His genial and friendly manner attracted all alike, whilst his scrupulous straightforwardness and fairness, whether in the football field or elsewhere, won him universal respect. He was requested last year to act as treasurer to the students' club, and did so up to the time of his death. Evidence of his popularity amongst students is afforded by a letter suggesting a memorial to him which we publish in another column. Students, both past and present, will deeply and unfeignedly mourn his loss.

His fatal illness was an obscure form of septicæmia, doubtless contracted somehow in the performance of his duties. He struggled manfully against its insidious progress for a fortnight or more, and only gave up work at last when it was obvious to himself, as it had already been to his friends, that he was too ill to continue at his post. He was thus a martyr to his calling, as so many young and rising physicians and surgeons are fated to be. It cannot be doubted that had he lived the bright hopes which those who knew him entertained for him would have been fulfilled, and that his career would have continued to be as honourable and useful as it was during his short life. He was the fifth son of Dr. Collum of Surbiton.

JAMES W. ILOTT, M.R.C.S. ENG., M.S.A.

WE regret to announce the death of Mr. James W. Ilott-M.R.C.S., M.S.A., on Feb. 21st, at his residence, Beech, field, Bromley, Kent, at the age of eighty. He was born in 1815, his father being a member of a firm of practitioners who had carried on practice in Bromley for over a century. Mr. James Ilott studied medicine at St. Bartholomew's Hospital and took the old double qualification in 1837. He then became house surgeon to Sir William Lawrence and a year later joined his father in partnership. He remained in practice for nearly fifty years. He became highly popular in Bromley for his public spirit, which induced him to encourage every local reform and to work on several committees of public institutions, notwithstanding hard professional labour. He will remain known to men of letters and of science for good work in local archæology and geology, in the course of which he collected a library of antiquarian works and a valuable collection of fossils.

ARTHUR NICHOLSON, L.R.C.P. EDIN., L.R.C.S. EDIN., L.F.P.S. GLASG., & L.M.

THE bloodless Ashanti campaign has been responsible for many deaths, and among them we regret to have to record the death of Mr. Arthur Nicholson, late of Bradford and more recently of Haxey, near Rotherham, who succumbed to malarial fever on his way home from the Gold Coast as an invalid to recruit. In July last Mr. Nicholson was appointed resident surgeon at Accra on the Gold Coast, and on the breaking out of hostilities was appointed lieutenant-surgeon with the flanking expedition which approached Kumasi from the north, and during the expedition contracted the fever from which he died. Previously to his colonial appointment he held the post of house surgeon and senior dispensary surgeon at the Bradford Infirmary. He received his medical education at the Royal Infirmary, Glasgow, where he was prizeman in anatomy, practical physiology, and pathology. As a member of the Bradford Medico-Chirurgical Society his death will be much regretted by his fellow practitioners, and his loss will be deeply deplored by his friends, among whom he was held in high esteem.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. P. Hedenius, Professor of General Pathology, Pathological Anatomy, and State Hygiene in the University of Upsala. He was President of the Upsala Medical Society and was the writer of numerous papers on pathology. His best known literary work consisted, however, in his contributions to Hirsch and Gurlt's well-known Dictionary of Medical Men.—Dr. Guido Wagener, Honorary Professor and formerly Prosector in Anatomy in the University of Marburg, to which university he came from Berlin with Lieberkühn in 1867. He was seventy-four years of age.—Dr. Henri Collard, Corresponding Member of the Liége Medical Commission.—Dr. E. Gonne de Posson, a well-known Belgian practitioner who had for many years taken an active part in the various professional struggles which have at various times agitated the profession in Belgium. He was seventy-two years of age, and had been decorated with the Civil Cross and was a Knight of the Order of Leopold.—Dr. Laënnec, Professor of Physiology and Principal of the Medical School of Nantes.—Dr. Zsigmond Purjesz, Lecturer on the History of Medicine in the University of Budapest.—Dr. Ernest Goodman, formerly Professor of Surgery in the Medico-Chirurgical College, Philadelphia.

MEDICAL TRIAL.

KINGSBURY *v.* HART.

IN Manchester last week, before Mr. Justice Kennedy and a special jury, the action "Kingsbury *v.* Hart" was tried. It was brought by Dr. George Kingsbury, a medical man, who had been in practice at Blackpool for several years, against the editor of the *British Medical Journal*, Mr. Ernest Hart, to recover damages for an alleged libel.

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Mr. McCall, Q.C., Mr. C. A. Russell, and Mr. Bradshaw appeared for the plaintiff, and Mr. Bigham, Q.C., and Mr. F. H. Mellor for the defendant. In 1883 the plaintiff commenced his connexion with a hydropathic establishment at Blackpool, where a consultation-room was set apart for him. In the next year he became physician to a similar institution in another part of the town called the "Imperial." From neither of these two institutions did he receive any emolument. In 1895, however, the former establishment passed into different hands, and the new proprietor issued a circular to the medical men of the district inviting tenders from duly qualified doctors for the privilege of daily attendance at the hydropathic establishment, part of the terms being that a room was to be supplied for consultation. There was a further proviso that any inmate of the establishment was to be free to select any medical attendant from outside. The circular was sent to the *British Medical Journal* and there commented upon to the effect that any medical man responding to it would depart from the traditions of the profession. In the result the person who had issued the circular wrote to the paper admitting that it was an improper one and regretted that it had been sent out. In January last a question appeared in the paper from "X. Y. Z.," asking whether it would be regarded as infamous conduct or censurable if he allowed his name to appear on the prospectus of a large hotel as its physician. In reply to the editor stated his opinion to be that such a course would be regarded as covert and unprofessional advertising and would involve severe criticism and rebuke. Later on in January, under the heading "Hotel Physician," appeared an expression of opinion that "the medical man in question has not only disparaged the honourable traditions of the medical faculty, but contravened the well-understood rule of modern practice. Need we add that so reprehensible a departure from professional rule, in face, too, of the protesting dissent of the local practitioners, and in the absence, moreover, of our (self)-solicited opinion, the expression of which was unavoidably delayed for a week, is wholly incompatible with the honour and dignity of the profession, and justly subjects him to medical reprobation." There was no dispute that the plaintiff was the person referred to. The plaintiff stated that at the request of the proprietors he had given his consent to the fixing of a brass plate outside the Imperial, upon which his name and qualifications appeared. His name also appeared upon prospectuses. Dr. Renaud, consulting physician to the Manchester Royal Infirmary, said that he had frequently attended consultations with the plaintiff, and his opinion was that he had not done anything in contravention of the best traditions of the profession or of any rule. Other medical evidence to a similar effect was given. Mr. Bigham said that Mr. Hart had no personal feeling against the plaintiff, and had simply drawn attention to the matter in the *Medical Journal* as one of great interest. Sir Dyce Duckworth stated that, having read the questions, he had no doubt that the circumstances there described amounted to a violation of a well-known rule. He did not object to his own name and qualifications appearing upon the prospectus of an insurance company. Sir William Stokes, President of the Royal College of Surgeons, Ireland, gave evidence to the same effect, as did also Dr. Cousins of Southsea, and Dr. Bateman of London. His lordship having summed up, the jury retired, and ultimately found a verdict for the plaintiff with £150 damages.

In another action by the same plaintiff against John Grime, for having republished the libel in the *Blackpool Gazette and News*, a verdict was taken by consent for the plaintiff with £20 damages. Mr. McCall, Q.C., Mr. C. A. Russell, and Mr. Bradshaw again appeared for the plaintiff; and Mr. Shee, Q.C., and Mr. F. H. Mellor for the defendant.—*The Times*, March 2nd, 1896.

Medical News.

THE ROYAL SOUTH HANTS INFIRMARY.—At the annual meeting of the Royal South Hants Infirmary, Southampton, an amended scheme was put forward by the committee, who had had the matter under consideration during the whole of the year, for the alterations and additions to the buildings. The first estimate, put forward as long ago as December, 1894, had been reduced to £19,000, which is considered to be the minimum consistent with sanitary efficiency. The scheme was approved by the meeting, and £5000 worth of stock is to be sold towards the building fund, further subscriptions to the extent of over £4000 having also been promised. There is a deficit of £470 on last year's working, and this also is to be met by the sale of invested property.

MEMORIAL WINDOWS TO THE LATE MR. JOHNSON OF LANCASTER.—Two beautiful stained glass windows, erected by public subscription, in St. John's Church, Lancaster, were dedicated on Sunday, Feb. 23rd. The windows are situated one on either side of the chancel and represent "The Good Samaritan" and "Healing the Sick at the Gates of the Temple." They are the workmanship of Messrs. Sprigley and Hunt, the well-known ecclesiastical designers. The inscriptions read:—"In Memory of Christopher Johnson, F.R.C.S., Mayor of Lancaster 1857; warden of this church 1881–86, a benefactor of this church; born April 6th, 1816; fell asleep Nov. 6th, 1894." "In Memory of Christopher Johnson, F.R.C.S., J.P., a kindly physician, a patriotic Englishman, and a humble Christian. From youth to old age he lived his life after the sacred words, 'Fear God and honour the King,'" this being the motto of a banner which the deceased carried at local celebrations in honour of the coronation of William IV.

THE Bishop of Rochester has become a Vice-President of the Church Sanitary Association.

THE PRESTON GAOL MEDICAL OFFICER.—Dr. Moore, after over thirty-seven years' service, has resigned the appointment of medical officer to H.M. Prison, Preston. His son, Dr. Walter Francis Moore, who for some time past has acted as his deputy, has been appointed by Her Majesty's Commissioners of Prisons as his successor.

ANNUAL MEETING OF THE BATH EYE INFIRMARY.—The annual meeting of the Bath Eye Infirmary has been held recently, when it was stated that there had been 300 more patients than in 1894. The deficit in the account was £43. Thanks were extended to Mr. W. M. Beaumont, the honorary surgeon, who was voted the usual honorarium of 50 guineas.

HUNTERIAN SOCIETY.—An ordinary meeting of the Hunterian Society was held in the theatre of the London Institution on Wednesday, Feb. 26th, 1896, when Mr. Knowsley Thornton delivered the second Hunterian Lecture on the Lines of Advance in Abdominal Surgery. A vote of thanks to the lecturer was proposed by Mr. Charters Symonds and carried with applause.

PRESENTATION TO MR. CORNELIUS HANBURY, M.R.C.S., L.S.A.—On Saturday afternoon last the employés and friends of Messrs. Allen and Hanburys, of Plough-court, Lombard-street, London, E.C., presented Mr. Hanbury, the head of the firm, with his portrait as a mark of their esteem and respect. The presentation was made at St. Andrew's Institute, Bethnal-green, where an excellent programme of music terminated the proceedings.

THE DIFFUSION OF SMALL-POX.—For the seventh successive week, up to and including Saturday last, there has been no death registered in London from small-pox. There can, therefore, be no doubt that the disease in the metropolis is distinctly on the wane, and it is greatly to be hoped that the spread which seems to be taking place in our western counties will not reach London. The news from Oxford at the close of February showed that no fresh cases had arisen in that city for some days, the end of the month leaving only 8 persons under treatment from the disease. In Gloucester a serious state of things is present, the disease having within the past three weeks increased to as many as 60 cases in one week alone, and the powers of the sanitary authorities to cope with the existing condition of affairs seem to be strained to the uttermost. In Lancashire a case was reported at Salford last week, the only one there for some time; Manchester having also been free for many successive weeks. In Glamorganshire Dr. Williams, the county medical officer of health, reports that during the first two months of this year there have been 25 cases of small-pox notified in that administrative county—namely, 4 from Pontardawe West, 2 respectively from Aberdare, Pontypridd, and Pontardawe East, 3 from Aberavon, 5 from Merthyr Tydfil, and 7 from Brigend. Up to the close of last week no fresh case of small-pox had arisen at Cardiff workhouse since Feb. 20th, the only suspicious attack being that of a man from Port Talbot who had been admitted to the workhouse last Friday, and who was sent to the sanatorium at once. Complaint was raised at the meeting of the guardians last Saturday that many of the Aberavon lodging-houses were unregistered, and thus inaccessible to the police for purposes of inspection. At the close of last week the Bridgend urban district council had reported to them the seizure of their surveyor by small-pox, as well as of 2 other persons in the town, all three being, on the facts coming to the knowledge of the health officer, at once sent to hospital. No further cases having been recorded at Brynmawr, the decision to erect a temporary small-pox hospital has been abandoned, and use made of the common lodging-house in which cases have already been discovered. The public vaccinator at Llanelly has recently been busy re-vaccinating the county police force stationed there, except such members as were operated on three years ago. Fresh cases of small-pox have been taken to the borough hospital at Swansea, those of last week coming in from the town itself, from Pontardulais, Mumbles, and Cwmbria. At the close of the week there were 12 patients still in hospital out of the total of 15 reported this year. A case at Rhondda last week was at once removed to hospital. Dr. Williams has raised the question of procedure under the Isolation Hospitals Act in Glamorganshire, and deputations

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from several of the constituent districts have been before the sanitary committee of the county council for the purpose of considering the erection of two hospitals, one for small-pox and the second for other infectious diseases. At Blackwood, in Monmouthshire, there have occurred 2 more cases of small-pox at the common lodging-house, the persons now attacked being those who waited on the previous patients. At Carnarvon one of the crew of the *North Cambria*, which steamship lately landed many of her hands at Limerick sick of small-pox, has developed the disease four days after return, and correspondence has elicited that he was held to be suffering from a mild attack on reaching Limerick, and was accordingly isolated with the other patients. Not showing any pronounced rash, he was later placed alone in another part of the building and vaccinated. Whatever the nature of his first attack, his second seems to be undoubtedly small-pox. The admission to hospital at Dublin of a single case of small-pox in the week ending Feb. 22nd left in the institution on that date four patients suffering from the disease. No death occured from the malady.

FOOTBALL CASUALTIES.—On Feb. 8th at Ewell, Surrey, in a match between the Ewell and Guy's Hospital teams, a player of the latter side fractured his leg and was removed to Guy's Hospital. On the same day, during a match on the Caldecot ground, Abingdon, the Abingdon Rovers against the Clothing Factory team, a player sustained a fracture of the right leg; in a game between the Sunningdale and Eton Temperance teams the captain of the latter team fractured his fibula; and in the course of a match on the same day, the Birkenhead Wanderers against the St. Helens Recreation teams, a well-known three-quarter back of the Birkenhead Wanderers received a kick on the head. He continued playing till the end of the match, but the following day he was found to be suffering from concussion of the brain. Pneumonia supervened, to which he succumbed on Feb. 15th.—On Feb. 15th in a match, the Chichester Reserves against the Littlehampton team, a youth sustained a compound fracture of the left leg, and in a game on Feb. 17th at the Steyning Grammar School a youth fractured his left forearm.—On Feb. 20th, in a match on the Richmond (Surrey) Athletic Ground between the Yorkshire and Surrey Clubs, a player fractured his clavicle.—On Feb. 22nd during a match between the Grantham Olympic and Grantham Victoria teams a player fractured his right leg near the ankle; and on the same day in a match at Pudsey between the Pudsey and Elland teams the Pudsey full back was injured. On medical examination subsequently it was found that the muscles of the leg were very severely bruised.

THE PRINCE OF WALES AT BRIGHTON.—His Royal Highness the Prince of Wales, K.G., visited Brighton on Saturday last to lay the foundation stone of a new out-patients' department of the Sussex County Hospital, which is being built at a cost of £3818, and which is but part of a scheme of extensive enlargement of the hospital accommodation which is receiving the attention of the management. The Prince arrived in Brighton, which was crowded with visitors and decorated most elaborately, just after noon, and was joined by the Duke and Duchess of Fife, who are at their Brighton residence, and welcomed by the Mayor and Corporation. A procession was then formed to Paston-place, where, opposite the present buildings and on the site of the new extension, the principal ceremony took place. An address was read from the Corporation, the Mayor (Alderman Blaker) having taken a prominent part in the financial effort, which is to benefit the hospital, and His Royal Highness, in reply, expressed the hope that the sum of £25,000 which is required to carry out the scheme in full, would be meet by the prompt response to the committee's appeal of the borough and county. A short service followed, the newly enthroned Bishop of Chichester (Dr. Wilberforce) offering prayer, and then, with a suitable mallet and trowel, the stone was duly laid. The Duchess of Fife then received from a number of ladies and children purses on behalf of the building fund, a total of £1690 being contributed by this means. Subsequently His Royal Highness inspected the wards of the hospital and was entertained at luncheon at the Royal Pavilion by the Mayor and Mayoress. This was semi-private, the Duke and Duchess of Fife, the Duke of Norfolk, the Marquis of Abergavenny, the Bishop of Chichester, and local dignitaries to the number of about a score alone being present. His Royal Highness was the guest of Mr. Reuben Sassoon, and on Sunday among other visits went around the wards of the Royal Alexandra Hospital for Sick Children, at the opening of which, by Her Royal Highness the Princess of Wales, the Prince and his children were present.

BURNING FATALITIES AT PORTSMOUTH.—No less than four deaths from burns occurred in four days at Portsmouth last week. The first case was that of a little girl of eight who set her clothes on fire at an unprotected grate. The bones of the hands and right forearm were exposed, but she had been kept alive at the hospital since Dec. 20th last, when the accident occurred. A second case was of the same character, a three-year-old boy and a younger child being left near an unguarded fire. A third patient, a lad of twelve, set his clothing ablaze when lighting the fire; and the fourth case was that of a woman of sixty-five, who was found lying on the floor badly burned. It was supposed—for she was dead when found—that in a fit she overturned a table and a paraffin lamp.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Food Products Adulteration.

NINETEEN members have been nominated to serve on the Select Committee of the House of Commons on this question. Most of them are gentlemen who served on the committee appointed by the late Parliament, but there are necessarily several new-comers. It will be matter of regret to medical men that Sir Walter Foster's name does not appear among the nominations.

Public Health Bill for Ireland.

The Government has introduced into the House of Commons a Public Health Bill for Ireland. It is a Bill of twenty-seven clauses, and, for the most part, it extends the operation of the existing law without effecting any serious changes. It enables the sanitary authorities of adjoining districts to combine together for the purpose of executing works that may be for the benefit of their respective districts; it provides for the constitution, jurisdiction and expenses of port sanitary authorities, and it contains a clause intended to remove doubts which have arisen as to the meaning of the expression "medical officer of health" in the application to Ireland of the Infectious Disease (Notification) Act, 1889, and the Infectious Disease Prevention Act, 1890. This clause says the expression shall mean the medical officer of the dispensary district, but makes it competent for the Local Government Board, where a medical superintendent officer of health is appointed for a sanitary district, to direct that he shall be substituted for the medical officer of the dispensary district.

Accidents with Petroleum.

Arrangements have been made for the further prosecution by a select committee of the House of Commons of the inquiry into the sufficiency of the law as to the keeping, selling, using, and conveying of petroleum and other inflammable liquids, and the precautions to be adopted for the prevention of accidents with petroleum lamps.

HOUSE OF COMMONS.

THURSDAY, FEB. 27TH.

The Vaccination Question at Gloucester.

Mr. Chaplin, replying to a question, said that his attention had been drawn to the observations of the Judge of Assize as to the non-enforcement of vaccination in the Gloucester Union, and he was aware of the fact that in consequence of the outbreak of small-pox the assizes were held at Cheltenham instead of at Gloucester. He had been in communication with the guardians of the Gloucester Union on the subject. It was admitted by them that there had been a failure on their part to enforce the provisions of the Vaccination Acts. Since the outbreak of small-pox occurred they had issued notices urging the parents of unvaccinated children to obtain their immediate vaccination. Special arrangements had been made for the attendance of the public vaccinators, and there had been more than 2000 cases of primary vaccination and re-vaccination since the outbreak.

Fever among the Troops in India.

Mr. Caldwell asked the Secretary of State for India whether his attention had been called to the prevalence of enteric fever amongst the European troops in India, and whether he would cause inquiry to be made as to the disposal of the night soil and manure collected in the bazaars and districts of the various cantonments where such enteric fever exists, and in particular as to the size and extent of the manure yards, and how far the night soil and manure are buried, and the seasonal cultivation of the land neglected.—Lord George Hamilton replied: The subject of the prevalence of enteric fever among the British troops in India was considered by a special committee in India a few years ago, and the Government of India are fully alive to the importance of taking all sanitary precautions, including those referred to in the second part of the question to check this disease. The subject is one which is constantly engaging their attention.

FRIDAY, FEB. 28TH.

Stimulants in Irish Workhouses.

Mr. Daly asked the Chief Secretary to the Lord-Lieutenant of

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Ireland if he was aware that the Carrickmacross board of guardians passed a resolution requesting the Local Government Board for Ireland to sanction a reduction in the cost of stimulants from 15*s.* 7*d.* per inmate to 3*s.* 10*d.* in Carrickmacross Workhouse, which was refused by the Local Government Board for Ireland; and whether 3*s.* 10*d.* per inmate is seven times more than is expended in either Clones or Monaghan Workhouses on stimulants?—Mr. Gerald Balfour replied that a resolution substantially to the effect stated was passed by the Carrickmacross guardians in December, 1894. Their medical officer, however, pointed out that he prescribed stimulants only in cases where he honestly and conscientiously believed them to be the best treatment for the cure of disease, the prolongation of life, and the alleviation of suffering; and while he was prepared to carry out the order of the guardians the responsibility of his doing so must rest entirely with them. In consideration of this expression of the medical officer's views the Local Government Board thought it prudent to remind the guardians that under the workhouse rules the medical officer has discretionary power to order such stimulants for the sick poor under his care as he may consider necessary, and that the guardians should not interfere with his discretion in the matter by a resolution of the nature adopted by them, which proposed a hard-and-fast reduction without due consideration of the requirements of each particular case. The cost of stimulants per head of the inmates in the Clones and Monaghan Workhouses in 1893 was about 1*d.* and 6*d.* respectively.

Lunacy Statistics.

Sir Matthew White Ridley, answering a question put to him by Mr. Hobhouse, said that the increase in the number of lunatics in England and Wales during the years 1885-93 was 15·5 per cent. and in Ireland 21·8 per cent. The increase in England and Wales during 1893 and 1894 was 2·5 and 2·3 per cent. respectively, and in Ireland during the figures for Scotland. The question of the causes to which this increase was due had engaged the attention of the Lunacy Boards of all three countries.

MONDAY, MARCH 2ND.

Sickness in the Army.

Colonel Lockwood asked the Secretary of State for War if he would state the percentage of recruits between the ages of twenty and twenty-five that pass through hospital, and what is the percentage of recruits admitted sick during their first year of service.—Mr. Brodrick replied: The medical returns do not treat recruits separately from other soldiers. The admissions to hospital vary so greatly in the different foreign commands that any percentage based upon averages would be misleading, but as regards the United Kingdom for the last year for which the returns are made up, 1894, the admissions per cent. of soldiers between twenty and twenty-five years old was 94·5, and of soldiers in their first year of service 87·6. But these figures include men who were admitted several times over, and we have no returns to show the proportion of men per cent. admitted.

TUESDAY, MARCH 3RD.

Disciplinary Duties of Army Medical Officers.

Dr. Farquharson asked the Under-Secretary of State for War whether a medical officer, if he happened to be the senior in rank, was required to exercise disciplinary power, place under arrest or report for any misconduct one or any of a number of combatant officers in case of the senior combatant officer not exercising his authority?—Mr. Brodrick replied in the affirmative, adding that the clause in the Army Act which enjoins every officer, whether senior or not, and of whatever rank or branch of the service, to exercise authority in case of disorder, applies to medical officers.

The Royal Commission on Tuberculosis.

It had been the intention of Mr. Knowles to bring to the notice of the House certain points in the report of the Royal Commission on Tuberculosis, but when the order was reached there was no time for a speech, and the hon. gentleman contented himself with moving: "That it is expedient that the Commission be reappointed and the scope of its inquiry extended, so that it may further inquire and report on administrative procedures available for reducing the amount of tuberculous material in the food supplied by animals to man." This motion was accepted by the Government and the House.

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THE SCIENTIFIC PRESS, Strand, London.
Infant Feeding by Artificial Means. By S. H. Sadler. Second Edition. 1896. Price 5*s.*

List of the Fellows, Members, Extra-Licentiates and Licentiates of the Royal College of Physicians of London, and of Holders of the Diploma in Public Health, granted conjointly by the Royal Colleges of Physicians and Surgeons, 1896.—Transactions of the Obstetrical Society of London, vol. 37, for the year 1895; part 4 for October, November and December (published by the Society at 20, Hanover-square, London, W., 1896); price 10*s.*—Transactions of the Cremation Society of England, No. 9 (A. Bonner, Cook's-court, Cursitor-street, Chancery-lane, London). 1896. Price 6*d.*—Magazines, &c., for March: Strand Magazine, Strand Musical Magazine, Boy's Own Paper, Girl's Own Paper, Leisure Hour, Sunday at Home, Chapman's Magazine, Pall Mall Magazine, Westminster Review, Fireside, Contemporary Review, Ludgate Monthly, Friendly Greetings.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ABRAM, JOHN HILL, M.D. Lond., M.R.C.P., has been appointed Honorary Assistant Physician to the Liverpool Royal Infirmary.

BARNETT, L. B., M.B., Ch.M. Edin., F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Surgeon to the Dunedin Hospital, New Zealand.

BATCHELOR, F. C., M.D. Durh., L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Gynæcologist to the Dunedin Hospital, New Zealand.

BENSON, THOS., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer of Health by the Tanfield Urban District Council.

BERRY, WM., F.R.C.S. Irel., L.R.C.P., L.R.C.S. Edin., M.R.C.S., D.P.H. Glasg., has been appointed Medical Officer of Health for the Borough of Wigan.

BLAKE, W. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Eighth Sanitary District of the Bromley Union.

BLANCHARD, D. F., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Resident Medical Officer and Public Vaccinator at Beverley, Western Australia.

BROWN, WM., M.B., Ch.M. Edin., has been appointed Honorary Surgeon to the Dunedin Hospital, New Zealand.

CLARKE, J. M., M.D. Camb., M.R.C.P. Lond., M.R.C.S., has been appointed Professor of Pathology and Morbid Anatomy at the University College, Bristol.

CLOSS, J. O., M.B., Ch.M. Edin., has been appointed Honorary Surgeon to the Dunedin Hospital, New Zealand.

COLQUHOUN, D., M.D. Lond., M.R.C.P., M.R.C.S., has been appointed Honorary Physician to the Dunedin Hospital, New Zealand.

COOK, J. W., M.D. Aberd., M.R.C.S., has been appointed Medical Officer of Health by the Walton-on-the-Naze Urban District Council.

DAVIES, LEWIS G., B.A., M.B., B.C. Cantab., has been appointed Resident Medical Officer at the Cardiff Union.

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HASTES, G. LESLIE, M.B., B.Sc. Lond., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Royal Hospital, Sheffield.

EDGEWORTH, F. H., M.B., B.S. Camb., has been appointed Lecturer on Practical Physiology and Histology at the University College, Bristol.

FERGUSON, H. L., L.K.Q.C P. Irel., F.R.C.S., has been appointed Ophthalmic Surgeon to the Dunedin Hospital, New Zealand.

FIRTH, J. L., M.D. Lond., F.R.C.S., L.R.C.P., M.S., B.S., has been appointed Assistant Surgeon to the Bristol General Hospital.

FISHER, T., M.D. Lond.. M.R.C.S., has been appointed Out-patient Physician to the Bristol Hospital for Women and Children.

FOREMAN, JOS., L.R.C.P., L.M. Edin. M.R.C.S. Eng., has been appointed Honorary Consulting Gynæcologist to the Prince Alfred Hospital, Sydney, New South Wales.

FRETHNEY, R. DR., has been appointed Medical Superintendent of the Toowoomba Hospital, Queensland.

GRIFFITH, W., M.B., C.M. Edin., has been appointed Medical Officer by the Milford Urban District Council, vice G. Griffith, resigned.

HANNAH, W. T, M.B., Ch.M. Glasg., D.P.H. Camb., has been appointed Medical Officer for the Buxton Sanitary District of the Chapel-en-le-Frith Union.

HASSELL, G., M.D., Ch.M. Aberd., has been appointed Medical Superintendent to the Mount View and Porira Asylums, New Zealand.

HENRY, GORDON G. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Williton Rural Sanitary District.

HITCHINS, T. H., M.R.C.S., has been appointed Medical Officer of Health for Brailes, Chipping Camden, and Shipston-on-Stour, by the Rural District Councils.

HOLMES, L. S., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Surgeon-Lieutenant in the Launceston (Tasmania) Artillery.

JEFFCOAT, F. H., M.B., Ch.M. Edin., has been appointed Gynæcologist to the Dunedin Hospital, New Zealand.

JONES, EDWARD, M.R.C.S., L.R.C.P., has been appointed House Surgeon to Chichester Infirmary.

JONES, H. T., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Workhouse of the Pembroke Union.

KENDALL, GEO., L.R.C.P. Lond., M.R.C.S., has been appointed Out-patient Surgeon to the Bristol Hospital for Women and Children.

KNIGHTS, JAS. W., has been appointed Analyst for the Borough of Cambridge.

LAMBERT, F. W., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer of Health by the Farsley Urban District Council.

LANSDOWN, ROBERT G. POOLE, M.D., B.S. Dunedin, M.R.C.S., L.R.C.P., has been appointed Surgeon to the Bristol General Hospital, vice W. J. Penny, resigned.

LARKING, ARTHUR E., M.D. Durh., M.R.C.S. and L.S.A., has been appointed Medical Officer of Health for the parish of Chesham.

MACDONALD, J., L.R.C.P., L.M. Edin., L.R.C.S., M.R.C.S. Eng., has been appointed Medical Officer for Skin Diseases to the Dunedin Hospital, New Zealand.

MACK, H. H., L.R.C.P. Lond., has been appointed Medical Officer for the Third Sanitary District of the Ross Union.

MACKINTOSH, ANGUS, M.D., L.F.P.S. Glasg., has been reappointed Medical Officer of Health to the Chesterfield Rural District Council.

MACPHERSON, JAS., M.B., Ch.M. Edin., has been appointed Honorary Physician to the Dunedin Hospital, New Zealand.

MARWOOD, A. W., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Health Officer for Corioshire, Victoria, Australia.

MOFFIT, J. E. J., L.K.Q.C.P., L.M., L.R.C.S. Irel., has been appointed Resident Medical Officer and Public Vaccinator for the Greenough District, Western Australia.

MORTON, C. A., F.R.C.S., L.R.C.P. Lond., has been appointed Out-patient Surgeon to the Bristol Hospital for Women and Children.

PENNY, W. J., F.R.C.S., L.R.C.P. Lond., has been appointed Consulting Surgeon to the Bristol General Hospital.

ROBERTS, E. J., M.B., Ch.B. Univ. New Zealand, has been appointed Honorary Physician to the Dunedin Hospital, New Zealand.

ROWLEY, CHAS., M.R.C.S. Eng., has been appointed an additional Public Vaccinator for the District of Auckland, New Zealand.

SWAYNE, WALTER C., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Lecturer on Practical Midwifery at the University College, Bristol.

TOWNEND, J. H., L.R.C.P. Edin., has been appointed Medical Officer to the Strathmore Hospital, Christchurch, New Zealand.

TREHARNE, J. LLEWELLYN, M.R.C.S., L.S.A., has been appointed Medical Officer at the Cardiff Prison, in succession to C. E. Hardyman, resigned.

TURNER, DUNCAN, L.R.C.P. Lond., L.R.C.S. Edin., has been appointed President of the Dental Board of Victoria, Australia.

WALKER, D., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Banghurst and Tadley Sanitary District of the Kingsclere Union.

WATERS, C. H., M.B., Ch.M. Edin., has been appointed Resident Medical Officer and Public Vaccinator for the Yilgarn District, Western Australia.

WATT, GEO., M.B., Ch.M. Aberd., D.P.H. Aberd., has been appointed Government Medical Officer and Vaccinator for Narrandera, New South Wales.

YOUNG, W. C., F.C.S., F.I.C., has been appointed Analyst by the Whitechapel Board of Works.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BRISTOL GENERAL HOSPITAL.—House Surgeon for three years. Salary £120 per annum, board, residence, &c., provided in the house.

BURTON-ON-TRENT INFIRMARY.—House Surgeon. Salary £130 per annum, with prospective advantages, also coals and gas.

CHARING-CROSS HOSPITAL, London.—Assistant Surgeon.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer for twelve months. Salary £60 per annum, with board, lodging, and washing. Also Clinical Assistantship, fee £5 5s., tenable for three months.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Salary at the rate of £30 per annum, with board and residence.

CORNWALL COUNTY LUNATIC ASYLUM, Bodmin.—Junior Assistant Medical Officer. Salary £100 a year, increasing £10 yearly to £120 a year, with board, lodging, &c.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Clinical Assistant for six months. An honorarium of £10 after six months' satisfactory service will be given, and board, residence, and washing provided.

GENERAL HOSPITAL, Nottingham.—Assistant House Surgeon for six months. Board, lodging, and washing in the hospital provided. Also Assistant House Physician for six months. Board, lodging, and washing in the hospital provided.

METROPOLITAN DISPENSARY, Cripplegate, E.C.—Resident Medical Officer. Salary £175, with furnished residence, and an allowance for coals and gas.

NORTH SHIELDS AND TYNEMOUTH DISPENSARY, North Shields.—Non-resident House Surgeon and Dispenser. Salary £140 per annum.

ROYAL HOSPITAL FOR SICK CHILDREN, Glasgow.—Assistant House Surgeon. Salary £30, with board and washing.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant House Surgeon. Board, residence, and laundry provided.

SUNDERLAND AND NORTH DURHAM EYE INFIRMARY, Sunderland.—House Surgeon. Salary at the rate of £80 a year, out-door, rising to £90 after six months.

THE GENERAL INFIRMARY, Leeds.—Resident Surgical Officer. Salary £100 per annum, with board, residence, and washing.

THE VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea.—Second Honorary Anæsthetist, for one year.

VICTORIA HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Edinburgh.—Resident Physician for six months. Board and lodging are provided and an allowance is made for conveyance at the rate of £24 per annum. Also Non-resident Medical Officer for six months, for out-patients. Salary at the rate of £60 per annum.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Fourth Assistant Surgeon.

WEST RIDING ASYLUM, Wakefield.—Two Resident Clinical Assistants for six months. Board and furnished apartments provided.

WEST SUSSEX ASYLUM.—Medical Superintendent. Salary £450 a year, with unfurnished house (the committee paying rates and taxes), light, washing, coals and vegetables. Applications to the Clerk to the Committee, West Pallant, Chichester, Sussex.

Births, Marriages, and Deaths.

BIRTHS.

BAREFOOT.—On Feb. 26th, at Elm-grove, Southsea, the wife of Surgeon-Captain J. R. Barefoot, Army Medical Staff, of a daughter.

BOND.—On Feb. 26th, at Leyton, Essex, the wife of Mayston Bond, M.R.C.S., L.R.C.P., of a daughter.

DANNE.—On Feb. 23rd, at Cheltenham-road, Montpelier, Bristol, the wife of William Danne, B.A. Dub., L.R.C.P.E., L.R.C.S.I., of a daughter.

DAY.—On Feb. 26th, at Regency-square, Brighton, the wife of Surgeon-Capt. W. Bullen Day, of a son.

DOBIE.—On March 1st, at St. John-street, Chester, the wife of Herbert Dobie, M.D. Edin., of a son.

DOVE.—At Stanwix, Carlisle, on March 3rd, the wife of R. Atkinson Dove, M.B., L.R.C.S. Edin., Brigg, Lincolnshire, of a daughter.

ECCLES.—On Feb. 29th, at Harley-street, W., the wife of W. McAdam Eccles, M.S., F.R.C.S., of a son.

TAYLOR.—On Feb. 25th, at Thruxton, near Andover, the wife of James Taylor, M.D. Irel., of a daughter.

WOULFE FLANAGAN.—On Feb. 28th, at St. Leonard's-terrace, Chelsea, S.W., the wife of Terence Woulfe Flanagan, M.B. Dubl., of a daughter.

MARRIAGES.

BIDDLECOMBE—WOOD.—On Feb. 15th, at St. Margaret's, Westminster, Edward Henry Biddlecombe, M.B., M.R.C.P. Lond., son of D. E. Biddlecombe, North Allington, Bridport, to Rosalind Lawrence, daughter of the late Bennett Wood, of Bath.

WILLEY—PERRY.—On Feb. 27th, at Christ Church, Sneyd-park, near Bristol, Frederick J. Ingor Willey, M.B., B.S. Durh., M.R.C.S., Crouch-end, London, N., to Florence Elizabeth Perry, B.Sc. Lond., second daughter of Benj. Perry, Avonleigh, Stoke Bishop, near Bristol.

DEATHS.

ANDERSON.—On Feb. 24th, at 68, Talbot-road, Bayswater, W., of acute pleuro-pneumonia, A. F. Anderson, M.D., formerly Colonial Surgeon, Straits Settlements.

ANDERSON.—On Feb. 29th, at South Tay-street, Dundee, Alex. M. Anderson, M.D. Glasg., late Medical Officer of Health for the city of Dundee, aged 52 years.

BUDD.—On Feb. 26th, at Barnstaple, Richard Budd, M.D. Edin., in his 87th year.

ROBERTS.—On Feb. 29th, at Redcliffe-square, S.W., Hubert William Roberts, M.R.C.S.

THOMPSON.—On Feb. 25th, at Pengam, near Cardiff, Thomas William Thompson, L.R.C.P. Edin., D.P.H., M.R.C.S. Eng., of Elmfield, Potter's Bar, and Medical Inspector of H.M.'s Local Government Board, late Surgeon 1st Life Guards, aged 44.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (9th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St Thomas's (3.30 P.M.), St. George's (1 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.). Gt. Northern Central (2.30 P.M.).

TUESDAY (10th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (11th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (12th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (13th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY (14th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (10th).—SOCIETY OF ARTS.—8 P.M. Mr. J. Pennell: English Book Illustration, 1860–70.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY (20, Hanover-sq., W.).—Mr. Mayo Robson: Excision of a Portion of Liver for Tumour.—Mr. C. A. Ballance: A Case of Neoplasm Cyst of the Brain treated by Operation.

WEDNESDAY (11th).—LARYNGOLOGICAL SOCIETY OF LONDON (20, Hanover-square, W.).—5 P.M. Report of the Morbid Growths Committee on the Specimen of Fibroma (? Fibro-sarcoma) shown by Dr. St. Clair Thomson. Adjourned Discussion on Foreign Bodies in the Upper Air and Food Passages, introduced by Mr. C. Symonds. Cases and Specimens:—Dr. C. Beale: (1) Cyst between Tongue and Epiglottis; (2) Case of (?) Cancer or Tubercle.—Dr. Bond: (1) Maggots in the Nose; (2) Myxoma of the Vocal Cord.—Mr. E. C. Stabb: (1) Lupus of Palate and Larynx; (2) Tumour of Soft Palate.—Dr. St. Clair Thomson: Myxoma of Vocal Cord.

SOCIETY OF ARTS.—8 P.M. Prof. A. C. Haddon: Peasant Life and Industries in Ireland.

SOUTH-WEST LONDON MEDICAL SOCIETY (Stanley's, 235, Lavender-hill).—8.30 P.M. Mr. Biggs: Puerperal Fever (so-called) with Cases.

HUNTERIAN SOCIETY.—Pathological Evening. Dr. Glover Lyon: (1) Aneurysm of Aorta; (2) Fœtus one inch long.—Dr. A. Chaplin: A Heart with Congenital Disease of its Valves.—Mr. H. H. Tubby: Specimens of Scurvy-Rickets.—Dr. J. H. Sequeira: Intra-abdominal Band of Unusual Length, and Normal Organs Hardened in situ by Injections of Formatin.—Dr. F. J. Smith: Epithelioma of Epiglottis. Specimens: Mr. Targett.

THURSDAY (12th).—OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM (11, Chandos-st., Cavendish-sq., W.)—8 P.M. Card Specimens:—Mr. S. Stephenson: Unusual Arrangement of Retinal Vessels.—Mr. W. G. Laws: Case of Retinitis Circinata.—Mr. B. Clarke: Specimens of Detachment of the Retina, and Sarcoma of the Choroid.—Mr. Doyne: (1) Peculiar Condition of Retina; (2) Ossification of Choroid, &c. 8.30 P.M. Papers: Mr. K. Scott: Keratitis occurring in Leprosy.—Dr. Ormerod and Mr. H. Spicer: Recurrent Paralysis of Third Nerve in Migraine.—Mr. Rockliffe: (1) Case of Leuco-sarcoma of Choroid; (2) Cataract Extraction and Gout.—Mr. R. L. Knaggs: Recurrent Reflex Amblyopia due to Pregnancy.

BRITISH GYNÆCOLOGICAL SOCIETY.—Specimens:—Dr. Purcell: Three Uteri removed by Vaginal Hysterectomy for Malignant Disease.—Dr. Schacht: Unsuccessful Tubal Gestation containing Fœtus. A Discussion on Ventro-fixation, Ventro-suspension, and Allied Operations, with their Results, will be introduced by Mr. M. Tyson.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Great Northern Central Hospital, Holloway).—9 P.M. Papers:—Dr. R. W. Burnet: Acute Rheumatism, followed by Delirium.—Mr. C. B. Lockwood: The Diagnosis and Treatment of Septic Peritonitis (illustrated by the lantern).

FRIDAY (13th).—CLINICAL SOCIETY OF LONDON.—Mr. G. Bird: A Case of Lymph Scrotum and Lymph Varix.—Dr. Coleman and Mr. Ballance: A Case of Subcortical Tumour of the Brain treated by Operation.—Dr. F. L. Benham: A Case of Hæmorrhage into the Pons Varolii; Venesection; Recovery.—Dr. F. J. Smith and Mr. Bidwell: A Case of Tubercular Kidney.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (9th).—LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 1 P.M., Mr. R. M. Gunn: Affections of Cornea.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Mr. G. C. Wilkin: Aural Polypi.

TUESDAY (10th).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: General Paralysis.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

WEDNESDAY (11th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Gowers.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Fowler: Pulmonary Syphilis.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Erythemata.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. Swinford Edwards: Demonstration of the Cystoscope.

LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. S. Morton: Optic Neuritis.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: Pruritus and Prurigo.

THURSDAY (12th).—ROYAL INSTITUTION.—3 P.M. Rev. W. Barry: Masters of Modern Thought—Rousseau.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Mr. R. Barwell: Clinical Lecture.—Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M. Dr. Allan Macfadyen and Mr. A. G. Foulerton: Detection of Pus, Mucus, Blood, and Bile in Urine.

FRIDAY (13th).—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M., Prof. Crookshank: Typhoid Fever and Diphtheria.

ROYAL INSTITUTION.—9 P.M. Mr. W. S. Lilly: The Theory of the Ludicrous.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL.—Mr. Lennox Browne: Recent Clinical and Therapeutical Information concerning Acute Tonsillitis, Chronic Tonsillitis, Chancre of the Tonsil, &c.

SATURDAY (14th).—ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Light.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Ulerythema.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

RAILWAY VIBRATION AND OCULAR FATIGUE.

To the Editors of THE LANCET.

SIRS,—In an age which is essentially one of railway travel and in which so many of us spend an appreciable portion of each day in the train it is surely the duty of railway companies to see that our daily journey is made as little fatiguing and injurious to health as may be. On the majority of lines one may say that, thanks to competition, this duty is fairly well discharged, and that passengers, on that score at least, have little cause of complaint. But my attention has recently been directed to a source of discomfort and of possible injury both to eyesight and nervous system, which is to be found on some of the railways round the metropolis. Possibly my observation may not be entirely novel, but in the interests of the travelling public I venture to draw the attention of fellow practitioners to the subject, in the hope that some who may possess influence in railway quarters will use it to secure an improvement. It is a well-known fact that many persons are subject to nervous headache and ocular fatigue after a railway journey, which in not a few cases even induces sickness. These symptoms are partly due to the rapid flight of objects across the field of vision, causing constant action of the orbital muscles. Recent observations have led me to infer that possibly vibration and jar may play an important part in the causation of discomfort. Travelling a good many times on a certain main line I noticed that in some carriages the passengers never seemed for a moment to sit still, but

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were all continually jerking in various directions whenever the train was running, and the higher the speed the greater seemed the motion of the passengers. The movement was not a rhythmical oscillation, but a series of rapid shakings in every direction. In other carriages this jerking movement was hardly, if at all, perceptible. The carriages being of identical construction I turned my attention to the seats, and found that in the carriages where the jerking movement occurred the cushion was placed on a woven wire fabric suspended on a wooden frame extending across the carriage. In the carriages where least vibration existed the springs were of the ordinary spiral description. It is obvious even to a non-mechanical observer that in the first case the passengers are seated on a suspension spring, having a very short play and sharp, jerky movements of recoil, whereas in the older form of spiral compression springs the weight is carried on a system of springs which take up most of the shock arising from inequalities of the road without transmitting it to the spine and brain of the traveller. In a daily journey of, say, an hour the number of unnecessary vibrations and repeated concussions inflicted on the travellers seated on these woven wire seats must be very injurious, especially so in the case of persons who make a practice of reading the paper on their way to business. I can imagine nothing more damaging than the endeavour to keep the eyes focussed on a sheet of small type which the jerky movements of the seat must keep constantly in rapid motion. Some time ago mention was made of the benefit resulting to ataxic patients from the oscillations of an express train. For this purpose, nothing can be better suited than the woven wire seats I have described. I trust, however, that for ordinary travellers you will grant space to my plea for the older form of seat.

I am, Sirs, yours faithfully,

March 3rd, 1896. ANTI-VIBRATION.

K. B. is informed that we must keep in this case to our invariable rule, which is never to recommend individual practitioners or any course of treatment.

A CHINESE DOCTOR'S TREATMENT OF RHEUMATISM.

MR. W. E. FALES writes to the *Manchester City News*:—

"When I was acting American Consul at Amoy one of my employés fell sick with a severe attack of rheumatism. He stood the pain bravely for three days, refusing all 'foreign devil medicine,' and on the fourth sent for a native physician. The latter duly arrived, and began preparations for treatment of the malady, which he announced to be due to the presence of a 'darting snake' in the sufferer's body. Incense-sticks were lighted and placed just outside the door, and also in the room. A pack of fire-crackers was set off and a talismanic paper pasted to the wall. This was done to drive away evil spirits and attract good ones. The doctor next wrote a lot of characters on a thick piece of paper with a vermilion pencil and set fire to it. It burned into a black ash, which was broken into a cup of water and drunk by the patient. A great bowl of herb tea was made, of which a cup an hour was the allotted dose. The son of Æsculapius next bared the body of my servant, and drove deep down into it at nine points a long needle moistened with peppermint. He did it with such skill in avoiding large bloodvessels that the hæmorrhage was insignificant. He then covered each puncture with a brownish paste, and this, in turn, with a piece of dark paper. He then collected his fee, fifty cents, and departed. The sufferer soon fell into a sleep and the next day announced that his pains had departed. He remained in his bunk two more days, laughing, chatting, smoking cigarettes, and once or twice using the opium pipe, and then reported as being well. He left the paste and paper in place until they fell off. The skin was smooth and the scar hardly perceptible. He took his recovery as a matter of course, his only comment being that the darting snake was thoroughly dead."

SECTION CUTTING.

Mr. S. S. Larcombe.—"Elements of Practical Histology," by Weichselbaum, translated by Dr. W. R. Dawson (Longmans, 1895), should meet our correspondent's requirements.

"ADVERTISEMENT."

To the Editors of THE LANCET.

SIRS,—I beg to enclose for your inspection a begging circular from St. Peter's Hospital which has been sent to me in common with, I suppose, thousands of other householders. Upon it are printed the names of members of the staff, together with their surgical qualifications and their private addresses. The fact of the addresses of the other members of the committee being also printed does not, to my thinking, make the plan any the less distasteful. A medical friend tells me that before this hospital was removed to Covent Garden the private addresses of the members of the staff were boldly painted on a black board just inside the doorway, so that, as my friend said, the man in the street might put his head in and find where to go for relief. He did not know whether the same arrangement obtained in the new hospital. I hope not. Certainly in the general hospital in which I happen to be interested no such advertisements would ever be tolerated by either the medical or the lay members of the committee of management.

I am, Sirs, yours obediently,

March 2nd, 1896. NON-SUBSCRIBER.

WHITE BREAD OR BROWN BREAD?

THE quality of the flour from which bread should be manufactured has been the subject of considerable discussion lately, not only in this country, but also in France and on the continent generally. In a recent number of the *Revue d'Hygiène* Dr. Vallin has an article in which he deals with the matter at length and in great detail. Although far from being a partisan of very white bread, which he believes to be less nutritious than the brown variety, the author is still less an advocate for *pain complet*, that is, bread made with flour from which nothing but the outer husk of the grain has been removed. Bread thus manufactured he regards as decidedly unwholesome, on account of the large amount of indigestible bran it contains. In small quantities it may possibly be useful as a stimulant to people whose intestinal functions are sluggishly performed, its effects in such cases being similar to those of mustard, but if employed exclusively it is likely to set up gastric irritability and catarrh. The conclusions which Dr. Vallin finally arrives at are thus shortly stated. White bread may be recommended to gourmets and such as live on the fat of the land; home-made bread to working men, soldiers, growing youths of both sexes, and pregnant women; *pain complet* is only fit for dogs, or occasionally as a remedy in constipation. Generally speaking, these conclusions are sound enough, but it must not be forgotten that the wheats of different countries vary considerably *inter se*, and are by no means all equally digestible when made into flour. In some grains it is necessary to remove the whole of the envelopes, while in others slight decortication suffices.

MEDICAL ATTENDANCE UPON ACCIDENTS.

To the Editors of THE LANCET.

SIRS,—On the night of Feb. 27th a commercial traveller was thrown from his trap and received a dislocation at the shoulder and also concussion of the brain. The accident occurring near A.'s residence some one went for him, but found that he was away from home. They then telegraphed for B., who resides at a distance of two miles. In the meantime the policeman went for C., who accompanied him to the hotel and found the patient as stated above. C. reduced the dislocation and attended to his comfort till a bed was made ready. At this point A. came in and looked at the patient and C. told him what was wrong. B., having then driven up, A. (who is very friendly with B.) went out and had a chat with him. C. was then asked to go out and consult with A. and B. after they had looked at the patient. A. then told C. that the case was his (A.'s) as he was sent for first, and that C. had only done what any medical man would do for another. B. declined to say very much. C. said he thought that the case properly belonged to him as he personally knew the patient, but if A. thought he (A.) was legally entitled to the case C. would give it up in his favour. A. then told the landlady of the hotel that he would take charge of the patient and would see him later, and he has seen him since. A. has had a consultation with the patient's family attendant from a distance. Is C. entitled to a fee, and, what fee is reasonable? Who was really entitled to attend the case afterwards? In cases of severe accident is the medical man who attends to the injuries or the one who is first sent for legally entitled to the case?

I am, Sirs, yours faithfully,

Feb. 28th, 1896. LEX.

*** In cases of accident half-a-dozen medical men may be sent for, but the case fairly becomes the charge of the one who arrives first, where, as here, none of the three gentlemen concerned was the family attendant of the patient. It is the business of the police to find prompt medical help. The attendances of A. and B. deserve recognition from the patient.—ED. L.

INSURANCE AGAINST SICKNESS OR ACCIDENT.

To the Editors of THE LANCET.

SIRS,—Will you please inform me of the address of an insurance society for medical men in case of sickness or accident?

I am, Sirs, yours truly,

March 2nd, 1896. G. N. T.

*** The Sickness and Accident Assurance Association, Limited, of 64, Moorgate-street, E.C., offers insurance of the kind indicated by its title to professional men, and the Medical Sickness Annuity and Life Assurance Society, of 33, Chancery-lane, E.C., covers the sickness risk. But we are not able to decide upon the comparative merits or competing claims of these two societies.—ED. L.

MEDICAL MEN AND THE INTERVIEWER.

WE have several press extracts before us showing the danger to medical men of the interviewer when he comes in "such a questionable shape." Some are from New South Wales, and one is from "gallant little Wales" itself. The recent discoveries of science and of medical science lend themselves to the uses of the interviewer. But it is for the scientific man to guard himself against his approaches. The new photography is now at the service of all surgeons as much as iodoform or carbolic acid, but to allow the use of it to be the occasion of an article in a paper or an interview setting the surgeon up as a prodigy of prescience and skill is bad form. We withhold names this time.

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THE SULBY DROWNING CASE.

Dr. Pinder.—Our correspondent must be guided by his lawyer in regard to any action against the *Ramsey Weekly News*. But we have no hesitation in expressing our opinion that, on the evidence as given in detail in the *Ramsey Courier*, the comments of the *Ramsey News* are completely unjustified. It has been assumed that Dr. Pinder promised a cure, which Dr. Pinder emphatically denies having done; and he seems to assume, further, that the return of the disease was known to be a certainty by the operator, which is not warranted by any facts. If our contemporary's argument against Dr. Pinder is well founded every operation for the removal of cancer is unjustifiable. Ours is a hard profession; we are left to do battle with otherwise hopeless cases and are liable to blame if we fail. It is not difficult to conceive a morbid depression in a patient who had suffered from a recurrence of disease of so painful a character enough even to lead to fatal steps; but it is beyond all fair criticism to blame a medical man who did the best that surgery could do for his patient, and whose charges for what he did were perfectly reasonable and according to his own contract.

A PROPHECY OF THE NEW PHOTOGRAPHY.

A LETTER in the *Dundee Advertiser* points out that the late Dr. Andrew Blair, a medical man, a native of Dunfermline, latterly resident in Tayport, and well-known in Dundee, in a work issued anonymously and published in three volumes in 1874 by Samuel Tinsley, London, foreshadowed the discovery of the Roentgen rays. The work is entitled, "Annals of the Twenty-ninth Century; or, the Autobiography of the Tenth President of the World-Republic." The realisation in less than a quarter of a century of a scientific achievement deemed sufficiently wonderful to warrant in the forecast its postponement for ten centuries is a remarkable tribute to the inventive ingenuity of the age in which we live. The passage referred to will be found at page 105 of Vol. III. and is as follows:—

"I perceived the Secundines could not only make glass and stones and all inorganic substances malleable, but possessed a power undreamed of by man of making them transparent. ..... I was shown animals, upon which the youths were taught zoology and comparative anatomy, in some of which the skin was like a glass case, showing beneath the working of the muscles; in others the skin and muscles were pellucid, showing the circulatory system; in others all was perspicuous save the bones, with the view of their being subservient to the study of osteology; while in others still the whole body was vitreous."

The development of Professor Roentgen's discovery reported from Italy, whereby the eye is to see straight through the ordinarily opaque tissue, is no more wonderful than Dr. Blair's wild fancy that the opaque tissues should themselves become transparent to the ordinary limited eye.

THE ADVERTISEMENT OF MEDICAL BOOKS IN THE LAY PRESS.

A CORRESPONDENT has enclosed to us the following advertisement, upon the publication of which in the lay press he desires an expression of opinion:—

STERILITY IN WOMEN: ITS CAUSES AND CURATIVE TREATMENT. By J. B. RYLEY, M.D., M.R.C.S., London. An Illustrated Edition of this work is now ready. Price 3s. 6d; post free 3s. 8d.—London: Henry Renshaw, 356, Strand.

We are decidedly of opinion that such an advertisement should not appear in the lay press.

"THE PULSE-GLASS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Feb. 22nd one of your correspondents asks for further information anent the pulse-glass. Some of these "toys" contain coloured or plain alcohol, others ether or, perhaps, water, where the vaporous or gaseous constituent vapour is expelled by boiling and the opening hermetically sealed by a blowpipe. By grasping one of the bulbs the hand's heat causes the distension of the enclosed vapour, which bubbles through and pushes or "pulses" the fluids into the opposite end. Doubtless the name of pulse-glass alludes to the driving and oscillation or alternate expansion and contraction thus produced, which, of course, has nothing to do with the physiological pulse as the beating of an artery. The old meaning of the word "to pulse" was "to drive"; thus, Smith on "Old Age" (1665) states that "the blood must therefore be brought into the left ventricle of the heart, whence it is *pulsed* into the aorta." (See Dr. Samuel Johnson's "English Dictionary," 1818, in four volumes.) Therefore, probably the pulse-glass originally meant a driving-glass.

I am, Sirs, your truly,
Brighton, Feb. 22nd, 1896. J. LAWRENCE HAMILTON, M.R.C.S. Eng.

To the Editors of THE LANCET.

SIRS,—Your correspondent, "A Medical Man," will find pulse glasses figured and priced in most of the large surgical instrument catalogues; I find one in Arnold's list for last year. These, of course, are sand glasses for timing the pulse-rate. In the toy shops he will find, under various fanciful names, a glass tube such as he describes, with a bulb at one end partly filled with coloured fluid; when the bulb is held in the hand the fluid passes into a state of ebullition, presumably from the low boiling point of the liquid or because a partial vacuum was produced in the tube before sealing.

I am, Sirs, yours faithfully,
Harrow-on-the-Hill, Jan. 24th, 1896. F. HYDE MABERLY, M.D. Dub.

To the Editors of THE LANCET.

SIRS,—This is a piece of apparatus to illustrate the law of ebullition—viz., that a liquid boils when the vapour arising from it balances the pressure of the air upon it. It consists of coloured alcohol in a tube, with a bulb at each end. The bulbs are vacuous, and the heat of the hand is sufficient to make the alcohol boil. It is not, and never has been, used as a pulse gauge of any sort whatever.

I am, Sirs, yours truly,
J. L. KERR, M.D. Aberd., F.R.S. Edin.
Crawshawbooth, Manchester, Feb. 26th, 1896.

AN ODD LOCUM TENENS.

THE following extract, says *La France Médicale*, is taken from the "Memoirs of Marshall Castellane":—

"The Marchioness of Talarn is over fifty, but she believes it is absolutely necessary for the good of her health that she should have a man beside her at night. Whenever M. de Talarn is absent she consequently makes her people sew up M. de Courtivron, one of his relatives, or else M. de Chavagnac, one of his friends, in a sack, and has him put into her bed. In the morning she is careful to summon her attendants, or, at all events, the chambermaid, in order that they may testify that the sack has not been unsewn. At present MM. de Chavagnac and de Courtivron both happen to be away at Madrid, attached to the embassy of M. de Talarn, so it is M. Boirot, physician of the Néris hydropathic establishment, who for the moment occupies the post of honour. I can assure you that this is in no wise a jest. My secretary is connected with the doctor, who, positively, is shut up in the sack every night."

Mr. G. M. C. Lowe.—Our correspondent does not give us much information, but even with full details no very definite answer could be given. A vitiated atmosphere is very bad for anyone to sleep in, but the extent to which it would be vitiated by the proceedings described might be *nil*. Again, a subject with "a weak chest" might be more readily distressed than a perfectly sound person, but as to exactly what "a weak chest" is we do not take on ourselves to guess. We would suggest that the lad should describe to his family medical attendant exactly what happens, have himself physically examined, and take the consequent advice.

A Medical Man.—Such conduct is within the bounds of the law, but it is not to be approved.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 5th, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Feb. 28	30·12	WNW	49	48	75	56	37	...	Raining
,, 29	30·13	S.W.	47	46	60	55	46	0·01	Raining
Mar. 1	29·79	S.W.	52	50	60	54	46	0·04	Raining
,, 2	29·53	N.W.	41	39	79	51	39	0·06	Fine
,, 3	28·86	S.W.	47	46	67	50	40	0·20	Stormy
,, 4	28·83	S.W.	40	38	63	48	36	0·07	Cloudy
,, 5	29·36	N.W.	44	41	79	49	37	0·19	Cloudy

During the week marked copies of the following newspapers have been received:—*Blackpool Times, Walsall Advertiser, Isle of Wight Observer, Manchester Guardian, Scotsman, Eastern Daily Press, Sheffield Independent, Liverpool Courier, Express Star (Wolverhampton), Leicester Daily Mercury, Birmingham Post, Grantham Journal, Western Morning News, North Middlesex Chronicle, Nottingham Guardian, Bedford Observer, Finchley Free Press, Wolverhampton Chronicle, Pullen's Kent Argus, Glasgow Herald, Bristol Mercury, Times of India, Pioneer Mail, Sussex Daily News, Builder, Freeman's Journal, Liverpool Daily Post, Architect, Brighton Gazette, City Press, Eccles Advertiser, Yorkshire Post, Medical Record (New York), Leeds Mercury, Citizen, Sanitary Record, Montreal Herald, Umpire, Glasgow Record, Surveyor, Cornish Post, Sydney Bulletin, Lincolnshire Echo, Hemel Hempstead Gazette, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Reading Mercury, Mining Journal, Hertfordshire Mercury, Daily Telegraph (Sydney), Northern Daily Mail, Northern Guardian, Gloucestershire Chronicle, Englishman (Calcutta), Surrey Advertiser, Kingston and Surbiton News, Local Government Journal, Lake's Falmouth Packet, Irish Ecclesiastical Gazette, Warehouseman, North British Advertiser, Chatham News, Royal Cornwall Gazette, Braintree and Bocking Advertiser, Huddersfield Examiner, Le Temps (Paris), Paddington and West London Mercury, Kingston and Surbiton News, Surrey Comet, &c. &c.*

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Communications, Letters, &c., have been received from—

A.—Mr. R. B. Anderson, Lond.; Mr. H. W. Allingham, Lond.; Messrs. Arnold and Sons, Lond.; Anti-vibration, Lond.

B.—Dr. P. M. Braidwood, Amersham, Bucks; Dr. H. S. Bennett, Lond.; Dr. G. Buchanan, Lond.; Mr. C. Bell, New York; Mr. H. Bennett, Darlington; Mr. W. J. Bell, Queensland; Mr. P. T. Beale, Lond.; Mr. L. A. Bidwell, Lond.; Mr. J. J. B. Blackburn, St. Heliers, Jersey; Mr. G. R. Butler, Lond.; Mr. T. B. Browne, Lond.; Mr. F. Bauermeister, Lond.; Mr. B. Barrow, Ryde; Messrs. Brady and Martin, Newcastle-on-Tyne; Messrs. J. Bell and Co., Lond.; Messrs. Burroughs, Wellcome and Co., Lond.; Messrs. Burgoyne, Burbidges and Co., Lond.; Branch Medical Council, Dublin, Registrar of; British American Ball Nozzle Co.

C.—Dr. R. H. Coombs, Bedford; Mr. F. J. Carter, Taormina, Sicily; Mr. R. Cuffe, Woodhall Spa; Messrs. Cassell and Co., Lond.; Messrs. Clarke, Son and Platt, Lond.; City Hosp., Liverpool, Sec. of; Civil Rights Defence Committee, Lond., Sec. of; Central Lond. Throat, &c., Hosp., Sec. of; Chelsea Hosp. for Women, Sec. of; Cortland Wagon Co., Lond.; Co-operative Advertising Assn., Lond.; Crystal Palace Co., Lond., Manager of.

D.—Dr. C. Dukes, Rugby; Mr. A. Doran, Lond.; Dr. N. B. Darabseth, Bombay; Dr. D. S. Dowse, Lond.; Mr. L. Demetriadi, Huddersfield; Mr. V. De Brandt, Lond.; Mr. G. S. Davis, Detroit, Mich., U.S.A.; Mr. H. Dutch, Lond.; Derbyshire Roy. Infirmary, Sec. of.

E.—Messrs. Elder, Dempster and Co., Lond.; "El Ingeniero," Lond., Proprietors of.

F.—Dr. J. Findlay, Dumfries; Herr G. Fischer, Jena, Germany; Messrs. Fry and Sons, Bristol; Fly Fisher, Lond.

G.—Dr. L. G. Guthrie, Lond.; Dr. A. Gamgee, Lausanne, Switzerland; Dr. J. Galloway, Lond.; Mr. H. H. Gunnell, Otley; Mr. J. Galpin, Lond.; Mr. J. J. Griffiths, Lond.; Mr. R. A. Germaine, Lond.; Gt. Northern Central Hosp., Lond., Sec. of; Galignani Library, Paris; Gamma, Lond.; G. N. T.

H.—Dr. H. Hoole, Lond.; Mr. F. R. Humphreys, Lond.; Mr. J. Heywood, Manchester; Mr. J. H. Haywood, Nottingham; Miss Hooper, Lond.; Messrs Harrington, Latham, and Co., Coventry; Hyde, Frodsham; H. S. G., Lond.

I.—Dr. J. M. Ismail, Basmora, Hyderabad; Messrs. Ingle and Co., Clapham.

K.—Dr. O. J. Kauffmann, Manchester; Dr. J. Kirkland, St. Leonards-on-Sea; Dr. E. Kingscote, Salisbury; Messrs. Keith and Co., Edin.

L.—Dr. R. F. C. Leith, Edin.; Dr. W. Lansdale, Lond.; Prof. Lodge, Liverpool; Mr. F. W. Lowndes, Liverpool; Mr. W. Lindsay, Portsmouth; Mr. F. G. Lloyd, Lond.; Mr. F. G. Larkin, Grove Park, Kent; Messrs. Longmans, Green, and Co., Lond.; Leeds Gen. Infirmary, Managers of.

M.—Dr. J. D. McCaw, Lond.; Mr. E. Merck, Lond.; Mr. J. R. Morison, Newcastle-on-Tyne; Mr. W. McCagne, Ely; Mr. J. H. Morgan, Lond.; Messrs. McKenna and Co., Lond.; Middlesex Hosp., Lond., Sec. Supt. of; Motor Car Club, Lond., Sec. of; *Midland Counties Herald* Office, Birmingham; Maltine Mfg. Co., Lond.; M., Lond.

N.—Messrs. Newton and Co., Lond.; North Shields Dispensary, Tynemouth, Sec. of; National Typewriter Exchange, Lond., Manager of; Non-Subscriber, Lond.

O.—Surg.-Major P. J. O'Sullivan, Portsea; Mr. E. Owen, Lond.; Owens College, Manchester, Principal of.

P.—Mr. E. F. Parry, Lond; Mr. E. T. Pearson, Coventry; Mr. O. Penfold, Melbourne.

R.—Dr. T. Robinson, Lond.; Dr. W. Robertson, Philadelphia; Mr. T. R. Roberts, Carnarvon; Messrs. Richardson Bros. and Co., Liverpool; Messrs. Roger and Chernoviz, Paris; Roy. Med. Benevolent College, Lond., Sec of; Roy. Institution of Gt. Britain, Lond., Hon. Sec. of.

S.—Dr. J. B. Spence, Burntwood; Dr. F. J. Smith, Lond.; Dr. C. Slater, Lond.; Dr. S. H. A. Stephenson, Lond.; Surg.-Capt. E. R. Sleman, Lond.; Mr. J. Snowman, Lond.; Mr. J. D. Staple, Bristol; Mr. H. W. Scriven, Lond.; Mr. J. H. Sewart, Lostwithiel; Messrs. E. and F. Swain, Lond.; Messrs. Street Bros., Lond.; Messrs. F. and A. Swanzy, Lond.; Messrs. Stubbs, Birmingham; Messrs. Stubbs, Lond.; Messrs. Stubbs, Hull; Messrs. W. H. Smith and Son, Birmingham; Samaritan Free Hosp. for Women and Children, Lond., Hon. Sec. of; St. Luke's Hosp., Lond., Student's Club, Lond., Hon. Sec. of; Sanitary Institute, Lond., Sec. of.

T.—Dr. F. Taylor, Lond.; Dr. W. E. Thomson, Glasg.; Mr. C. Taylor, Lond.; Mr. F. W. Thelwell, Enfield; Tottenham Deaconesses' Hosp., Lady Supt. of; Torquay Med. Society, Hon. Sec. of.

V.—Sir Somers Vine, Imperial Institute; Victoria Hosp. for Children, Lond., Sec. of; Viator, Lond.

W.—Dr. F. N. Windsor, Wazaristan, India; Mr. S. Wand, Leicester; Mr. R. H. West, Taunton; M... J. Wesley, Exeter; Mr. J. ... Walsh, Halifax; Herr G. Weigand, Homburg; Miss Webb, Lond... Messrs. J. Wright and Co., Bri... tol; Worshipful Co. of Plumbers, Lond., Sec. of; West Middlesex Institution, Lond., Hon. Sec. of; West Riding Asylum, Wakefield, Sec. of.

X.—X. Y. Z., Cardiff.

Letters, each with enclosure, are also acknowledged from—

A.—Dr. A. J. Adkins, Banbury; Dr. J. Althaus, Lond.; Mr. E. Appleton, Stockton-on-Tees; Apollinaris Co., Lond.; Aleph, Lond.; Alpha, Manchester; Acis, Lond.; A. B. K., Lond.; Assistant, Acton.

B.—Dr. Bradburn, Masham; Dr. E. D. W. Baillie, Shanghai; Mr. G. C. Birt, Lond.; Messrs. Blondeau et Cie, Lond.; Bury Dispensary Hosp., Sec. of; Bristol Eye Hosp., Sec. of; Bond, Lond.; Bristol, Lond.; Buckthorn, Lond.

C.—Dr. W. Coates, Lahore; Mr. H. Case, Ulverston; Mr. C. Clark, Wolverhampton; Mr. T. J. Croke, Beverley; Mr. H. Carley, Woolston; Messrs. A. Cohen and Co., Lond.; Calcis, Lond.; C. C., Lond.; Clinic, Lond.; Carbon, Lond.; C. E. C. L, Lond.

D.—Mr. H. A. Duffett, St. Leonards; Mr. H. Dight, Newport, Mon.; Doctor of Medicine, Lond.

E.—Dr. W. M. A. Eccles, Lond.; Edin., Lond.; Extensor, Lond.

F.—Dr. J. Findlay, Penport; Mr. C. E. S. Flemming, Freshford; Mrs. Forty, Laleham.

G.—Dr. C. N. Gwynne, Sheffield; Mr. F. C. Garrett, Worksop; Mr. C. E. P. Groth, Lond.; Messrs. Green and Williams, Nottingham.

H.—Mr. J. Hood, Berth; Mr. W. A. Hardiker, Priors Hardwick; Mr. Huish, Croydon; Mr. J. H. Hawes, Chichester; Mr. N. Hannah, Ashton-in-Makerfield; Messrs. Hooker and Webb, Croydon; Messrs. Hooper and Co., Lond.; Holbeck, Leeds, 18, Victoria-road; H. G. S., Lond.

I.—Dr. M. Ismail, James Bazaar, India; Ickringill's Patent Hygienic Syndicate, Keighley.

J.—Dr. C. H. L. Johnston, St. John's, New Brunswick; Mr. W. H. Jones, Llanrwst; Mr. E. Jones, Liverpool; Mr. C. S. Jeaffreson, Newcastle-on-Tyne; Mr. W. A. Jenkin, Castlerock; Messrs. Jarrold and Sons, Norwich; J. F., Brighton.

K.—Mrs. L. E. Kelly, Kingstown, Ireland; Messrs. Kieson and Co., Lond.

L.—Mr. S. C. Lawrence, Tilt Cove, Newfoundland; L. M. N., Lond.; Lucuna, Lond.

M.—Mr. W. I. Mason, Sudbury, Suffolk; Mr. J. Mitchell, Sandwick; Mr. G. B. Moreton, Sea Chart; Mr. J. Milne, Lond.; Mr. J. B. Monks, Bury; Messrs. Minshalls and Parry-Jones, Oswestry; Messrs. Milton and Co., Lond.; M.R.C.S., Manchester; Medicus, Lond.; Medicus, Seacombe; M., Lond.; Medicus, Ely.

N.—Dr. J. Nevin, Leicester; Nayr, Lond; Nemo, Lond.; Northern, Lond.

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The Lettsomian Lectures
ON
THE OBJECTS AND LIMITS OF OPERATIONS FOR CANCER.

Delivered before the Medical Society of London

BY W. WATSON CHEYNE, F.R.C.S. ENG., F.R.S.,
PROFESSOR OF SURGERY AT KING'S COLLEGE; SURGEON TO KING'S COLLEGE HOSPITAL, ETC.

LECTURE III.[1]

Delivered on March 2nd, 1896.

MR. PRESIDENT AND GENTLEMEN,—In this lecture I propose to discuss the various points raised by the cases of cancer of the pharynx which I narrated on the last occasion—viz., the methods of operating, the after-treatment, and the results. In connexion with this matter I have searched the literature very thoroughly for all cases of similar operations on the pharynx, and the result is shown in Table III. In this table I have included cases both of sarcoma and carcinoma for the reason previously stated, but I have excluded instances where the disease only affected the soft palate or the hard palate and did not extend on to the wall of the pharynx. I have also not included some comparatively trivial operations which have been performed from the mouth; operations, for example, where little pieces of tumour growth have been clipped away or snared away, and where the problems which one wishes to consider do not arise. A few operations which appear at first sight to come under this head do undoubtedly appear in the first division of the table, but they are very few in number, and I have not sought to add to them, and on the whole those included even in the first group have been extensive. I have also excluded as far as possible operations which were manifestly left incomplete. A few have also been left out in which the method of removal employed has been inefficient; for example, a case by Studsgaard where a sarcoma was removed by scraping the tumour. And lastly, I have omitted two cases which are frequently referred to in the papers which I have read—namely, one by Schönborn and one by Richardson, where large sarcomata in the wall of the pharynx were removed from outside without opening the pharyngeal cavity. With these exceptions I have as far as I can find included all the cases that have been published.

Before proceeding to consider the results as shown by this table I must make some remarks with regard to various points in connexion with the operation. It will be seen on studying the various cases that numerous methods have been employed for gaining access to the pharynx, and some of these methods have been extensively advocated. Perhaps the operation which has gained the greatest popularity is von Langenbeck's method of gaining access to the tonsil by division of the jaw in front of the masseter. According to this method an oblique incision is made in the anterior triangle downwards to the cornu of the hyoid bone, and then the cheek is divided from the angle of the mouth obliquely downwards and outwards, this incision joining the jaw just in front of the masseter muscle and crossing the oblique one in the neck. The jaw is then sawn through in front of the masseter, and the parts being held aside the tonsillar region is exposed to view. Many modifications have been introduced in this method, more especially in the way of skin incisions, but to these I need not allude. A very important alteration has, however, been made by Mikulicz, which is coming into vogue and consists in division of the ascending ramus of the jaw just above the angle and the extirpation of the whole ramus. A third method which has also been a good deal employed is von Langenbeck's subhyoid pharyngotomy, in which a transverse incision is made in front of the neck through the thyro-hyoid membrane close to the hyoid bone, and the epiglottis being hooked aside a good view of the interior is obtained. My own opinion, however, is that no particular method can be followed in these cases. They are rare and the number which falls into the hands of any one surgeon must be very few, and consequently they will all probably differ from one another in the extent and distribution of the disease; hence each case probably requires a different method of attack, and the surgeon must carefully plan out each operation for himself and not follow any definite rules. I may now refer to the following points.

1. *The question of preliminary tracheotomy.*—It is, of course, an advantage if one can manage it to avoid preliminary tracheotomy, for that adds additional complications in several ways. In the first place it means another wound which must become septic; it means irritation of the trachea by the presence of the tube and the admission of cold air; and it also means very distinct interference with coughing and the power of expelling any discharges which may have entered the larynx. Where the external carotid artery is ligatured, and the bleeding is consequently very small, there is not much chance of blood entering the trachea, especially if the head is thrown well back; and in cases where the jaw is divided, and more especially where a portion is taken away, it may also be possible to avoid the risk of blood passing into the lungs. Where, however, an attempt is made to remove the tumour without division of the jaw or without ligature of the external carotid artery, and where the mass fills the throat, and more especially where it runs down towards the entrance of the larynx and on to the tongue, the necessary manipulations cannot be carried out without interfering with the breathing and exciting so much effort on the part of the patient that there is very great risk of septic discharge and blood being drawn into the lungs; and, besides, it is very necessary in these operations, in order to ensure that the disease is as thoroughly removed as possible, that there shall be no haste in their performance and that the surgeon shall be able to see exactly what he is doing. Some prefer to do the tracheotomy three or four days before the major operation, but I fail to see the advantage of this; on the contrary, it must be remembered that after three or four days the discharge from the tracheotomy wound has become more or less septic, and consequently in introducing a big tube such as Hahn's some of the pus may be pushed before it into the trachea. It is well to bear in mind that where septic pneumonia occurs by direct entrance of materials into the air passages and not as the result of a general infection it is not the entrance of pure blood which sets it up, but of blood mixed with septic discharges from the throat or of pure blood in the first instance fouled subsequently by the inhalation of the putrid materials from the wound. On looking at Table III. it will be seen that in Group II. A the mortality where tracheotomy was performed is double that where there was no tracheotomy—viz., 38 per cent. in the former case to 19 per cent. in the latter; and further, we find that of the fatal cases with tracheotomy (13 in number) 7, or 20 per cent. of the cases operated on, died from septic lung trouble, while only 1 of the fatal cases without tracheotomy (7 in number), or 2·7 per cent. of the cases operated on, died from the same cause. On these bare facts one would be inclined to regard tracheotomy as a very serious addition to the risk, but on looking into the cases we see that those where tracheotomy was performed were on the whole much more severe, and consequently accompanied with greater danger. Further, it will be found that in 6 out of the 7 tracheotomy cases which died from septic pneumonia the base of the tongue was affected, and this was also the case in the patient who died without tracheotomy. It is evident, therefore, that the seat of the disease had much to do with the fatal result, and I do not think that we can fairly attribute the septic pneumonia to the tracheotomy. At any rate, it is clear from these facts that preliminary tracheotomy is by no means an absolute safeguard against septic pneumonia, and I should be inclined to try to do without it where the disease is high up or where it is behind the tonsillar region, and where the base of the tongue or the neighbourhood of the glottis is not interfered with. Where the base of the tongue is interfered with the patient does not swallow nearly so readily as where this is not the case, and, consequently, discharges are apt to accumulate about the orifice of the larynx and so get down into the trachea after the operation. Hence in these cases I think it is well not only to perform preliminary tracheotomy, but also to go on with Hahn's tubes for some days after the operation—till, in fact, the patient has, to some extent at any rate, regained the power of easy swallowing.

[1] Lectures I. and II. were delivered on Feb. 3rd and 17th respectively, and were published in THE LANCET on Feb. 15th and 22nd.

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2. *Control of the hæmorrhage.*—In most of my cases I have tied the external carotid artery so as to have the seat of the primary tumour free from bleeding, and as regards this point the result has been extremely satisfactory. In none of the cases had I to tie or clamp any vessels with the exception of one or two veins. Practically no blood was lost, and the area of the operation being more or less bloodless one could remove the disease with precision and feel pretty sure that one was cutting wide of it in all directions. The control of the bleeding in this way is of the greatest importance from the point of view, on the one hand, of the immediate danger of the operation—namely, the entrance of blood into the air passages—and, on the other, of the radical removal of the disease, but there are very serious objections to it, and I doubt if it is an advisable practice as a general rule. Working so much with aseptic wounds as one does nowadays one is apt to forget that there is such a thing as secondary hæmorrhage, and that where a wound becomes septic ligatures around large vessels very commonly ulcerate through, and then the main obstacle to hæmorrhage is the clot in the vessel. In the case of the external carotid artery little or no clot forms on the proximal side of the ligature, and, therefore, if it separates too soon there is practically no barrier and bleeding is very apt to occur. Hence it has happened that in most of the cases in which the external carotid artery has been tied severe and sometimes fatal secondary hæmorrhage has occurred from the artery. It was partly with the view of avoiding this risk that I divided the operation into two stages in Case 84, and in that instance there was no trouble whatever with the ligatured artery, and the result as regards hæmorrhage during the second operation was perfectly satisfactory. Whether this division of the operation into two stages is a good thing I shall discuss by-and-bye; it certainly gives us a means of avoiding secondary hæmorrhage from the ligatured external carotid artery, and at the same time gives us a bloodless wound. Failing this division of the operation into two stages I am inclined, much against my will, to give up the preliminary ligature of the external carotid artery in most cases, and either tie its branches or control the bleeding by temporary compression of the artery during the removal of the tumour. That, however, introduces another problem—namely, division of the lower jaw, for without that, where the disease is situated in the tonsillar region, one might have difficulty in getting proper access to the bleeding points, while I think it is an advantage if possible not to interfere with the jaw. Where, however, for any reason the jaw has been divided one can get good access to the bleeding points with previous ligature of the artery.

3. *The removal of the glands.*—The remarks made with regard to the removal of the lymphatic area in cases of breast cancer apply with equal force to these cases. It is seldom indeed that no enlarged glands can be felt, and in most instances they are of very considerable size. Whether glands are felt or not, however, the lymphatic area ought to be cleared out, and, as I have already said, one of the great advantages of the cervical region is that a very large glandular area is accessible, and not only can a large portion be cleared out at the time of the operation, but also glandular recurrences beyond the anterior triangle, if seen early, can be freely and hopefully dealt with. Most surgeons look on the presence of enlarged malignant glands in the neck—unless they are quite small and non-adherent to the vessels and only one or two in number—as a contra-indication to operation in these and in tongue and laryngeal cases, or, at any rate, as a very grave complication. For my own part, I do not at all agree with this view unless the glandular enlargement is very extensive or adherent to a variety of structures in the neck and not merely to the sheaths of the vessels, and I see no contra-indication to operation in their presence; on the contrary, I think the operation will be more thoroughly done and the patient will have a better chance of recovery and cure if enlarged glands are already present: for, in the first place, where the glands are already enlarged it is much more easy to remove the whole glandular area in one mass than it is where there are no enlarged glands to be felt; and, in the second place, the presence of enlarged glands in the anterior triangle renders it imperative to remove the neighbouring lymphatic area, especially that under the sterno-mastoid muscle, so that if glandular recurrence subsequently takes place it will in all probability be in the posterior triangle—that is to say, in a part which is easily accessible for future operation. Where there is no noticeable enlargement of the glands, on the other hand, it is a very difficult matter to take away all the glands and fat in the anterior triangle, while one is very apt in an extensive operation to leave the material under the sterno-mastoid muscle alone, and yet the glands in that situation are very early infected. Where an attempt has been made to remove this lymphatic area, and where it has not been successful and glandular recurrence subsequently takes place in the anterior triangle, we have in the second operation to deal with glands lying in scar tissue, and their subsequent satisfactory removal is a very difficult and sometimes almost impossible matter. These statements are not in any way theoretical, but are founded on considerable experience in cancer of the tongue and other regions in this neighbourhood, and also on a very extensive experience of radical operations for tuberculous cervical glands where the conditions as regards operation and recurrence are very much the same. After the preliminary tracheotomy the next step, then, in the operation is the exposure of the anterior triangle and the thorough separation of the fat and glands; and through the same wound the external carotid artery and its branches can be tied or controlled. For this purpose the best incision is one running along the anterior border of the sterno-mastoid muscle, from the mastoid process above down to the middle of the thyroid cartilage. The skin incision cannot be too free; the usual mistake that is made is to try to remove the glands through too small an opening, and we must remember that we have not only to take away the enlarged glands in the anterior triangle, but that we must also be able to lift up the sterno-mastoid muscle and remove all fat and glands behind it, especially towards the upper part. In the first instance the edge of the sterno-mastoid muscle is exposed, and the skin and fat in front of the incision are turned well forwards; in the next place I divide the deep fascia at the lower part of the incision and expose the internal jugular vein. It is very seldom, if the glands have attained any size, that they are not adherent to the sheath of the vessels, and therefore the anterior part of the sheath must be removed; indeed, where adhesion to the sheath is at all extensive (and, in fact, this is so in most cases of malignant glands) it is well to tie the internal jugular vein in two places at the lower part, divide it, and then peel it up along with the sheath and the mass of glands in front of it. In this way one can make a much better clearance of the anterior triangle than in any other; the lingual and other branches of the vein must of course be also tied, and the upper end can be readily ligatured close to its exit from the skull. As the mass is peeled forward the deep fascia is divided in front and behind, care being taken with the spinal accessory nerve, which usually divides the glandular enlargement into two parts. In none of my cases have I found it actually involved in the growth, and usually without opening the diseased glands they can be separated sufficiently to disentangle the nerve. Next, by the aid of a curved blunt instrument all the fat and glands must be detached from underneath the sterno-mastoid muscle right up to the mastoid process and well into the posterior triangle, and this material peeled off so as to leave the deep muscles clear. I consider that this is a most important thing to do, for recurrence so frequently takes place under the sterno-mastoid muscle, and it is almost impossible at a second operation to make sure of removing all the disease. With regard to the removal of the jugular vein, I may say that it need not give rise to the least anxiety; it does not add anything whatever to the danger of the operation, and I have also often had to do it in cases of operation for tuberculous glands without any harm resulting. I have never seen reason to regret having taken it away, but I have more than once regretted that I had not done so, recurrence having taken place in small glands which had been left attached to the sheath and overlooked, but which would have been removed if the vein, sheath, and everything in front of it had been taken away in the manner above described. Besides, I think that there is another great advantage in removing the vein in these pharyngeal cases, for if a septic thrombus should form in one of the small veins about the wound—as may very likely happen—it cannot get any further, and I have been much surprised at the small amount of septic disturbance in my cases.

In connexion with the removal of the glands there is one other point to which I may here refer—namely, the advisability of dividing the operation into two stages done on different days, in the first instance removing the glandular mass and a week or ten days later attacking the primary disease. I did this in two cases, and the plan has advantages as well

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as disadvantages. The reasons which induced me to do it in these two cases were, in the first place and chiefly, that the patients were weakly and that both the primary disease and the glandular mass were extensive, so that I feared the shock if the whole operation were done at one time. A second reason was that Case 38 had just previously died from hæmorrhage from the external carotid artery, and I thought that the risk of this would be considerably diminished if the end of the artery, lying in an aseptic wound for some days, were to become buried in new tissue. The third possible advantage of performing the operation in two stages is that the planes of the cellular tissue in the neck would become more or less sealed by organising tissue before being exposed to the septic influences from the mouth. The last is a point on which I do not lay much stress, but the other two points are important. Against this division of the operation into two stages there is, however, one very serious objection—namely, that after removing the glands open lymphatic vessels are left which may contain or convey cancerous material to the newly made wound and thus infect it before the second operation, and this infection being microscopic could hardly be eradicated unless possibly by painting the raw surface with a strong caustic. Case 84, in which I divided the operation into two stages, is the only one in which there has been a local recurrence, and in that case the recurrence was almost immediate and yet when we had finished the operation, so far as we could judge we had cut well wide of the growth in all directions, and there was no trace of any disease to be seen. Here I am much inclined to think that there had been an infection of the wound from the divided lymphatics, and so strongly am I impressed with this risk that I would not as a rule divide the operation into two stages unless under exceptional circumstances, such as great weakness on the part of the patient, or possibly in some cases where I thought ligature of the external carotid artery would be very desirable, and if I were to do so I would thoroughly sponge out the reopened part of the old wound with undiluted carbolic acid.

4. *Access to the primary disease.*—There are many ways in which access has been obtained to the tonsillar region, but it is unnecessary for us to discuss them all. The essential point centres round the question as to whether it is necessary or not to divide the lower jaw; and as regards this we have again two points for consideration—namely, whether it is sufficient to divide the lower jaw as in von Langenbeck's operation, or whether it is not better to remove the ascending ramus altogether as in Mikulicz's plan. Division of the lower jaw or removal of the ascending ramus are, of course, procedures which it is desirable to avoid if possible. In the first place, the division of the bone must add considerably to the septic risk by leaving a compound fracture in a septic wound, and it also must add to the shock. At first sight this statement seems to be in opposition to the facts as shown by Table III., where the mortality after division of the jaw is 26 per cent. as compared with 35 per cent. where the jaw was not divided; but in the latter case the numbers are a good deal smaller, and four of the seven deaths were due to hæmorrhage, other two also occurred in connexion with ligature of arteries, and the seventh from post-operative mania, so that in none could the retention of the lower jaw be held responsible for the result. In the second place, the divided ends of the bone have in several instances failed to unite and a false joint has been left. Not that this is always a disadvantage, for where the disease involves the mucous membrane in front of the fauces, between the upper and lower jaws, the subsequent contraction of the wound is very likely to lead to more or less closure of the jaws, which, however, does not cause any very great inconvenience if there is a false joint in front. And, lastly, necrosis of the divided ends of the bone has more than once occurred. On the other hand, there are great advantages to be gained by division of the jaw, and in some cases it is absolutely necessary. When the jaw is divided in front of the masseter and the two parts pulled aside, especially after division of the posterior belly of the digastric and the stylo-hyoid muscles and with a skin incision running from the angle of the mouth to the upper part of the oblique incision in the anterior triangle, the whole region of the tonsil and side of the pharynx is completely exposed to view, and can be dealt with as precisely as if one were operating on a cutaneous surface; and if this is done there is of course no necessity for ligature of the external carotid artery, the bleeding points being easily secured. Where the disease involves the periosteum over the jaw, necessitating removal of a portion of it or of the ascending ramus, the view obtained is still more perfect. As regards the removal of the ascending ramus of the jaw, if the angle is also taken away the functional result is bad, the jaw being pulled over to that side and the lower teeth no longer meeting the upper, consequently the patient cannot masticate solid food. Mikulicz has overcome this difficulty to some extent by dividing the ascending ramus above the angle and only removing that part, and he states that in his cases the functional result is excellent, while a good view is obtained and there is no trouble from closure of the jaws as the result of contraction of the wound. With regard to this question of dividing the jaw I would, however, point out that a marked increase in the space is obtained simply by dividing the posterior belly of the digastric and stylo-hyoid muscles. After this is done the jaw and the larynx can be pulled forward on that side to a very considerable degree. As I have already said, however, no two cases resemble each other and the methods must be varied in each instance. In my opinion the only constant incision is the oblique one, in order to get access to the glands and to free the vessels so that they can be pulled out of the way when the primary mass is being dealt with. Any further incisions that are made will vary according to the necessities of the case. As regards sub-hyoid pharyngotomy—that is to say, division of the thyro-hyoid membrane close to the hyoid bone—I do not think that there is any particular advantage in that in most cases. As I have already pointed out, one ought to open the anterior triangle freely in order to remove the glands in all instances, and one of the chief objects of the sub-hyoid pharyngotomy as opposed to lateral pharyngotomy is to save the superior laryngeal nerve. According to some writers this cannot be done where the sub-hyoid opening has to be extensive, though that is denied by others who have succeeded in avoiding a division of these nerves, but, as Case 112 shows, this nerve can also be spared in the lateral operation, and I believe one can get better access to the region of the epiglottis and the side of the pharynx and base of tongue by the lateral than by the sub-hyoid method. In my case, by an incision along the hyoid bone in addition to the usual oblique incision and removal of the great cornu, I was able to take away the whole epiglottis and the back part of the tongue quite satisfactorily. As to the method of removing these growths it must be done by scissors or the knife and they must be taken away in one piece. I do not think the result is at all satisfactory where the galvano-cautery, or the thermo-cautery, or the écraseur is employed. It is of the utmost importance to be able to examine the cut surface in its natural state so as to be quite sure that all the disease has been removed, and this cannot be at all made out if we have a burnt or a crushed part to look at. Besides, if a burnt surface is left a slough must separate, and bleeding is then very apt to occur, and in several of the cases in the accompanying list this has actually taken place.

5. *Treatment of the wounds.*—These cases are not, of course, amenable to aseptic treatment, but that is no reason why one should not be as careful as possible not to introduce any fresh septic material, and I am, therefore, as careful about the disinfection of the skin, instruments, hands, &c., as if the wound could be kept aseptic, and I have been surprised at the remarkable freedom from any general or marked local sepsis in the majority of my cases. It is very much the fashion to rub in iodoform and to plug these wounds with iodoform gauze, but I am not a great believer in the virtues of iodoform as an antiseptic and cannot attribute the absence of sepsis to its employment. Sir Joseph Lister recommends the application of a 10 per cent. watery solution of chloride of zinc to the wound immediately after the operation, and no doubt it is useful. I believe, however, that the best safeguards against septic troubles are the avoidance of fresh infection at the time of the operation, the free drainage of the cavity, and possibly, as I have already hinted, to some extent the removal of the internal jugular vein. As a preparation for these operations it is most important to see that the teeth are repeatedly and thoroughly scrubbed and to order the patient to use a frequent gargle of pretty strong Condy's fluid or sanitas. After the operation I have usually packed the wound for twenty-four hours with cyanide gauze powdered with iodoform, so as to stop the oozing of the blood and to prevent the surface becoming covered with clots which would decompose. This is withdrawn on the day after the

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operation and is not reintroduced, but as soon as the patient can manage it he is instructed to frequently fill his mouth with weak sanitas or Condy's fluid and let it run out of the tube. After the operation the skin incisions are stitched up and a large drainage-tube is fixed at the most dependent part of the wound and passing freely into the pharynx. This tube is left untouched for two days, and is afterwards taken out once or twice a day and washed in 1 to 20 carbolic acid before being reintroduced. I generally keep it in for about ten days altogether. Free drainage of the wound is a point of paramount importance. I think that the remarkably smooth progress of the naso-pharyngeal cases was due to the ease with which the discharges were able to flow away from the wound; and in these, as well as in the other cases where the larynx is not touched, I arrange very soon for the patient to be propped up more or less completely in a sitting posture. As an external dressing I use cyanide gauze, which is as easily employed as anything else and which has the advantage of arresting the decomposition which is going on in the discharges which pass into it. I have already referred to the tracheotomy tube and need not say anything further about it. The feeding of the patient is, of course, a point of great importance. Difficulty in swallowing naturally varies in different cases according to the extent of the operation and the parts removed. In severe cases, where a great part of the pharynx has been taken away, the stomach-tube must, of course, be used, and I generally leave one in at the time of the operation for three or four days and then pass it whenever necessary, taking care that it glides along the healthy side of the pharynx and does not impinge on the granulating surface. In one of the cases (No. 26) the patient began to swallow about the second day, using a plan suggested by Dr. Semon—namely, hanging the head over the side of the bed with the sound side downwards and then taking the fluid into the mouth. As a result it ran down the sound side and the patient was able very soon to manage quite well. In other cases we have had to use the stomach-tube for a considerable time. In Case 38, where a portion of the tongue, tonsil, and pharynx were taken away, one of the most extensive of the operations, the patient began to try to swallow about the tenth day, but he was not able to swallow a sufficient quantity to dispense with the feeding-tube till about three weeks after the operation. Much depends also on the closure of the sinus left by the drainage-tube, but the finger placed over that while swallowing is going on is usually sufficient to prevent the fluid running out. In the case where the epiglottis and the base of the tongue were removed, it was seven days before the patient could swallow at all, and between three and four weeks before he could swallow comfortably. Israel states that in the epiglottis operations the rapidity with which the power of swallowing is regained is much expedited by stitching back the tongue to the mucous membrane over the lower part of the epiglottis, which he preserves, if possible. I did not do this in my case as I had to remove the epiglottis completely, and I think that in few instances of carcinoma of the epiglottis can it be advisable to leave any of the mucous membrane behind. In all of these cases I have combined rectal alimentation with the other for some time.

6. *Results.*—I must now say a few words about the results as shown in Table III. This table has been pretty thoroughly analysed at the end, but some explanation is needed, as the bare figures do not at all convey an accurate impression of the results. We must also consider the results in the three great groups separately. In Group I. we have operations of varying severity, some quite small but the majority of considerable extent—some indeed, such as my case of sarcoma of the tonsil (No. 22), very extensive; but the great point of distinction between this group and the next is that the wound in the throat did not communicate with a wound in the neck. Group II. comprises the cases which essentially belong to this subject, and in it are included all the cases where the wound in the throat communicated with a wound in the neck. This group I have broken up into three divisions according to the seat of the disease—viz., (1) the upper part of the pharynx with the tonsillar region as the central point; (2) disease at a lower level, in the pharynx proper; and (3) cancer of the epiglottis. In Group III. we have to do with a very much more serious condition where the disease is not confined to the pharanx, but has spread on to and involved the larynx, or *vice versâ*. I shall in the first place consider the question of mortality, and then the results as regards cure or benefit, and as regards function.

a. Mortality.—In Group I. there were 23 cases with 2 deaths, or 8·6 per cent. mortality, one death being from pyæmia (No. 13), and one from exhaustion after hæmorrhages and recurrence of the disease (No. 9). As regards risk to life, therefore, cases of this class are quite satisfactory. In Group II. also the mortality is less than one would expect considering the great severity and extent of these operations the total result being 91 cases with 27 deaths, or a mortality of 29 per cent. Of the divisions of this group the highest mortality is found in B, where the disease affected the pharynx at a lower level than the tonsillar region, these cases numbering 15 with 6 deaths, or 40 per cent. mortality. The smallest mortality is in Division C, cases of removal of the epiglottis, where there was 1 death in 6 cases, or a mortality of 13 3 per cent. In the main division of this group A, the tonsillar cases, there were 20 deaths in 70 cases, or a mortality of 28 per cent. Considering the nature of the operations this cannot be regarded as an excessive mortality, but if we look into the causes of death we shall find that some of these should be avoidable in future. Thus 6 of the 20 cases died from hæmorrhage (Nos. 24, 25, 38, 41, 51, and 53), 4 of these after ligature of the external carotid artery, 1 of the common carotid, and 1 from hemiplegia after ligature of the common carotid for hæmorrhage; a seventh case also died from hemiplegia from ligature of the internal carotid at the time of the operation. In my case also (No. 40) the ligature of the carotid had much to do with the patient's death, and possibly this may also have been the case in No. 39. Thus in 8 or 9 of the 20 deaths the cause lay in interference with the large vessels. This is a valuable lesson, and it seems to me that in this respect the mortality in future ought to be distinctly reducible. Of the 20 deaths 8 or 9 had to do with septic trouble, chiefly septic pneumonia. How far we can reduce this cause of death in future it is difficult to say; preliminary tracheotomy is not as I have already pointed out, an absolute safeguard against this accident. In the total of 91 cases belonging to Group II., at least 15 deaths were due to septic causes equal to 16 4 per cent. Although this occurrence is, I fear in some cases unavoidable, still I think much can be done to prevent it, and I look forward to a reduction of the mortality from this cause also. On the whole, therefore, I believe that if the lessons derived from a study of the work done in this department of surgery are borne in mind there will be a marked reduction of the mortality in future. One difficulty in improving the results, both as regards mortality and also as regards the eradication of the disease, has been the limited experience of individual surgeons owing to the small number of cases operated on and to the hopeless view which is generally taken of them by those who see them first. I was much struck with an expression used in one paper with regard to Billroth's great mortality after pylorectomy that it represented the "Lehrgeld" or educational expenses of the operation. In these pharyngeal operations, individual surgeons have had so little opportunity of operating that their efforts may be looked on as altogether "Lehrgeld," and we have not yet got beyond the educational stage. I hope that the lessons derived from a study of this table of cases which I have collected will enable us in future to pass the educational period; and in that case it is certain that the mortality will fall, and the success will increase in these as it has done in other operations. Even with the present mortality, however these operations are fully justified, and occupy as good a position as many others which are looked on as perfectly legitimate procedures. When we come to Group III. we find a much more serious state of matters, for here of 58 cases 32 died, giving a mortality of 55 per cent. Of these the chief cause of death was septic pneumonia, which led to 19 of the 32 deaths—that is to say, of the total number operated on 32·7 per cent. died from septic pneumonia. How far this might be reducible in future is a difficult question, but I think considerable improvement would follow from freeing the divided end of the trachea and stitching the skin all round it so as to isolate it altogether from the pharynx.

b. Ultimate results.—In the whole list of cases there are only 4 which came under the class cured—that is, where three years have elapsed without recurrence, but more may have now passed the limit, for as a rule the cases have been published soon after the operation and there are no further notes of them. Thus it happens that of the 114 cases in the first two groups, no fewer than 24—or, including operations after recurrences, 30—are marked H ?—that is to say they recovered from the operation, but the further history at any rate after six months, is not recorded. Some of these may have been cured, or at any rate a considerable time

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may have elapsed before recurrence. Similarly 14—or, including operations after recurrences, 17—are marked H—that is to say, a considerable period had elapsed since the operation without recurrence. It is therefore very difficult to arrive at definite conclusions as to the ultimate result in these operations, but I have attempted to do this by estimating the cases which were benefited and those which were not, the estimate in both instances, especially in those benefited, showing, however, the worst result. Under those "not benefited" I have placed those which died or recurred early; under "benefited" those which recurred late or which remained well at the last note, more than six months after the operation. Those marked H? do not come under either group, but most probably, if the further result were known, they would decidedly increase the number of those "benefited." Hence, as I say, the latter class is certainly considerably under-estimated, especially in Group II. Letting it stand so, however, we find, as summarised at the end of the table, that in Group I. 30 per cent. were not benefited, 52 per cent. were benefited, and 18 per cent. remain which we cannot classify; in Group II. 54 per cent. were not benefited and 17 per cent. were, while as many as 29 per cent. have to be left out of consideration; in Group III. 81 per cent. were not benefited and 12 per cent. were, while only 7 per cent. are unclassified. As I have already said, I feel sure that with this accumulated experience before us the mortality can be considerably reduced, certainly in the second group, and possibly also in the third; while there is undoubtedly much scope for greater care and thoroughness in operating, more especially as regards the glands, some of the operations, as will be evident, having been very imperfectly performed. Hence I look forward, not only to less mortality, but also to distinct improvement as regards recurrence. As regards Group I. there can be no question as to the advantage of operation, but with regard to it I would point out that several of the cases would have had a much better chance had the operation been more extensive and had they thus come into Group II.; and in several of those benefited the result was due more to good luck than to good management. I hope the favourable results shown in this group will not induce surgeons to treat cases in this way which ought to be more thoroughly dealt with. As regards Group II., I think the result is encouraging, for a mortality of 29 per cent. and a mortality which is evidently reducible is not such as to deter us from giving these patients a chance. Here the present results are that 54 per cent. were not benefited, but that is not more than in many statistics of breast cancer and not so much as in rectal and intestinal cancer, which are generally recognised as suitable cases for operation. Of these cases the most unfavourable are those where the disease has spread on to the tongue, and it is in these instances that most cases of septic pneumonia have occurred, the numbers being 36 cases where the tongue was involved, with 12 deaths or 33 per cent., of which 7 were from septic pneumonia; 4 of these 12 deaths were, however, from hæmorrhage and were probably avoidable. It is where the tongue is extensively involved in addition to the pharyngeal disease that we come, I think, to the limits of these operations. I do not feel, however, able at the present time to lay down definite limits beyond which it is not advisable to proceed. So much depends on the experience and the personal equation of the individual operator. Almost all my cases have been condemned by other surgeons as quite inoperable, and I believe all would have been so condemned had they been seen, and yet not only have three done well, but even two out of the three who died were very nearly successes, and instead of discouraging us give us hope for the future. When, however, we come to Group III. we have a very different state of matters, for not only is the mortality very high (55 per cent.), but the proportion of those who cannot be reckoned as having got any benefit is very large (81 per cent.). I think, therefore, that in most of these cases the patients will be better off if left alone, at the same time in a small proportion (12 per cent.) benefit was obtained, and therefore I would not necessarily exclude all these cases from operation, but would leave it to the surgeon to judge in the individual case whether an operation is feasible or not. As to the functional result in the first two groups, it is for the most part quite satisfactory. It is remarkable how much one can take away in the tonsillar region without causing any great contraction or inconvenience; on the other hand, where pharynx and larynx are both removed life is hardly worth living except in rare instances—certainly it is not in the case of a poor patient who would have to spend the remainder of his days in the workhouse.

3. Intestinal Cancer.

Time fails me to go into the subject of intestinal cancer, and the points I wish to bring out will be sufficiently evident if I confine my remarks to the rectum. Up till now I have been speaking of cancer in parts where practically the only object in operation was with the view of curing the disease, but here we have a region where, on the one hand the conditions as regards cure are not so favourable, while on the other alternative procedures have to be considered which, while they do not aim at cure often prolong life markedly and, what is more, remove a great deal of the agony of the disease. In cases of intestinal cancer we have to do with a disease which, as elsewhere, varies much in malignancy, but is, on the whole, less malignant than cancer in the situations which we have been considering. More especially is this true as regards the glandular and metastatic deposits, in which the disease sometimes progresses very slowly, and if only the risks attending the situation of the primary disease can be avoided the patient may in the less malignant forms live for a very considerable time. In accordance with this lesser malignancy recurrences after operation are not uncommonly late, a considerable proportion taking place after several years. Thus, in Czerny's statistics 10 were well after three years, but 4 of these (40 per cent.) subsequently showed disease. Metastases are also late in occurring, and as regards the latter point Iversen states that in 47 post-mortem examinations of long-standing cancer of the rectum (he does not say of how long standing) he found 21 in which there were no metastases. As regards the hope of cure, however, the glandular area is not nearly so accessible as in the breast or the throat, and, therefore, when the disease is of the rapidly advancing form there is little chance of getting beyond it by operation. Hence the radical operation cannot be so thorough, and were it not for the fact just mentioned as to the lesser malignancy of the disease the chances of benefit by removal of the disease would be very slight. Further, the operations necessary for the removal of the primary disease, more especially where it is high up, are accompanied by a considerable mortality. And lastly, the functional result after operation often leaves much to be desired, both as regards continence on the one hand and stricture with its troubles on the other. On the contrary, we have in colotomy an alternative procedure which removes the immediate risk to life (obstruction) and thus prolongs life often very considerably while it also rids the patient of much of his pain and discomfort by relieving the impending obstruction and by getting rid of the inflammatory condition at the seat of disease which not only adds much to the patient's discomfort but also no doubt increases the rapidity of growth of the disease. Thus we have in these cases a choice of procedures, and it is no longer as in the former instances a question of a radical operation or nothing; and further, as the palliative procedure offers much relief, and as only a small proportion of radical operations give any hope of permanent benefit, there is not the same urgent need for the radical operation. Hence the question of selection of cases and our mode of advising the patient is much altered. We shall find that in a large proportion of cases the hope of benefit from a radical operation is so very slight that we can without hesitation exclude them from the radical procedure and at the same time help them much by colotomy; and thus the cases in which the choice of an operation has to be left to the patient are comparatively few. We can in most instances say definitely that the case is suitable for the one or the other procedure, there are only a few on the border line that we need leave to the patient to decide.

I cannot enter here into the question of the operative procedures, but I may say that while the perineal operation is suitable in some cases, in the majority it is best to employ one or other of the methods which give good access to the part from behind, such as Kraske's sacral operation, or one of the modifications of it. Where the disease is situated pretty high up, the favourite plan is, after removal of the affected portion, to try to unite the upper and the lower part and obtain again continuity of the canal. In some few cases this has succeeded very well, and the patient has had more or less perfect control over the bowels, but in most instances there has been incontinence more or less complete; in some fistulæ have been present in addition, and in many an amount of stricture has resulted which has been a source of great suffering to the patient. In some cases, also, where there has been much

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tension, the bowel has given way and extravasation of fæces has occurred and led to fatal cellulitis or peritonitis. If there is incontinence in these cases the anus is a very difficult situation to keep clean or to fit with any suitable apparatus, hence where there is such tension I think it is much better to bring the end of the rectum out in the sacral region, where it can be much more easily kept clean, and in that case one should remove the anal portion altogether so as not to leave a canal to infect the deeper part of the wound. In the last case on which I operated I removed the whole of the lower part of the rectum and applied a ligature around the bowel just above where it was cut off, brought this ligatured portion out in the sacral region, stitched it to the skin, brought together the wound, and left the ligature around the bowel, and in this way for four days we had an aseptic wound. It was not until the end of the fourth day that the ligature cut through and a communication formed with the bowel; and though a small part of the wound in the neighbourhood opened up and suppurated, the greater portion, and especially all the deeper part, remained healed. Where the anus is brought out in this situation some advantage as regards continence is gained by acting on Gersuny's suggestion to rotate the bowel through an angle of 90°. Let us contrast the results after colotomy with those after excision. At one time colotomy was of itself an operation with a considerable mortality, and when performed during an attack of obstruction it is so still. At the present time, however, especially as regards inguinal colotomy, the mortality is quite insignificant when performed apart from obstruction, probably not more than 2 or 3 per cent., if indeed so much. We may, in fact, disregard the primary mortality of colotomy and study the results as regards prolongation of life. There are not many good statistics on this point. Erckerlen's old statistics give 45 cases surviving the operation, of whom 22, or 49 per cent., died within a year and 23, or 51 per cent., lived more than a year, 6, or 13 per cent., living over two years. Bryant's statistics are much more favourable. Of 70 cases operated on without obstruction, only 18, or 23 per cent., died within the year; 26, or 34 per cent., died within twelve and twenty-four months; 16, or 22 per cent., died between twenty-four and thirty-six months; and 12, or 17 per cent., were still alive when he wrote. Of 55 which survived the operation for obstruction, 18, or 32 per cent., died in the first year; 19, or 34 per cent., in the second; 12, or 21 per cent., in the third year; and 6 were still alive, 3 of them having lived from two and a half to five years after the operation and one of them being alive after six years. Taking the whole 125 cases together, we find that 36, or 28 per cent., died during the first year; 43, or 34 per cent., died during the second year; 28, or 22·4 per cent., died later than two years; and 18 were still alive when he published, some of them also having lived more than two years. These results are, however, remarkably favourable, much more so than any other published estimate. The explanation may, in part at any rate, be that at the present time in a good many of these cases the disease would have been excised, and only the more advanced and malignant cases would have been subjected to colotomy. At the present time, therefore, cases treated by colotomy do not live on an average nearly so long, most of them dying during the first and second year. In a case unsuitable for the radical operation, however, I performed colotomy nearly five years ago, and the patient is still alive, although in the interval a small communication has formed with his urethra.

Let us turn now to the results of the radical operation. The mortality varies considerably between the perineal and sacral operations, being naturally higher for the latter. König's total mortality is 38 per cent., Billroth's 34 per cent., Kocher's 28 per cent., Albert's 18 per cent., Iversen's estimate as regards the Kraske operation 25 per cent., and Czerny's with the perineal operation 5·4 per cent, with the sacral operation 19·4 per cent. So far as one can judge from a large number of reports, the mortality after the perineal operation seems to be about 8 per cent., after the sacral operation from 18 per cent. to 20 per cent., but the results vary much in the hands of different surgeons, probably in accordance with the selection of cases and the after-treatment of the wounds, and in both instances it can in all likelihood be somewhat reduced in the future. As matters stand, however, we have to contrast colotomy in which the mortality is practically *nil* with excision where the mortality varies from 5 to 20 per cent.

Let us next consider the results, and I shall not weary you with elaborate statistics, but take as examples three papers in which the cases are detailed, and which, therefore, I have been able to control and work out myself. I had intended to inflict another table on you, and my friend, Dr. Macan, has spent a good deal of time in hunting up results for me, but as I found that I had no time to go at all fully into the matter, I gave up the project. 1. Kocher's statistics as given by Arndt show 35 cases of radical operation with 10 deaths, a mortality of 28 per cent. Excluding the last three years, as we did in the breast, we have 25 cases with 7 deaths (28 per cent.), 11 recurrences (44 per cent.), and 7 without recurrence (28 per cent.). In 4 of the recurrent cases, however, marked benefit was obtained, for two were again operated on and remained well three and eight years subsequently, while in 2 the recurrences were very late, three and five years respectively. The 7 which did not recur had been free for $3\frac{1}{2}$, $5\frac{9}{12}$, $6\frac{7}{12}$, $8\frac{1}{2}$, 13, $16\frac{1}{2}$, and $16\frac{1}{2}$ years. To summarise this result 14, or 56 per cent. did not benefit by the operation, while 11, or 44 per cent., did benefit to a marked degree. 2. Take Czerny's statistics as given by Heuck and Loewinsohn (I do not include Schmidt's report, because most of his cases are too recent). These statistics do not include any sacral operations. Forty-one cases, 3 deaths (7 per cent.), 21 early recurrences (51 per cent.), 8 late recurrences from seventeen months up to five and a half years (16 per cent.), 4 well over six years (9 per cent.), and 2 died within the first year without recurrence. Thus there was no benefit in 24 cases (58 per cent.), and marked benefit in 14 (34 per cent.) 3. König's statistics as given by Hildebrand represent perineal and sacral operations, and comprise 54 cases with 21 deaths (38 per cent.) Leaving out the last three years, we have 34 cases with 17 deaths (50 per cent.), 6 early recurrences (17 per cent.), 5 late recurrences (12 per cent.), three remained well for from three and three-quarter to five years (8 per cent.), and the remainder cannot be classified. The total is 23 not benefited (67 per cent.) and 8 benefited (23 per cent.). Of 5 apparently well for three years, 2 subsequently recurred (40 per cent.). We may say, therefore, that of these 100 cases 61 were no better off than if they had been left alone and not so well off on the whole as if they had had colotomy done, for 27 of them died at once. These results are not in any way better than—indeed, not so good as—in the pharynx operations. On the other hand, 33 gained advantage, and most of them very marked advantage, from the radical operation, much greater than colotomy could have given. From this we see that of every 100 cases subjected to the radical operation in Germany only about 35 are really likely to be benefited by the operation, and 60 would be better off with colotomy—for in Germany the radical operation is carried to an extreme extent, adhesion to bladder and prostate not even forming a contraindication; indeed, Genzmer goes so far as to advocate the operation, even though there are already metastatic deposits in the liver. As, even in Germany, from 20 per cent. to 25 per cent. of the cases applying for relief are not deemed fit for the radical operation, we may say that, taking all patients together as they come to the surgeon, not more than 20 per cent. will be benefited by the radical operation; the remainder will do better with colotomy. If we study the successful cases it appears that in the great majority of instances where real benefit was derived from the operation the disease was low down and was not adherent to surrounding structures; the cases of success as regards prolonged freedom from recurrence where the disease was high up or adherent to surrounding structures such as the prostate are quite few in number. In this matter I quite agree with the tendency of the English school of surgery as opposed to the German, and would exclude from the radical operation cases of rapid growth, cases where the disease forms large masses in the intestine or is deeply ulcerated, cases where it has passed through the wall of the rectum and invaded surrounding parts as indicated by fixity, and rapidly growing tumours high up even though not yet fixed. In none of these is there any real prospect of cure or of marked prolongation of life. In the fixed tumours local recurrence is almost certain to take place early, and the last condition of the patient will be worse than the first. Where the tumour is rapidly growing glandular infection is widespread, and the chances of getting beyond the disease are very remote, while, on account of the rapidity of growth, the glandular disease and the metastatic deposits will soon end the life of the patient. In none of these cases is it worth while for the patient to run a considerable risk, for it is just in these cases that the mortality is highest, while in colotomy we have a means of relieving the patient's sufferings and of giving him as long a period of life with practically no risk.

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TABLE III.—OPERATIONS FOR MALIGNANT DISEASE OF THE PHARYNX COLLECTED, AS FAR AS POSSIBLE, UP TO THE END OF 1895.

GROUP I.—*Cases where the Disease was Removed from the Mouth, with or without Splitting the Cheek and with or without Tracheotomy, where, in fact, there was no Wound in the Neck communicating with the Mouth.*

α. Carcinoma.

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
1	Newman (1890): Malignant Diseases of Throat and Nose.	M. 65	Epithelioma of left tonsil, uvula, and posterior pillar of fauces, noticed 4 weeks. No glands.	Removed through mouth with thermo-cautery under cocaine.	Recovered	Still remains well, 6 years later; therefore cured. (Private communication.)
2	Wolff (1889): Berliner Klinische Wochenschrift, 1891, p. 401.	M. 45	Carcinoma of left tonsil and neighbouring part of velum and pharynx.	Head dependent. Removed from mouth. Half soft palate removed; tumour cut round and peeled out with finger.	Recovered	Well, 1½ years later.
3	Körte (1885): Referred to by Wolff as above.	M. 51	Carcinoma of left tonsil and soft palate.	Removed with head dependent.	Recovered	3 months later gland removed from right side of neck and 7 months later one from left side. Remained well till 6 years and four months after operation, when recurrence in glands above left clavicle. No local recurrence.
4	McIntyre (1891): Journal of Laryngology, 1893.	M. 60	Epithelioma of left tonsil and lower part of anterior pillar of fauces.	Removed with scissors through mouth.	Recovered	No recurrence 21 months later.
5	Watson Cheyne (1892).	M. 52	Epithelioma of left anterior pillar of the fauces spreading on to tonsil and towards tongue.	Clipped out	Recovered	Patient cannot be traced.
6	Newman (1891): Malignant Diseases of Throat and Nose.	M. 51	Epithelioma of tonsil and soft palate. No glands.	Tracheotomy, and 5 days later removal with electro-cautery through mouth.	Recovered	Still remains well, therefore cured (5 years). (Private communication.)
7	Lauenstein: Deutsche Medicinische Wochenschrift, 1888.	M. 65	Carcinoma of soft palate and upper part of anterior pillar of fauces.	Tracheotomy. Right cheek split, soft palate and anterior pillar of fauces removed.	Recovered. Cannula removed next day.	No further history.
8	MacEwen (1878): Quoted by Newman.	M. 55	Epithelioma of right tonsil, side of pharynx, and tongue.	Incision from angle of mouth to angle of lower jaw and tumour removed. No further details.	Recovered	Well, 12 years later. Cured.
9	Kendal Franks: THE LANCET, June 28th, 1884.	M. 45	Ulcerating carcinoma of left tonsil, soft palate, and base of tongue, with enlarged glands.	Cheek split. Tongue removed by galvano-cautery and then soft palate and tonsil by thermo-cautery. Gland removed later.	Hæmorrhage on 8th and 14th days. Death from exhaustion after two months. Recurrence in floor of mouth.	
10	Kocher (1886): Langenbeck's Archiv, vol. xlv.	M. 64	Carcinoma of the mucous membrane between the jaws, spreading on to soft palate, anterior pillar of fauces, and side of tongue. No glands	Removal, after splitting cheek, without performing tracheotomy or dividing jaw.	Recovered	Gland found and removed a fortnight later. No further history.
11	Weeks (1889): Transactions of the American Surgical Association, 1892.	M. 70	Epithelioma (?) of side of tongue, fauces, and left tonsil.	Cheek split and affected parts clipped out.	Recovered	Died a year later. No cause given. (? Recurrence.)
12	Watson (1894): New York Medical Journal, 1894.	F. 53	Epithelioma (?) of left tonsil and anterior pillar of fauces. Enlarged gland.	Freely removed by cautery knife. (? Gland.)	Recovered	Well, 3 months later.
13	Velpeau: Quoted from Stappert's Thesis, Das Carcinom der Tonsille, 1889.	M. 68	Epithelioma of tonsil and pharynx.	Ligature laid round common carotid, mouth opened, soft palate split, and tumour got out.	Died in 17 days from pyæmia.	

β Sarcoma.

14	McIntyre (1892): Journal of Laryngology, 1893.	F. 58	Sarcoma of left tonsil, anterior and posterior pillars of fauces.	Clipped out	Recovered	Recurrence in right tonsil 6 months later. No further operation.
15	Newman (1884): Malignant Diseases of the Throat and Nose.	F. 57	Spindle celled sarcoma of left tonsil. No glands.	Tracheotomy; removed through mouth piecemeal.	Recovered	Remained well 5 years; then developed round-celled sarcoma in right tonsil, and rapidly died.
16	Lediard (1887): THE LANCET, Nov. 23rd, 1889.	M. 62	Lympho-sarcoma of right tonsil.	Tracheotomy; tumour clipped out through mouth.	Recovered	Nine months later glandular recurrence removed. Well, a year later.

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TABLE III.—GROUP I.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
17	Michaux: Bulletins de l'Académie Médicale Royale de Belgique, 1886-87. Quoted by Bosworth: Diseases of Throat and Nose.	M. 45	Tumour (? sarcoma) involving left half of soft palate, and extending eto pharynx and nares. Observed for 4 months.	Excised through mouth. Recurred in 1 month, and then cheek split and growth with part of hard palate removed.	Recovered	Recurred in 2 months. Inoperable.
18	Conner (1838): New York Medical Record, 1889.	M. 40	Sarcoma of tonsil size of man's fist.	Cheek split and tumour enucleated.	Recovered	Recurred in 2 months, and died in 4 months after operation.
19	O'Hara: Australian Medical Journal, 1892.	M. ?	Sarcoma of left tonsil involving left half of soft palate and root of tongue. No glands.	Tracheotomy. Cheek split and tonsil pulled out and clipped away. Surrounding tissue destroyed with thermo-cautery.	Recovered	Remained well 4 years; then died, sarcoma of lung. No local recurrence.
20	Barker: Pathological Society Transactions, 1886.	F. 74	Lympho-sarcoma of right tonsil and gland.	Removed gland. Cut around tonsil with thermo-cautery and shelled it out. Removed nodule from tongue.	Recovered	3 weeks later second nodule in tongue removed. Rapid recurrence in glands, and died 6 months after operation.
21	Croly (1886): Journal of Laryngology, 1887.	M. 17	Round-celled sarcoma of left tonsil involving soft palate. Gland enlarged.	Growth excised through mouth and gland removed.	Recovered	Rapid recurrence in palate and neck, and death in 6 months.
22	Watson Cheyne (11/9/94): See Lecture II.	M. 43	Round-celled sarcoma of right tonsil, side of pharynx, soft palate, and lower part of naso-pharynx; glands.	Glands removed and external carotid tied; cheek split and disease removed partly from inside and partly from outside.	Recovered	Mass of glands removed 8 months later. Well 16 months after first operation. No local recurrence.
23	Gardner: Australian Medical Journal, 1892.	M. 62	Sarcoma of left tonsil, pillars of fauces, and up to soft palate; ulceration in central part.	Laryngotomy. Pharynx plugged, cheek incised from angle of mouth to masseter. Growth cut away.	Recovered	14 months later growth in axilla, but no local return.

GROUP II.—*Cases of Disease in the Pharynx where the internal wound communicated with an incision in the neck.*

A.—Where the disease was situated in, or in the vicinity of, the tonsils and extended thence to the neighbouring parts.

1.—Where the jaw was not divided. *a.*—No tracheotomy.

a. Carcinoma.

24	Polaillon: Gazette Médicale de Paris, 1885.	M. 37	Epithelioma of right tonsil, slightly on soft palate and base of tongue.	Ligature of lingual and right common carotid. Incision from angle of mouth to wound. Lateral pharyngotomy. Removal by galvano-cautery and thermo-cautery of base of tongue, tonsil, &c.	Died. Bleeding 1½ months after operation, and common carotid tied. Death in a few hours. There was local recurrence. Paralysis followed ligature of common carotid.	
25	Polaillon (1883): Gazette Médicale de Paris, 1886.	M. 65	Epithelioma of left tonsil, spreading on to soft palate and base of tongue.	Ligature of external carotid. Incision from angle of mouth to incision in neck. Removal by galvano- and thermo-cautery.	Died. Hæmorrhage on 14th day, and again on 16th, from external carotid; latter fatal.	
26	Watson Cheyne (13/10/94): See Lecture II.	M. 55	Epithelioma of left tonsil, anterior pillar of fauces, and soft palate, very large mass of glands extending under sterno-mastoid, and adherent to vessels.	Removal of glands with internal jugular vein. Ligature of external carotid. Lateral pharyngotomy. Removal of mass, partly from inside and partly from outside.	Recovered	Well, 15 months later.
27	Kocher (1881): Langenbeck's Archiv, vol. xlv.	M. 49	Carcinoma of right tonsil, soft palate, anterior pillar of fauces and side of tongue.	Cheek split and tumour removed by external and internal incisions.	Recovered	Recurred in a little over a year.
28	Thorburn (1889): Brit. Med. Jour., 1890.	? ?	Epithelioma of right tonsil and soft palate, of both alveoli and base of tongue. Gland in neck.	Removed by pharyngotomy.	Recovered	Recurred in palate 6 weeks later. Removal. Well 2½ months later.
29	Fowler: Journal of Laryngology, 1888.	F. 67	Carcinoma of left tonsil. Glands in neck.	Tied lingual and facial arteries. Opened pharynx by cautery, and removed tonsil. Glands shaved off carotid.	Recovered	Died, 8 months later, of gastric ulcer. Glandular recurrence in both parotid regions.

β. Sarcoma.

30	Wheeler: Dublin Journal, 1884.	F. ?	Spindle-celled sarcoma in right sinus pyriformis starting from stylo-hyoid ligament.	Lateral pharyngotomy. Removal of tumour piecemeal. No special arrangements for exposing the tumour.	Recovered	Recurred locally in 3 months. Further attempt at removal failed. Death from exhaustion.

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TABLE III.—GROUP II.—*Continued.*

No. of case	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
31	Cheever: Boston Medical and surgical Journal, 1869, p. 54.	M. 34	Sarcoma of tonsil (left), ulcerated. Glands enlarged.	Incision along border of jaw. Removal of glands Division of digastric, stylo-hyoid and stylo-glossus. Pharynx opened. Tumour removed.	Recovered after 31 days.	
32	Homans (1890): THE LANCET, Aug. 29th, 1891.	F. 59	Round-celled sarcoma of right tonsil.	Incision outside; tonsil clipped out from mouth.	Recovered	Well, 5 months later.
33	Raymond Johnson (1892): THE LANCET, March 18th, 1893.	F. 53	Lympho-sarcoma of tonsil and glands in neck.	Glands removed from neck. Pharynx exposed from neck. Ligature of external carotid. Tonsil clipped out.	Recovered	Recurrence in glands; removed a month later, and again 6 months later. No local recurrence.
34	Chavasse (1892): THE LANCET, June 10th, 1893.	? ?	Alveolar sarcoma of left tonsil; glands at angle of jaw. Thumb previously removed for sarcoma.	Oblique incision from ear to hyoid bone, connected with one from angle of mouth.	Recovered	No recurrence 14 months later.
			b. Tracheotomy.			
			a. Carcinoma.			
35	Kocher (1875): Deutsche Zeitschrift für Chirurgie, 1890.	M. 53	Carcinoma of left tonsil spreading on to soft palate and base of tongue; glands.	Glands removed first. Eight weeks later, removal of primary mass, including common carotid, great cornu of hyoid bone, posterior part of tongue, soft palate, tonsil, and side of pharynx.	Recurred immediately, and 4 weeks later second operation, followed by death from septic pneumonia.	On 6th day, after first operation, embolism of left retinal artery.
36	Charters Symonds: Brit. Med. Jour., 1888.	M. 45	Epithelioma of anterior part of tonsil, extending on to floor of mouth, cheek, and gum. Submaxillary gland affected.	Cheek split. Removal of tonsil, part of soft palate, pharynx and tongue, by clipping; gum peeled off.	Recovered	Recurred in 3 months, and again excised with part of jaw. Second recurrence and operation. Third recurrence and death.
37	Küster (?) (1884): From Meyer's Thesis, Beiträge zur Statistik der Zungen Carcinome, 1888.	M. 50	Carcinoma of back of right side of tongue, spreading on to pharynx up to the neighbourhood of the inferior maxillary joint; glands.	Gland removed. Cheek split. Removal of disease. Jaw not divided.	Recovered	Died of recurrence 2½ months later.
38	Watson Cheyne (12/6/95).	M. 44	Epithelioma of right tonsil, base of tongue, floor of mouth, soft palate, and side of pharynx. Glands.	Removal of glands and ligature of external carotid. Cheek split to masseter. Lateral pharyngotomy. Disease removed in one mass (part of tongue, tonsil, half soft palate, part of wall of pharynx).	Did well, and was able to be up and feed himself, when, on July 7th (25 days after the operation), there was a sudden hæmorrhage from the external carotid, which choked him before assistance could be obtained.	
39	Watson Cheyne (1/7/95).	M. 56	Epithelioma of tongue, tonsil, soft palate and side of pharynx on right side. Glands in neck.	As in former case (38), but in addition the internal carotid was firmly involved in the growth, and as the patient was very collapsed it was left for 4 days and then removed.	Went on well for 4 days, then removal of diseased internal carotid. That evening signs of septic pneumonia, and next day also of paralysis of left side, and death on sixth day.	
40	Watson Cheyne (23/7/95).	M. 55	Epithelioma of the posterior part of the right half of the tongue, tonsil, half of soft palate, side of pharynx and glands in neck.	Ligature of external carotid and removal of glands. A week later tracheotomy, upper part of wound reopened, and primary mass excised.	After the second operation patient suffered from post-operative mania, and it was a most difficult thing to feed or do anything with him. Otherwise he went on well till 8th day, no fever, &c. On 11th day slight hæmorrhage, common carotid tied by a colleague. Two days later complete hemiplegia on opposite side and ultimately death on the 31st day after operation. Softening of right part of brain and abscess in lung.	
41	Milligan (1892): Journal of Laryngotomy, 1893.	M. 49	Epithelioma of left tonsil, palatine arches, part of soft palate, and small piece of hard, posterior third of tongue. Glands.	Incisions along jaw from symphysis and oblique one thence to sterno-mastoid. Parts removed.	Died of hæmorrhage from common carotid on 27th day.	

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TABLE III.—GROUP II.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
42	Dupage (1895).	M. 52	Cancer of lower part of pharynx and œsophagus.	Sub-hyoid pharyngotomy and vertical incision. Pharynx divided above tumour and parts removed. Œsophagus sutured to skin.	Recovered.	
43	Dupage (1895).	M. 53	Epithelioma on right side of upper part of pharynx.	Tracheotomy, lateral pharyngotomy, removal of disease.	Died on tenth day of post-operative mania.	
	2. Where the jaw was divided.				*a.* No tracheotomy.	
	α. Carcinoma.					
44	Heinecke (1877): From Kranefuss's thesis, Ueber einen Fall von retropharyngealem Carcinom.	M. 51	Carcinoma of tonsil, soft palate, and side of pharynx.	Removal of portion of lower jaw and of disease. Wound left open in middle.	Healed after plastic operation.	No further result given.
45	Albert (1878): Wiener Medicinische Presse, vol. xix.	M. 58	Carcinoma of lateral pharyngeal wall recurring after removal of parts through mouth with scissors.	Division of jaw and removal of remains of tonsil and posterior pillar of fauces.	Healed	No further result given.
46	Mikulicz (1883): Deutsche Medicinische Wochenschrift, 1886.	F. 65	Epithelioma of tonsil, pharynx, base of tongue, soft palate, and glands.	Lateral pharyngotomy and removal of ascending ramus of jaw from in front of angle.	Recovery	Recurred within 2 years locally, and inoperable. Bad functional result.
47	Mikulicz (1883): Deutsche Medicinische Wochenschrift, 1886.	M. 61	Carcinoma of tonsil, soft and hard palate.	Same as above, but failed to entirely remove disease.	Death in 2½ hours from collapse and blood in trachea.	
48	Polaillon (1882): Gazette Médicale de Paris, 1886.	M. 43	Epithelioma of left tonsil spreading on to anterior pillar of fauces, soft palate, and base of tongue. Glands in neck.	Removal of glands and ligature of external carotid. Incision from angle of mouth to join vertical one. Tumour removed by galvano- and thermo-cautery.	Recovery. Violent hæmorrhage on tenth and eleventh days.	Died of recurrence during the year.
49	Trendelenburg (1888): From Stappert's thesis, Das Carcinom der Tonsille, 1889.	M. 37	Carcinoma of right tonsil reaching down to larynx, involving half of soft palate and base of tongue. Glands.	Incision dividing middle of lower lip and along lower border of jaw to angle. Removal of disease, including right half of tongue. No ligature of external carotid.	Recovered and discharged in a month. Bleeding not severe.	No further result.
50	Polaillon (1884): Gazette Médicale de Paris, 1886.	M. 41	Carcinoma of half soft palate, tonsil, side of tongue, and floor of mouth on left side. Glands.	Ligature of external carotid. Incision from angle of jaw to the neck incision. Removal by galvano-cautery.	Recovery. Hæmorrhage on next day, and on third day very profuse. Stopped by plugging and ligature.	Recurrence in 2 months and death in 8 months.
51	Polaillon (1885): Gazette Médicale de Paris, 1886.	M. 55	Epithelioma of left lower gum, floor of mouth, and extending on to pharynx. Gland.	Ligature of external carotid. Division of lower jaw and removal of mass by thermo-cautery.	Hæmorrhage on the fourth day and rapid death, probably from external carotid, the ligature being destroyed by the cautery.	
52	Polaillon (1886): Gazette Médicale de Paris, 1886.	M. 70	Epithelioma of right tonsil, soft palate, pillars of fauces, and base of tongue.	As above	Died, septic pneumonia, on third day.	
53	Weinlechner (1886): Aerztlich Bericht des k. k. Allgemein. Krank. zu Wien, 1888, p. 208.	M. 60	Ulcerated tumour of right tonsil, soft palate, and anterior pillar of fauces (? carcinoma).	Incision from angle of mouth, resection of jaw, &c.	Severe bleeding third day. Ligature of common carotid, followed by hemiplegia in 3 hours and death in 17 hours.	
54	Küster (?) (1884): Meyer's Thesis, Statistik der Zungen Carcinome, 1888.	M. 28	Carcinoma of base of left side of tongue, extending on to pharynx. Gland.	Both linguals tied. Jaw sawn through and disease removed Much blood lost, and some entered trachea.	Recovered	Recurred quickly, and patient died 11 months after operation.
55	Küster (?). Meyer's Thesis.	M. 39	Carcinoma of base of left side of tongue, anterior pillar of fauces, and epiglottis.	Removal of more than half the tongue, half the epiglottis and hyoid bone, left tonsil, pillars of fauces, and left side of floor of mouth.	Recovered	Recurred quickly, and died 9½ months after operation.
56	Rushton Parker (1876): Medical Times and Gazette, 1877, p. 590.	M. 58	Epithelioma of left side of tongue, lower jaw, and cheek.	Cheek split, body of jaw removed, half the tongue, part of each jaw, sub-maxillary gland, side of pharynx and part of soft palate.	Recovered	Recurred in glands, on right side, 6 years later, and subsequent death.

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TABLE III.—GROUP II.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
57	Rushton Parker (1877): Medical Times and Gazette, 1877, p. 590.	M. 54	Epithelioma of soft palate, fauces, gum, and floor of mouth.	Cheek split and piece of jaw removed. Removal of half tongue, half of soft palate, side of pharynx and submaxillary glands.	Recovered	Recurred in glands, attempt to remove them failed. Death 5½ months after operation.
58	Lange: New York Medical Journal, 1891.	? ?	Epithelioma of left wall of pharynx, tonsil, soft palate, and submaxillary gland.	Cheek split and jaw divided near angle. Affected parts excised.	Recovered	Swallows well. No further history.
59	Kocher (1883): Langenbeck's Archiv für Klinische Chirurgie, vol. xlv.	M. 49	Recurrence *in situ* after removal of carcinoma of right tonsil, &c. See Case 27.	Extensive removal of affected parts.	Recovered	No further history.
60	Kocher (1885): Langenbeck's Archiv für Klinische Chirurgie, vol. xlv.	M. 57	Carcinoma of anterior pillar of fauces, soft palate, tonsil, side of pharynx, and base of tongue. Glands.	Excision of diseased portion of jaw and affected parts.	Recovered	No further history.
61	Barker (1885): THE LANCET, Dec. 3rd, 1887.	M. 55	Epithelioma of tonsil and side of pharynx, slightly on hard and soft palates, on side of tongue, and on lower jaw behind molar.	Cheek split, ascending ramus of jaw removed. Half soft palate, mucous membrane on hard; side of pharynx and part of tongue removed.	Recovered	Recurred in 6 months, and died 3 months later.
62	Watson Cheyne (October, 1895). See Lecture.	M. 55	Recurrence *in situ* after removal of epithelioma of tonsil, palate, tongue, &c. See Case 84.	Removal of ramus of jaw and internal pterygoid muscle, pterygoid plates, part of masseter and temporal muscles, scar tissue. Nitric acid applied to cut surfaces.	Recovered. On the 9th day, nitric acid sloughs separating and haemorrhage from internal carotid, which was tied above and below, without any bad result.	Patient still well.
63	Dupage (1894): Journal of Laryngology, 1895.	M. 52	Epithelioma of right tonsil, soft palate, and lateral wall of pharynx. Many glands.	Glands removed and external carotid tied. Pharynx exposed by Mikulicz's method, and affected parts removed.	Recovered	Well 8 months later.
			β. Sarcoma.			
64	Cheever: Philadelphia Medical News, 1889.	M. 57	Round-celled sarcoma of left tonsil. Two glands in neck.	Glands removed. Jaw sawn and tumour taken away.	Recovered	Recurred in glands in anterior triangle. Removed. No further report.
65	Trendelenburg (1882): Jardon's Thesis, Ueber Tonsillengeschwülste, 1883.	M. 49	Malignant lymphoma of right tonsil extending into soft palate and on to wall of pharynx. Large mass in neck at angle of jaw.	Removal by lateral pharyngotomy and division of jaw.	Recovered	Recurrence locally 6 months later, and also nodules over the body.
66	Weeks (1891): Transactions of American Surgical Association, 1892.	M. 57	Very large ulcerated left tonsil (? sarcoma) filling fauces. Glandular masses in neck.	Glands removed, jaw divided, tonsil removed.	Recovered	Well a year later.
67	Von Winiwarter: Archiv für Klinische Chirurgie, vol. xviii.	M. 62	Malignant lymphoma of right tonsil pushing aside uvula, extending on to angle of lower jaw and side of pharynx. Mass in anterior triangle.	Removed after resection of the jaw.	Died on 2nd day.	
68	Genzmer: Deutsche Gesellschaft für Chirurgie, 1879, vol. viii.	M. ?	Sarcoma of tonsil ...	Division of jaw. Removal of tonsil, part of soft palate, whole of right, and half posterior pharyngeal wall.	Recovered	Well 2¾ years later.
			α. Carcinoma.			
69	Von Bergmann (1883): Deutsche Medicinische Wochenschrift, 1883.	F. 62	Carcinoma of tongue, tonsil, and side of pharynx; right side. Glands.	Removal of tongue (only a very small piece left on left side), piece of jaw, floor of mouth, side of pharynx, submaxillary glands, and lymphatic glands. Plastic 3 weeks later.	Recovered	Well 107 days after operation.
70	Mikulicz: Deutsche Medicinische Wochenschrift, 1886.	M. 42	Carcinoma of whole side of pharynx and half soft palate, going high up to base of skull. Glands.	Removal of ascending ramus of jaw. Failure to remove the upper part of growth.	Recovered. Went out in 6 weeks.	Continued growth.
71	Mikulicz (1894): Langenbeck's Archiv für Klinische Chirurgie, 1895.	M. 55	Carcinoma of right tonsil, spreading on to soft palate down to base of tongue, reaching upper jaw, and upwards into post-nasal space. No glands.	Incision along anterior border of sterno-mastoid, and then from angle mouth of to middle of this. Ramus of jaw removed behind. Tumour removed.	Recovered	No further history.

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TABLE III.—GROUP II.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
72	Helferich (1890): Barthauer's Thesis, Ueber Malignen Pharynxtumoren, 1891.	F. 61	Epithelioma on left side of pharynx, soft palate spreading on to hard palate, tonsil, pillars of fauces, side of pharynx as low as larynx, and on to tongue.	Tracheotomy. Subhyoid pharyngotomy; cheek split from angle of mouth to other incision, jaw divided, and ramus removed. Tumour taken away, also piece of hard palate. Tumour reached up to base of skull, and was there peeled off, and the surface cauterised with thermo-cautery.	Died, on 6th day, of septic pneumonia.	
73	Küster (1884): Deutsche Medicinische Wochenschrift, 1885.	M. 61	Epithelioma of left tonsil, soft palate, pharynx and tongue, and mucous membrane over angle of jaw up to upper jaw. Glands.	Incision from angle of mouth to sterno-mastoid. Jaw sawn in front of masseter. Posterior part disarticulated. Growth removed.	Died, on 7th day, of septic pneumonia and mediastinitis.	
74	Küster (1885): Deutsche Medicinische Wochenschrift, 1885.	M. 49	Epithelioma of left tonsil and side of pharynx on to side of tongue, and soft palate to near uvula.	Jaw sawn through as in 73, and ramus removed. Removal of growth. No glands removed.	Recovered. Functional result good	Recurred in lymphatic glands. Removal 5 months later. No further history.
75	Kocher (1879): Deutsche Zeitschrift für Chirurgie, 1880.	M. 45	Excision of tongue in May of same year. In Oct. recurrence over lower jaw in front of masseter, from this an ulcerated mass down to hyoid bone, inside of cheek, on to soft palate, tonsil, and whole side of pharynx up to naso pharynx.	Angular incision laying bare side of jaw and neck. Branches of carotid and jugular tied. Left half of lower jaw removed, and all the growth and remains of tongue.	Recovered	Recurrence 9 weeks later. Inoperable.
76	Kocher (1876): Deutsche Zeitschrift für Chirurgie, 1880.	M. 53	Carcinoma on left side of tongue (ulcerated) extending on to fold between the jaws, up to the tonsils, and on to soft palate as far as uvula.	Jaw divided at anterior border of masseter. Incision along anterior border of sterno-mastoid and along jaw. Wound left open. Tracheotomy tube left in 5 days.	Recovered. Still small fistula. Non-union of jaw.	9 months later, removal of glands. Well, 3 years later.
77	Kocher (1875): Deutsche Zeitschrift für Chirurgie, 1880.	M. 52	In May, removal of whole left half of tongue. Recurrence in January, adherent to jaw, reaching to hyoid bone and in stump of tongue.	Removal of piece of jaw, tumour, great cornu of hyoid bone and stump of tongue.	Recovered	Died of recurrence a year later.
78	Kocher (1876): Deutsche Zeitschrift für Chirurgie, 1880.	M. 56	Epitheliomatous ulcer of base of left side of tongue, extending on to side of pharynx and up to hard palate. Glands.	Jaw divided in front of masseter and posterior part removed. Disease cut away.	Died on 5th day from septic pneumonia.	
79	Kocher (1881): Langenbeck's Archiv für Klinische Chirurgie, vol. 45.	M. 23	Carcinoma of left side of tongue, anterior pillar of fauces, tonsil, and pharynx.	Division of jaw and removal of disease.	Died after 36 hours from septic pleurisy.	
80	Braem (1894): Langenbeck's Archiv für Klinische Chirurgie, 1896.	M. 58	Carcinoma of left tonsil and side of pharynx, extending on to mucous membrane between the jaws and over angle of lower jaw and posterior pillar of fauces, soft palate to border of hard and down close to base of tongue. Glands.	Incision along anterior border of sterno-mastoid. Glands removed Then from angle of mouth to middle of this. Jaw removed from in front of masseter. Mass removed. Trendelenburg cannula left for 24 hours, and ordinary cannula for 7 days.	Recovered	No recurrence 6 months later. Functional result good.
81	Albert: Wiener Medicinische Presse, vol. 19.	M. 27	Recurrence after removal of carcinoma of right upper jaw and extension to pharynx; affecting pharynx, lower jaw, cicatrix of upper, &c.	Removal of tissue replacing right upper jaw and part of left, the right side of the pharynx, almost all the right side of the lower jaw and glands.	Recovered (?)	Further recurrence, and death soon afterwards.
82	Dupuy (1896): Journal of Laryngology, 1895.	M. 53	Carcinoma of both tonsils and all posterior wall of pharynx.	External carotid tied, Mikulicz's method; whole pharynx and epiglottis removed.	Recovered in spite of pneumonia, diarrhœa, cystitis, &c.	Well, 4 months after operation.
83	Lack (1896): Not published.	M. 54	Epithelioma of left tonsil, soft palate, slightly on to hard, and slightly on to lateral wall of pharynx, on to lower jaw and adjoining part of cheek. Glands in neck.	Glands removed, external carotid tied, incision along sterno-mastoid and thence along lower border of jaw. Flap raised, jaw divided close to second molar and ramus excised. Pharynx opened and mass clipped out.	Went on well for 3 weeks and parts looked well. Died suddenly, cause not discovered. (? Septicæmia.)	

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TABLE III.—GROUP II.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
84	Watson Cheyne (26/7/95). See Lecture II.	M. 55	Epithelioma of tongue, tonsil, soft palate, side of pharynx, gum of lower jaw at back and glands in neck on left side.	Removal of glands and ligature of external carotid. A week later tracheotomy, division of jaw and removal of affected portion with half the tongue, the tonsil, half the soft palate, &c.	Recovered	Recurred 2½ months later locally. See Case 62.
85	Mikulicz: Deutsche Medicinische Wochenschrift, 1886.	M. 28	Sarcoma of tonsil spreading on to pharynx, almost filling it up, and up to choanæ.	Mikulicz's operation. Tracheotomy.	Healed	Died, 3 months later suddenly. Cause not known.
86	Obalinski: Centralblatt für Chirurgie, vol. xiv.	M. 49	Sarcoma of right side of pharynx and tonsil, involving pillars of fauces and soft palate. Glands.	Removal of glands. Resection of jaw. Removal of tumour.	Recovered in 5 weeks. Function good.	No further note.
87	Kümell: Deutsche Medicinische Wochenschrift, 1888.	M. 28	Sarcoma of right tonsil, pillars of fauces, and part of pharynx, developing after removal of a large sarcomatous mass from the neck.	Lateral pharyngotomy. Jaw sawn through. Cheek split.	Recovered. Tracheotomy tube removed on 4th day.	No further note.
88	Czerny (1877): Beiträge zur Operativen Chirurgie, 1878, p. 64.	M. 34	Lympho-sarcoma of left tonsil, soft palate. Wall of pharynx ulcerated. Mass felt at angle of jaw.	Division of jaw. Removal of tumour. Suspicious part left in pharyngo-palatine fossa.	Recovered	Recurred, and second operation 2½ months after first. Died on 7th day from hæmorrhage from lingual artery.
89	Macleod (1880): Glasgow Medical Journal, 1880.	F. 53	Round-celled sarcoma of palate and side of pharnyx.	Jaw split at symphysis. Tumour shelled out with fingers.	Died 2nd day. Lung trouble.	
90	Cheevers (1878): Boston Medical and Surgical News, 1878.	M. 37	Tumour (sarcoma?) of right tonsil passing middle line, and growing rapidly. Glands.	Glands removed. Jaw divided, and tonsil enucleated with fingers.	Recovered	Local recurrence in a month cauterised. Further recurrence and death.
91	Roswell Park (1878): Medical Record, 1893.	M. 58	Round-celled sarcoma of left tonsil, and soft palate ulcerated. Glands.	Glands removed. Jaw divided. Gland and tumour removed.	Recovered	Well, 2½ years later.
92	Roswell Park (1891): Medical Record, 1893.	M. 31	Sarcoma (?) of right tonsil extending into and blocking naso-pharynx. Glands on both sides of neck.	Jaw divided. Common carotid and internal jugular tied.	Died 4 days later.	
93	Lanphear (1894): New York Medical Journal, 1895.	? ?	Sarcoma of right tonsil recurring rapidly after simple removal, filling up pharynx. Mass in neck. Facial paralysis.	Tracheotomy. 3 days later division of jaw, external carotid tied, and mass in neck and mouth removed. Internal carotid wounded and tied.	Died 3 days later; hemiplegia. Never recovered consciousness.	

B.—Where the pharyngeal disease was at a lower level than the tonsillar region, or at any rate d not involve it.

α. Carcinoma.

94	Heineke (1878): Kranefuss's Thesis.	M. 54	Medullary carcinoma of posterior wall of pharynx.	Division of jaw. Removal of mass.	Death in 4 weeks—pneumonia.	
95	Von Bergmann: From Iversen.	M. 58	Cancer of lower part of pharynx and upper part of œsophagus.	Removed	Died 5 days later from suppuration in neck and mediastinitis.	
96	Israel: Berliner Klinische Wochenschrift, 1883.	M. 64	Cancer in left side and anterior wall of pharynx.	Tracheotomy 3 days previously. Oblique incision. Sub-hyoid pharyngotomy, and tumour removed easily.	Died 7 days later from suppuration between trachea and œsophagus and septic pneumonia.	
97	Iversen: Von Langenbeck's Archiv für Klinische Chirurgie, vol. xxxi.	F. 34	Epithelioma of posterior wall of pharynx, extending slightly on to left wall.	Tracheotomy. Sub-hyoid pharyngotomy.	Recovered	Recurred, and 5 months after operation tracheotomy and gastrostomy. Died a month later.
98	Iversen: Von Langenbeck's Archiv für Klinische Chirurgie, vol. xxxi.	F. 51	Epithelioma of posterior wall of pharynx at level of entrance of larynx.	Tracheotomy. Sub-hyoid pharyngotomy.	Recovered	Recurred 6 months later. Inoperable.
99	Iversen: Von Langenbeck's Archiv für Klinische Chirurgie, vol. xxxi.	F. 48	Epithelioma of posterior wall of pharynx and œsophagus.	Tracheotomy. Sub-hyoid pharyngotomy.	Recovered	Recurred 4 months later.
100	Cramer (1889): Berliner Klinische Wochenschrift, 1890, p. 987.	M. 57	Carcinoma of posterior wall of pharynx.	Tracheotomy, and 2 days later sub-hyoid pharyngotomy.	Recovered	Died of phthisis 9 months later. No recurrence.

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TABLE III.—GROUP II.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
101	Woods: Medical Press and Circular, 1893.	F. 44	Epithelioma of posterior wall of pharynx just above right arytenoid cartilage.	Tracheotomy. Sub-hyoid pharyngotomy and growth removed. Much blood swallowed; removed by stomach-tube.	Recovered.	No further history.
102	Verneuil (1886): From Kranefuss's Thesis.	? ?	Carcinoma of pharynx.	Langenbeck's incision, with resection of jaw.	Death in 4 weeks from septic pneumonia.	
			β. Sarcoma.			
103	Von Bardeleben: Schmidt's Jahrbuch, 1885, vol. ccvii.	F. 40	Retropharyngeal fibro-sarcoma.	Lateral pharyngotomy. Incision along border of sterno-mastoid.	Recovered after membranous pharyngitis and laryngitis. Sent out at end of 7 weeks.	
104	Verneuil: Progrès Médical, 1884.	P. 57	Sarcoma of sub-hyoid region reaching to left parotid region.	Tracheotomy. Removal of tumour and diseased part of hyoid bone.	Died of collapse. Secondary nodules found in lungs and mediastinal glands.	
105	Baum (1875): Berliner Klinische Wochenschrift, 1875. Reported by Rosenbach.	M. 45	Round-celled sarcoma about size of hen's egg in pharynx, chiefly on right side.	Tracheotomy on admission for dyspnœa. Pharynx opened, tumour peeled off, and base ligatured and removed.	Recovered	Recurred later. Operated on by König.
106	Von Langenbeck (1873): Archiv für Klinische Chirurgie, vol. xv. Quoted from Kranefuss's Thesis.	F. 22	Small-celled sarcoma of pharynx.	Tracheotomy. Resection of jaw. Failure to remove disease.	Death on 5th day from septic pneumonia.	
107	Von Bergmann (1883): Deutsche Medicinische Wochenschrift, 1883.	F. 18	Spindle-celled sarcoma of left great cornu of hyoid bone involving wall of pharynx; ulcerated.	Division of jaw. Formation of fistula. Tracheotomy. Pharyngotomia lateralis after von Langenbeck. Removal of piece of great cornu.	Recovered	Well 5 weeks after operation.
108	Lange: New York Medical Journal, vol. xlv.	M. ?	Sarcoma of left half of pharynx behind palate and down so far as to dislocate larynx.	Tracheotomy. Ramus of jaw removed and disease scraped out.	Recovered	Well 7 months later. (? Simple tumour.)
			C.—Where the epiglottis was the centre of the disease.			
			a. Carcinoma.			
109	Von Langenbeck: Keitel's Thesis, Operationen am Pharynx und Œsophagus, 1883.	M. 51	Carcinoma of epiglottis, &c.	Tracheotomy. Sub-hyoid pharyngotomy and epiglottis removed.	Died third day. Double pleurisy, pericarditis, and mediastinitis. Some growth seen on hyoid bone and arytenoids.	
110	Israël (1893): Von Langenbeck's Archiv für Klinische Chirurgie, 1895.	M. 64	Epithelioma of whole epiglottis and right glosso-epiglottic ligament, and in fossa between tongue and epiglottis. No glands.	Tracheotomy 3 days previously. Incision along lower border of hyoid bone, and all muscles, &c., divided, except thyro-hyoids. Superior laryngeal nerves preserved. Divided thyro-hyoid ligament close to hyoid, and glosso-epiglottic folds. Epiglottis removed. Mucous membrane of tongue stitched back to divided part. Cannula changed second day, and Hahn changed for ordinary tube on third.	Recovered	Four months later, glands removed from both sides of neck. Well 2 years later.
111	Von Schulten: Virchow Hirsch Jahrbuch, 1882, II., p. 368.	M. 54	Epithelioma of epiglottis.	Tracheotomy, followed by bronchitis. Four weeks later sub-hyoid pharyngotomy (Malgaigne) and removal of greater part of epiglottis.	Recovered	No recurrence after 8 months. Eight weeks after operation could swallow well, but had to wear cannula.
112	Watson Cheyne (23/11/94): See Lecture.	M. 60	Epithelioma of base of tongue and epiglottis chiefly on left side. Glands in anterior triangle.	Tracheotomy. Removal of glands. Ligature of external carotid. Lateral pharyngotomy, removal of whole epiglottis and base of tongue.	Recovered	Glands removed from left posterior triangle July, 1895, and from right anterior triangle December, 1895. Well 15 months after operation. Excellent functional result.

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TABLE III.—GROUP II.—*Continued.*

β. Sarcoma.

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
113	Burow: Berliner Klinische Wochenschrift, 1877.	M. 30	Sarcoma of epiglottis removed with snare 1874. Four months later recurrence, forming ulcerated tumour in site of epiglottis obstructing respiration. No glands.	Tracheotomy for dyspnœa. Six days later, removal by snare, but part left. Ten days later, sub-hyoid pharyngotomy part cut off and rest scraped.	Recovered	Well 1½ years later.
114	Albert (1877): Wiener Medicinische Presse, vol. xix.	F. 64	Sarcoma of left arytenoid extending on to epiglottis.	No tracheotomy. Sub-hyoid pharyngotomy and removal of arytenoid and affected part of epiglottis.	Recovered	Well a year later.

GROUP III.—*Cases where the Disease involved both Pharynx and Larynx.*

α. Carcinoma.

115	Von Langenbeck (1878): Archiv für Klinische Chirurgie, vol. xxiv.	M. 48	Carcinoma of right side of pharynx, involving right half of thyroid cartilage, right ary-epiglottic fold, and tip of arytenoid cartilage; glands.	Tracheotomy. Pharynx opened from side. Tumour and part of thyroid cartilage and arytenoid removed. Superior laryngeal nerve divided.	Death, 3 days later, from septic pneumonia.	
116	Von Langenbeck (1878): Archiv für Klinische Chirurgie, vol. xxiv.	M. 78	Epithelioma of posterior wall of pharynx, coming on to lower part of thyroid cartilage.	Lateral pharyngotomy. Removal of pharynx and upper part of œsophagus, piece of thyroid cartilage, and half thyroid gland.	Death, a few hours after operation, from collapse.	
117	Von Langenbeck: Archiv für Klinische Chirurgie, 1879.	F. 52	Carcinoma of right half of pharynx and right arytenoid cartilage.	Tracheotomy and lateral pharyngotomy. Removal of affected part of pharynx, right arytenoid cartilage, and posterior part of right vocal cord.	Died, in 13 days, from septic pneumonia.	
118	Thiersch: From Iversen's paper, Archiv für Klinische Chirurgie, vol. xxxi.	F. 45	Carcinoma of pharynx at lower part and all round œsophagus and affecting larynx.	Resection of pharynx, œsophagus, and larynx.	Recovered	Died, 4 months later, from local recurrence.
119	Thiersch: From Iversen.	F. 57	Carcinoma of pharynx spreading on to both arytenoid cartilages, down to œsophagus, and involving thyroid gland.	Removal of pharynx, larynx, and œsophagus to 2½ cm. below manubrium sterni.	Death, 7 days later, from septic pneumonia.	
120	Iversen: Archiv für Klinische Chirurgie, vol. xxxi.	F. 44	Epithelioma surrounding lower part of pharynx and entrance of œsophagus, affecting posterior part of larynx.	Tracheotomy. Sub-hyoid pharyngotomy. Removal of larynx and upper part of œsophagus.	Recovered	No recurrence after 11 months. Functional result good, but contraction at entrance of œsophagus so great that introduction of œsophageal tube blocked trachea. Attempt to remedy this led to patient's death in 8 days from septicæmia.
121	Iversen: Archiv für Klinische Chirurgie, vol. xxxi.	F. 48	Carcinoma of pharynx and œsophagus, paralysis of vocal cords, and affection of larynx.	Tracheotomy. Removal of larynx, pharynx, and upper part of œsophagus.	Recovered	Well 5 months later.
122	Iversen: Journal of Laryngology, 1888.	F. 49	Epithelioma of lower part of pharynx and upper part of œsophagus.	Excision of larynx, pharynx, upper part of œsophagus, and left lobe of thyroid.	Died on 37th day from broncho-pneumonia and abscess in lung.	
123	Iversen: Journal of Laryngology.	F. 27	Epithelioma of posterior surface of cricoid, lower part of pharynx and upper part of œsophagus.	Removal of larynx, pharynx, upper part of œsophagus, and right lobe of thyroid.	Died, 30 hours later, from collapse.	
124	Iversen: Journal of Laryngology.	F. 46	Epithelioma of right arytenoid and ary-epiglottic fold, and of pharynx down to œsophagus.	Removed incompletely.	Died, 8th day. (? Iodoform ? septicæmia.)	
125	Iversen: Journal of Laryngology.	F. 34	Epithelioma of epiglottis extending down to lower part of pharynx.	Removal of pharynx, larynx, epiglottis, and left lobe of thyroid.	Recovered	Well 14 months later.
126	Marcacci: From Bosworth's Diseases of the Throat and Nose.	F. 20	Epithelioma of lower part of pharynx and upper part of œsophagus. Larynx also involved.	Sub-hyoid pharyngotomy (?)	Death in 4 days.	

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TABLE III.—GROUP III.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
127	Watson Cheyne (1/8/92): See Lecture II.	M. 40	Epithelioma of right side of pharynx, right ary-epiglottic fold, and epiglottis. Mass adherent to thyroid cartilage.	Tracheotomy. Lateral pharyngotomy. Removal of disease and half the epiglottis. Rest of larynx left intact. Rest of epiglottis removed next day.	Died from septic pneumonia, on 4th day.	
128	McLeod (1891): Indian Medical Gazette, 1891.	M. 38	Malignant disease of left half of larynx, epiglottis, and arytenoids. Glands.	Extirpation of whole larynx, anterior wall of pharynx, and glands.	Recovered	No further history.
129	Lack (1894): Not published.	F. 54	Epithelioma of right arytenoid and adjacent parts.	Tracheotomy, lateral pharyngotomy, and excision of affected parts.	Died, on 8th day, from exhaustion partly due to hæmorrhage.	
130	Bull (1888): Medical Record, 1895.	M. 51	Epithelioma of right side of larynx, epiglottis, and neighbourhood. Glands.	Tracheotomy. 11 days later removal of half the larynx, epiglottis, and part of pharynx.	Recovered	Died from recurrence in 14 months.
131	Stimson (1892): Medical Record, 1895.	M. 36	Carcinoma of larynx and œsophagus.	Removal of part of larynx and œsophagus.	Died in 36 hours.	
132	Branham (1887): Medical Record, 1895.	M. ?	Carcinoma (?)	Removal of larynx and pharynx.	Died, on the 4th day, from pneumonia.	
133	Roux (1887): Medical Record, 1895.	F. 61	Carcinoma (?)	Removal of larynx, pharynx, and glands.	Recovered	Recurred in 4 months.
134	Billroth (1879): Archiv für Klinische Chirurgie, vol. xxxi.	F. 43	Carcinoma of larynx and pharynx.	Removal of whole larynx, thyroid gland, and part of pharynx.	Died 5 weeks later, from œsophageal tube passing into mediastinum.	
135	MacEwen (1879): Tauber 26 in Archiv für Klinische Chirurgie, vol. xli.	M. 56	Carcinoma of larynx and pharynx. Glands.	Removal of whole larynx, upper part of pharynx, and glands.	Died, on 3rd day, from pneumonia.	
136	Bircher (1880): Tauber, 41.	F. 49	Scirrhus of thyroid gland and larynx. Partial laryngectomy and recurrence in 6 months.	Removal of whole larynx and part of pharynx.	Died, 16th day, from pneumonia and gangrene of lung.	
137	Albert (1881): Tauber, 54.	M. 45	Carcinoma of larynx, filling up nearly half the lumen.	Removal of whole larynx, except epiglottis and part of œsophagus.	Died, on 8th day, bleeding from internal carotid, ligature; collapse.	
138	Margary (1881): Tauber, 56.	F. 36	Epithelioma, larynx and œsophagus.	Removal of whole larynx and first tracheal ring, part of pharynx and œsophagus.	Recovered	Recurred in 3 months, and died from bleeding in 6 months.
139	Reyher (1882): Tauber, 64.	M. 55	Carcinoma, larynx and pharynx.	Removal of whole larynx and part of œsophagus.	Died, 14th day, from inanition.	
140	Holmer (1882): Tauber, 69.	M. 63	Epithelioma of larynx and pharynx.	Removal of whole larynx and part of pharynx.	Died, 4th day.	
141	Von Winiwarter (1882): Tauber, 76.	M. 50	Carcinoma of larynx, pharynx, and glands.	Removal of whole larynx, part of pharynx and glands, with internal jugular vein.	Died, 9th week, inanition.	
142	Novaro (1883): Tauber, 87.	M. 54	Carcinoma of larynx, pharynx, and thyroid gland.	Removal of whole larynx, thyroid gland, and part of pharynx.	Died, 1 month, croupous pneumonia.	
143	Thos. Jones (1884): Tauber, 94.	M. 44	Epithelioma of larynx and pharynx.	Removal of whole larynx, part of pharynx, and first tracheal ring.	Recovered	Recurred in lymphatic glands.
144	Hahn (1884): Tauber, 101.	F. 52	Carcinoma of œsophagus and larynx.	Removal of whole larynx, anterior wall of pharynx, and œsophagus.	Recovered	Rapid recurrence and death in 2 or 3 months.
145	Jawdynsky (1885): Tauber, 112.	F. 63	Carcinoma, larynx and pharynx.	Removal of whole larynx and part of pharynx.	Recovered	Died from recurrence in 10 months.
146	Péan (1888): Tauber, 119.	M. 65	Epithelioma, larynx and pharynx.	Removal of whole larynx, part of epiglottis, and anterior wall of pharynx.	Died, pneumonia.	
147	Péan (1894): Archiv Internationale de Laryngologie, 1895.	M. 50	Epithelioma of larynx, epiglottis, pharynx, œsophagus, and trachea.	Tracheotomy. Removal of whole larynx, part of pharynx, and œsophagus.	Recovered	Well, 2 months later.
148	Dupont (1886): Tauber, 127.	M. 52	Carcinoma of larynx, epiglottis, and glands.	Removal of whole larynx, epiglottis, and part of œsophagus.	Recovered	Died 14 months later. (? Cause.)
149	Agnew: Tauber, 134.	M. 58	Carcinoma of larynx and glands.	Removal of whole larynx, and part of anterior wall of pharynx.	Died, 3rd day.	

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TABLE III.—GROUP III.—*Continued.*

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
150	Rushton Parker (1887): Tauber, 147.	M. 39	Carcinoma of larynx and pharynx recurring after two previous partial operations.	Total extirpation of larynx, part of pharynx and tonsils.	Recovered	Recurred in 9 weeks followed by death.
151	Kocher (1882): Von Langenbeck's Archiv, vol. xliv.	M. 54	Carcinoma left ventricular band, arytenoid, ary-epiglottic fold, left side of pharynx and glands.	Total extirpation of larynx, part of pharynx and glands.	Recovered	No recurrence in 4 months. Died in 14 months, cause unknown.
152	Kocher (1882): Von Langenbeck's Archiv, vol. xliv.	M. 43	Carcinoma, larynx and pharynx.	Total extirpation of larynx and part of œsophagus.	Recovered	Recurred in 6 months.
153	Kocher (1889): Von Langenbeck's Archiv, vol. xliv.	M. 53	Epithelioma, larynx and glands, &c.	Total extirpation of larynx, resection of pharynx and œsophagus.	Died, 5th day, collapse and accumulation of mucus.	
154	Kocher (1890): Von Langenbeck's Archiv, vol. xliv.	M. 58	Diffuse growth upper part of larynx, tongue, and glands.	Removal of tongue, floor of mouth, hyoid bone, part of pharynx, thyroid cartilage, and lower jaw.	Recovered	Recurrence in 11 months.
155	Von Langenbeck (1875): No. 8 in Wassermann's Statistics. Deutsche Zeitschrift für Chirurgie, 1889.	M. 57	Carcinoma of larynx, epiglottis, and hyoid bone.	Removal of the whole larynx, epiglottis, part of tongue, pharynx, and œsophagus.	Recovered	Died of recurrence 4 months after operation.
156	Bottini (1877): No. 15, Wassermann.	M. 48	Epithelioma of larynx, &c.	Total extirpation of larynx and part of œsophagus.	Died, 3 days later, pneumonia.	
157	Thiersch (1880): Wassermann.	M. 36	Carcinoma of larynx, &c.	Total extirpation of larynx and part of œsophagus.	Recovered	Died, 3½ years later, of recurrence.
158	McLeod (Calcutta) (1883): Wassermann.	M. 40	Epithelioma of larynx, &c.	Total extirpation of larynx, epiglottis, part of pharynx, & glands.	Died, 5th day, hæmorrhage, commencing pneumonia.	
159	Landerer (1883): Wassermann.	M. 47	Carcinoma of larynx and pharynx.	Total extirpation of larynx and left side of œsophagus.	Died, 4th day, collapse.	
160	Krön'lein (1886): Wassermann.	F. 38	Carcinoma of larynx, &c.	Total extirpation of larynx and part of œsophagus.	Recovered	Died, 13 months later, of recurrence.
161	Novaro (1887): Wassermann.	M. 72	Carcinoma of pharynx and larynx.	Total extirpation of larynx and part of pharynx.	Recovered	Died of recurrence 9 months later.
162	Riegner (1888): Wassermann.	M. 60	Carcinoma of larynx, &c.	Total extirpation of larynx and part of trachea and œsophagus.	Died, 4 weeks later, pneumonia.	
163	Billroth (1881): Wassermann.	M. 65	Carcinoma of larynx, &c.	Removal of right half of larynx and part of pharynx.	Died, 6 weeks later, from sepsis, recurrence.	
164	Billroth (1884): Wassermann.	M. 58	Carcinoma of larynx and pharynx.	Removal of right half of larynx, part of pharynx, glands, and greater part of epiglottis.	... ...	Recurrence 2 months later.
165	Billroth (1884): Wassermann.	M. 46	Carcinoma of larynx and pharynx.	Removal of right half of larynx, part of pharynx, epiglottis, and glands.	Recovered	
166	Socin (1887): Wassermann.	F. 55	Epithelioma of larynx.	Removal of right half of larynx, epiglottis, half the hyoid bone, and part of the pharynx.	Recovered	No recurrence 10 months later.
167	Demous (1887): Wassermann.	M. 44	Epithelioma of epiglottis and tongue.	Removal of the upper two-thirds of thyroid cartilage, part of the pharynx and tongue.	Recovered	Recurrence 9 months later.
168	Krönlein (1887): Wassermann.	M. ?	Carcinoma of larynx ...	Removal of half the larynx, part of epiglottis, and pharynx.	Died, 17 days later, from pneumonia.	
169	Küster (1888): Wassermann.	M. 52	Carcinoma of larynx. Glands.	Removal of right half of larynx and part of pharynx.	Died, 19th day, putrid bronchitis.	
			β. Sarcoma.			
170	Caselli (1879): Tauber 27 in Archiv für Klinische Chirurgie, vol. xli.	F. 19	Sarcoma of pharynx, larynx, and base of tongue.	Removal of whole larynx, upper part of pharynx, and glands.	Died, on 3rd day, from pneumonia.	
171	Lange (1879): Tauber, 28.	M. 74	Sarcoma of larynx and part of pharynx.	Removal of whole larynx, right cornu of hyoid, and part of œsophagus.	Recovered	Died of recurrence 7 months later.
172	MacLeod (1883): Tauber, 86.	M. 54	Sarcoma of pharynx, larynx, &c.	Removal of whole larynx, part of pharynx, thyroid, and lymphatic glands.	Died on 5th day from hæmorrhage.	

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ADDENDUM.

Three Cases of Nasal and Naso-pharyngeal Tumours.

No. of case.	Operator and reference and year of operation.	Sex and age.	Disease and parts involved.	Nature of operation.	Immediate result.	Ultimate result.
1	Watson Cheyne (3/3/92): See Lecture II.	M. 46	Sarcoma growing from base of skull, coming down left side of naso-pharynx, blocking Eustachian tube, affecting upper part of soft palate. Glands in neck.	Tracheotomy. Removal of glands, excision of left upper jaw and pterygoid process. Removal of tumour. Cauterisation of bone.	Recovered	Recurrence in nose 15 months later. Growth cleared out, but recurred there and in glands. Died 2¾ years after operation.
2	Watson Cheyne (7/3/94): See Lecture II.	F. 45	Spindle-celled sarcoma growing from roof of nasal cavity and naso-pharynx, bulging the right eye outward and forward, destroying nasal bones and septum.	Incision on right side of nose from forehead to nostril. Removal of tumour.	Recovered	Well a year later.
3	Watson Cheyne (22/12/95): See Lecture II.	F. 24	Lympho-sarcoma growing from base of skull and projecting into naso-pharynx.	Soft and hard palate split, piece of hard palate and vomer removed, and tumour peeled off from bone. Nitric acid applied.	Recovered.	

The only larger statistics which, so far as I know, I have omitted are 12 cases by Krönlein, with 3 deaths. These have not, so far as I can find, however, been published, with the exception of two, one of which was well at the end of 7 years. To include this one and not the others would vitiate the statistics. I have also come across references to the following cases, but have not been able to find full details, and probably they are not published in detail, viz.:—Marchaud—Partial extirpation of the pharynx; died from pneumonia on 7th day. Trélat—Cancer of tonsil and pillars of fauces; recovered. Verneuil (mentioned by Castex)—Epithelioma of tonsil, soft palate, pharynx, tongue and floor of mouth; died from glycosuria. Labbe—Epithelioma of tonsil, soft palate, pharynx, tongue, and floor of mouth; recovered (? recurred). Hueter—Sarcoma of tonsil; death in 3 weeks, from pneumonia. Hahn—Removal of epiglottis; recurrence in 3 months (referred to by Schötz in Centralblatt für Laryngologie," No. 6). Fischer (referred to by Keitel)—Tumour of whole posterior wall of pharynx; recovered. König—3 cases (referred to by Keitel): Recurrent carcinoma of posterior wall of pharynx; recovered. Carcinoma of tonsil extending on to pharynx; died from septic pneumonia. Carcinoma of tonsil; died from septic pneumonia. Billroth—Lympho-sarcoma of tonsil, very extensive, vagus divided; death from œdema of the lungs. Von Bergmann refers (Deutsche Medicinische Wochenschrift, 1883) to a case where he removed a large piece of the lower jaw, tonsil, and almost the whole of one side of the pharynx, but does not state result. Gallardo—Extirpation of cancerous tumour of palate and tonsil in a male aged 40; rapid recurrence in glands in one month.

TOTAL RESULTS.

[D = died. C = no recurrence for 3 years. R = recurred soon, and inoperable. H = healed, and well at last note more than 6 months after operation. H ? = healed, but no note later than 6 months after operation. R (good) = a long interval before recurrence. R (H) = recurred, operated and healed. R (H ?) = recurred, operated and healed, but no further notes.]

GROUP I.—Cases where the disease was removed from the mouth, with or without splitting the cheek, and with or without tracheotomy; where, in fact, there was no wound in the neck communicating with the mouth—

α. Carcinomata, 13 cases—2 D, 4 H ?, 1 R (good), 3 H, 3 C.

β. Sarcomata, 10 cases—5 R, 3 R (good), 2 R (H).

Total 23 cases—2 D, 4 H ?, 5 R, 4 R (good), 2 R (H), 3 H, 3 C.

Mortality, 8·6 per cent.; no benefit, 30 per cent.; benefit, 25 per cent.; cured, 13 per cent.

GROUP II.—Cases of disease in the pharynx where the internal wound communicated with a wound in the neck—

A. Where the disease was situated in or in the vicinity of the tonsils, and extended thence to the neighbouring parts.

1. Where the jaw was not divided—

a. No tracheotomy.

α. Carcinomata, 6 cases—2 D, 2 R, 1 R (H ?), 1 H.

β. Sarcomata, 5 cases—2 H ?, 1 R, 1 R (H), 1 H.

Total, 11 cases—2 D, 2 H ?, 3 R, 1 R (H ?), 1 R (H), 2 H.

b. Tracheotomy.

α. Carcinomata, 9 cases—5 D, 1 H ?, 3 R.

Total where jaw was not divided—

α. Carcinomata, 15 cases—7 D, 1 H ?, 5 R, 1 R (H ?), 1 H.

β. Sarcomata, 5 cases—2 H ?, 1 R, 1 R (H), 1 H.

Total, 20 cases—7 D, 3 H ?, 6 R, 1 R (H), 1 R (H ?), 2 H.

Mortality, 35 per cent.; no benefit, 65 per cent.; benefit, 15 per cent.

2. Where the jaw was divided—

a. No tracheotomy.

α. Carcinomata, 20 cases—4 D, 7 H ?, 7 R, 1 R (good), 1 H.

β. Sarcomata, 5 cases—1 D, 1 R, 1 R (H ?), 2 H.

Total, 25 cases—5 D, 7 H ?, 8 R, 1 R (H ?), 1 R (good), 3 H.

b. Tracheotomy.

α. Carcinomata, 16 cases—5 D, 3 H ?, 4 R, 2 R (H ?), 1 R (C), 1 H.

β. Sarcomata, 9 cases—3 D, 3 H ?, 2 R, 1 h.

Total, 25 cases—8 D, 6 H ?, 6 R, 2 (H ?), 1 R (C), 2 H.

Total where jaw was divided—

α. Carcinomata, 36 cases—9 D, 10 H ?, 11 R, 2 R (H ?), 1 R (good), 1 R (C), 2 H.

β. Sarcomata, 14 cases—4 D, 13 H ?, 3 R, 1 R (H ?), 3 H.

Total, 50 cases—13 D, 13 H ?, 14 R, 3 R (H ?), 1 R (good), 1 R (C), 5 H.

Mortality, 26 per cent.; no benefit, 54 per cent.; benefit, 14 per cent.

Mortality where no tracheotomy = 19 per cent.; where tracheotomy = 38 per cent.

Total results of Group II., A.—

α. Carcinomata, 51 cases—16 D, 11 H ?, 16 R, 3 R (H ?), 1 R (good), 1 R (C), 3 H.

β. Sarcomata, 19 cases—4 D, 5 H ?, 4 R, 1 R (H ?), 1 R (H), 4 H.

Total, 70 cases—20 D, 16 H ?, 20 R, 4 R (H ?), 1 R (H), 1 R (good), 1 R (C), 7 H.

Mortality, 28 per cent.; no benefit, 57 per cent.; benefit, 14 per cent.

B. Where the pharyngeal disease was at a lower level than the tonsillar region, or at any rate did not involve it.

α. Carcinomata, 9 cases—4 d, 3 R, 1 H ?, 1 H.

β. Sarcomata, 6 cases—2 D, 2 H ?, 1 R (H ?), 1 H.

Total, 15 cases—6 D, 3 R, 3 H ?, 1 R (H), 2 H.

C. Where the epiglottis was the centre of the disease.

α. Carcinomata, 4 cases—1 D, 1 H ?, 2 R (good).

β. Sarcomata, 2 cases—2 H.

Total, 6 cases—1 D, 1 H ?, 2 R (good), 2 H.

Total result of Group II.—

α. Carcinomata, 64 cases—21 D, 13 H ?, 19 R, 3 R (H ?), 3 R (good) 1 R (C), 4 H.

Mortality, 32 per cent.; no benefit, 62 per cent.; benefit, 12 per cent.

β. Sarcomata, 27 cases—6 D, 7 H ?, 4 R, 2 R (H ?), 1 R (H), 7 H.

Mortality, 22 per cent.; no benefit, 37 per cent.; benefit, 29 per cent.

Total, 91 cases—27 D, 20 H ?, 23 R, 5 R (H ?), 3 R (good), 1 R (H), 1 R (C), 11 H.

Mortality, 29 per cent.; no benefit, 54 per cent.; benefit, 17 per cent.

GROUP III.—Where the disease involved both pharynx and larynx.

α. Carcinomata, 55 cases—30 D, 4 H ?, 14 R, 2 R (good), 1 H, 4 H (died without recurrence).

β. Sarcomata, 3 cases—2 D, 1 R.

Total, 58 cases—32 D, 4 H ?, 15 R, 2 R (good), 1 H, 4 H (died, well).

Mortality, 55 per cent.; no benefit, 81 per cent.; benefit, 12 per cent.

	Mortality. Per cent.	No benefit. Per cent.	Benefit. Per cent.
Group I.	8·6	30	52
Group II.	29	54	17
Group III.	55	81	12

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The Goulstonian Lectures

ON

THE LIFE-HISTORY OF THE MALARIA GERM OUTSIDE THE HUMAN BODY.

Delivered before the Royal College of Physicians of London,

BY PATRICK MANSON, M.D. ABERD., F.R.C.P. LOND.,

PHYSICIAN TO THE SEAMEN'S HOSPITAL, ALBERT DOCKS; LECTURER ON TROPICAL DISEASES AT ST. GEORGE'S HOSPITAL AND CHARING-CROSS HOSPITAL.

LECTURE I.

Delivered on March 10th, 1896.

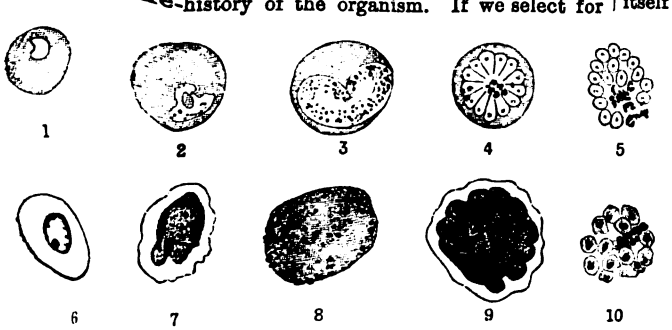
DISCOVERY OF THE MALARIAL PARASITE.

GENTLEMEN,—In his Croonian Lectures on the Climate and Fevers of India delivered before this College in March, 1882, Sir Joseph Fayrer, after briefly alluding to Laveran's then very recent discovery of a parasitic organism in the blood of the subjects of malaria, said: "We seem to be on the threshold of the discovery of unknown and almost unsuspected disease causes, and must watch the progress of investigation with great interest." Except by a very few, this great discovery was for years almost unnoticed. Laveran until lately, received little encouragement even from his own countrymen. For example, Corre a leading authority in France on tropical disease, writing in 1887, hardly mentioned Laveran's work; Kelsch and Kiener also, whose studies in malarial pathology are amongst the most careful and profound we possess, in their book *Traité des Maladies des Pays Chauds*, published so recently as 1889, did very scant justice to their compatriot, whose work they almost ignored. By degrees, however, Laveran's views gained ground. Richard in Algiers, Carter in India, Osler in America, Marchiafava in Italy, endorsed most of his statements, and when finally Golgi pointed out the very definite relation existing between the biological cycle of the parasite and the clinical phenomena of the fever cycle, the discovery was thoroughly established.

My purpose on the present occasion is to endeavour to throw some fresh light on the life-history of the malaria parasite outside the human body. I shall speak of the parasite as the plasmodium malariæ or the plasmodium—useful, though zoologically not very accurate terms.

THE MALARIAL PARASITE WITHIN THE HUMAN BODY.

If in a case of benign tertian ague we examine with the microscope blood procured from the finger in the usual way, it is not very difficult as a rule to see the parasite which is causing the disease. The exact form it assumes differs, however, according to the stage of the fever cycle it represents. A study of the different forms gives the key to a part at least of the life-history of the organism. If we select for our examination blood procured during the state of rigor, or during an hour or two preceding the rigor, when the thermometer is gradually rising, we shall probably encounter a number of pale, morula-like bodies made up of some twelve to twenty spherules heaped together round one or two clumps of black pigment grains (Fig. 4). This morula-like body evidently lies inside a blood corpuscle, for very often we can make out that it is surrounded by a narrow, washed-out-looking rim of hæmoglobin. If, now, we stain these bodies, we can see that each of the little spherules constituting the morula-like mass consists of a deeply-stained nucleolus surrounded by a covering of more lightly-stained protoplasm (Fig. 9). In the same slide we may see similar bodies, but without the surrounding zone of hæmoglobin (Figs. 5 and 10); evidently these latter have escaped somehow from the blood corpuscles they had originally occupied. They appear to be falling to pieces; the little spherules no longer cling together and closely surround the pigment clump; they are scattered about irregularly, each spherule being independent of the other. In the same slide we may encounter individual spherules, which, so far as we can see, belong to no particular cluster system, being quite isolated and floating about in the liquor sanguinis. Further, we can perceive in or on certain of the blood corpuscles minute pale spots, which on careful scrutiny are seen to indulge in more or less active amœboid movement (Fig. 1). If, now, we stain these epi- or intra-corpuscular little bodies—say with methylene blue—they, too, are found to be made up of a deeply-stained nucleolus lying somewhat eccentrically in a larger circular unstained area—a nucleus which has come into view for the first time, the whole being surrounded by a narrow rim of lightly-stained protoplasm. These stained circlets look like tiny signet rings stuck on to the corpuscles (Fig. 6). If we wait for some hours and again examine the blood, we no longer find the pale, morula-like, pigment-enclosing bodies, no scattered spherules, no minute pale specks on the corpuscles; but we see in a proportion of the corpuscles actively moving, pale, amœboid bodies of some size, bodies which incessantly change their forms and keep pushing out pseudopodia, after the manner of amœbæ, into the surrounding hæmoglobin. Manifestly these amœboid bodies lie inside the blood corpuscles. On staining them we again recognise the eccentrically-placed nucleolus, the unstained vesicular nucleus, and the lightly-stained surrounding protoplasm, the latter having now very much increased in actual and relative size. An examination of the blood made several hours later reveals in a proportion of the corpuscles similar but larger pale amœboid bodies. And now a new feature has developed; each amœboid body carries one or more grains of an intensely black, or very dark, fiery-red pigment, which, if you carefully watch, is seen to be constantly changing its position (Fig. 2). Staining still shows the vesicular nucleus, the deeply-stained nucleolus, now larger and less distinct, and the lighter surrounding protoplasm (Fig. 7). If we examine the blood again a few hours before the next paroxysm of ague is due these pale bodies, now no longer actively amœboid, are seen to fill or nearly fill the corpuscles they occupy, and the pigment granules they contain are found to be coarser and more numerous, and hardly, or only very slowly, change their position (Fig. 3). On staining we can no longer bring out a nucleolus; the vesicular nucleus, too, is less distinct, and the now relatively abundant pigment is scattered through the lightly-stained protoplasm which constitutes the entire bulk of the body (Fig. 8). In a proportion of the parasites, for such they are, the pigment is seen to be collecting into little groups, or arranging itself in radiating lines, or becoming massed in a central clump. If these are stained neither nucleolus nor nucleus can be made out, both having become diffused, as it were, throughout the entire mass of the parasite. If we repeat the examination just before or at the time of rigor we again encounter the morula-like clusters of spherules already described and which we encountered at our first examination.



If we repeat our examinations, continuing to make them through a series of fever cycles, we shall find the same procession of forms occurring in the same order; and we conclude that the large pigmented intra-corpuscular body is the mature animal prepared for sporulation, the morula-like mass is the same with the sporules formed, and that the spherules into which it breaks up on leaving the blood corpuscle are spores. These spores, on becoming free, attach themselves to red blood corpuscles, enter the red blood corpuscles, and begin to grow at the expense of the hæmoglobin, which they convert into their proper tissue and into the black pigment which must be regarded as a sort of excrementitious product of the parasite's digestion. In about forty-eight hours they have attained their maximum growth and prepare for sporulation

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the nucleus and nucleolus becoming diffused through the protoplasm. Presently the nucleolar matter collects at a number of points, and around these points the protoplasm arranges itself in the little spherules forming the elements of the morula mass, each little spherule or spore being the rudiment of the new being into which it may develop on the bursting up of the morula mass at the termination of the cycle. Although there may be differences of opinion on some minor points, pathologists and biologists in the main agree that this is substantially the history of the benign tertian parasite in human blood, and that the same account practically applies to all the malaria parasites.

[Dr. Manson here remarked that we have no explanation of the occasional latency, exhibited both by the parasite and by the clinical symptoms, which is so striking a feature in certain cases of malarial infection. He continued:—]

LIFE-HISTORY OF THE MALARIAL PARASITE OUTSIDE THE HUMAN BODY: METHODS OF INVESTIGATION.

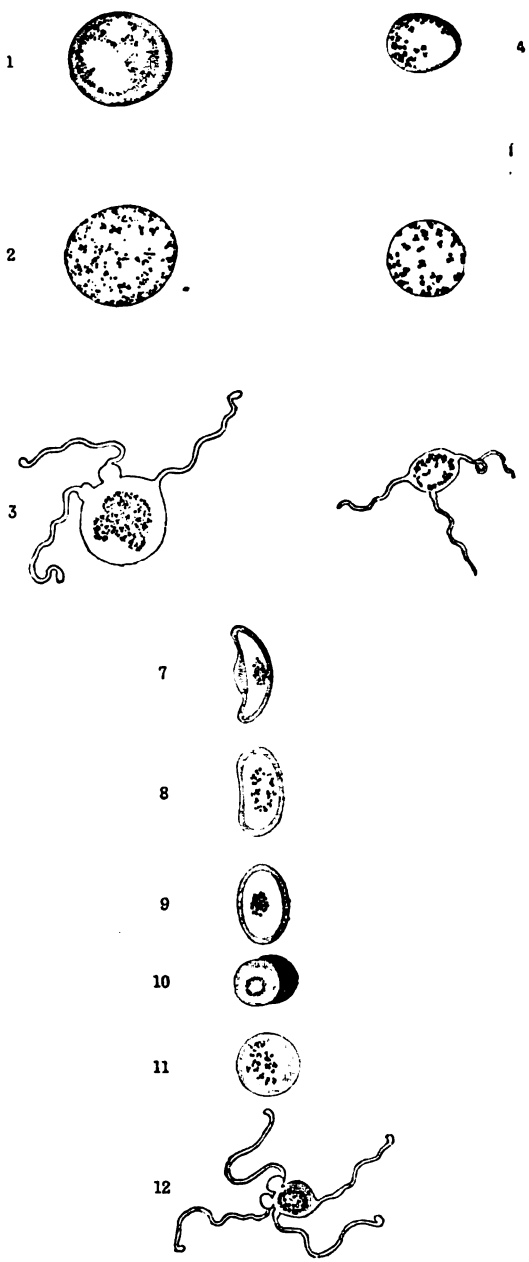
That this parasite, like all parasites, comes from without is certain. It is equally certain that in natural conditions it does not pass, like the germ of small-pox or the germ of measles, directly from one human being to another. There is abundant evidence to show that it does exist outside the body and independently of man; but, over and above this, there is ample evidence to prove that it can also multiply there, and multiply there indefinitely. There are two ways of searching for the extra-corporeal malaria germ: First, to grope about in external nature in a more or less blind way, trying to find some form which might be supposed to be the object sought for; secondly, to assume that the malaria parasite as found in the blood of man is present there as a normal circumstance in its life-history and to follow it out of the human body, tracing it into and through outer nature back to man again. By following the first very fallacious, very unpromising method of investigation many false hopes have been raised, but raised only to be very speedily dashed to pieces. Thus, not to mention many others, Massy's microscopic fungus, Salisbury's famous palmella, Balæstra's alga, Schurtz's oscillaria, and, latest of all, Klebs and Tommasi Crudelli's bacillus malariæ were all put forward as the malaria germ; each in turn held the field for a time, but only to be abandoned for some equally worthless successor. This being so, the only other hopeful method of arriving at a more complete knowledge of the life-history of this important parasite is to seek for its extra-corporeal form in the second way I mention.

The plasmodium certainly is not driven to enter man for the reason that man is in any way necessary for its existence as a species. We know that malaria abounds where man is rarely or never seen—in tropical wildernesses; this could not be the case were man necessary for its development and multiplication. So far from man being necessary for the evolution of this parasite, if anything his presence is inimical to it; in towns and other places, where men congregate, malaria is infinitely rarer than in the open country, where man is a comparatively insignificant feature. We are, therefore, forced to conclude that when the parasite does enter man, it does so as finding in him a suitable alternative host from whom it can escape and extend as a species, that man is only one of the media in which this parasite can exist, and that there is a reciprocity as regards it between him and those other external media or medium. The plasmodium is a true parasite of man, not merely an accidental parasitic visitor. The individual plasmodium gets into man designedly, and, this being so, we may be quite sure that just as provision is made in its economy for a passage into the human body, so provision is made in its economy for a passage out of the human body. Such a provision is absolutely necessary for all true parasites; otherwise, were this not the case, the extinction of the parasite, not merely as an individual but as a species, would be inevitable on the occurrence of the death of the host. There are certain well-known facts about the plasmodium which seem to me to indicate very distinctly the character of the provision we seek for.

THE FLAGELLATED BODY: FIRST EXTRA-CORPOREAL PHASE.

If we look at our slides of malarial blood some fifteen or twenty minutes, or longer perhaps, after they have been mounted, another body, whose appearances we had not remarked before, not infrequently comes into view. This is called the flagellated body (Fig. 11—3, 6, and 12). It is a strange, weird-looking, octopus-like creature, with long, whirling, curling, lashing, tentacle-like arms attached to a central, somewhat spherical, mass, in which are black melanin particles tumbling about in a state of continual agitation. If we keep on watching this body we sometimes see one or more of the tentacle-like arms break away and swim about in the liquor sanguinis with a spirillum-like movement. This peculiar looking flagellated body is certainly not present, or at least is not visible, in our slides immediately after they are prepared. It appears only after they have been put up for some time, that is to say, after the blood has left the vessels. It is, therefore, not a feature of the intra-corporeal parasite. At certain

FIG. 11.



Evolution of the flagellated body in the tertian 1—3, quartan 4-6, and crescent-forming 7—12 parasites. (Compiled from Thayer and Hewetson.)

times in ordinary tertians and quartans, if we examine the blood with the microscope, we will find that though most of the large intra-corpuscular bodies have disappeared—doubtless having been resolved in the course of their development into sporulating forms and dispersed as spores—a few

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large, pigmented, passive, intra-corpuscular forms still remain (Fig. 11—1 and 4). We may also see a few large spherical bodies which are not inclosed in red blood corpuscles (Fig. 11—2 and 5). If we select one of the former and watch it carefully, and if we are lucky, we may see it escape from the including corpuscle and assume the appearance of the other form—the free spherical body. From this we may conclude that the free spherical body originates from the intra-corpuscular body—that they are escaped intra-corpuscular bodies. If we keep on watching and fortune favours, we may after a time see the pigment in the free spherical body become violently agitated, the body itself become contorted and jerked about, and then suddenly we may see long flagella projected from its circumference and begin waving about. A flagellated body is formed (Fig. 11—3 and 6). If we prepare dozens of slides from the same patient's blood by rapidly drying and fixing the blood as soon as it is spread upon the slide in not one of those rapidly fixed preparations will we be able to find a free extra-corpuscular parasite, much less a flagellated organism, proving that the flagellated body does not exist as such in the circulation, but is formed only after the blood has left the vessels.

If we examine with the microscope the blood of a malarial patient who has been suffering for some time from one of the malignant forms of the infection—what has been incorrectly called æstivo-autumnal fever—in addition to those forms of the parasite already described as being devoted to intra-corporeal reproduction, we may see what is known as the "crescent body" (Fig. 11—7). This is a crescent-shaped parasite lying inside a blood corpuscle whose hæmoglobin it has evidently devoured. By careful looking one can make out as a delicate bow running between the horns of the crescent the shell, as it were, of the blood corpuscle inside which the parasite developed and is still lying. Keep one of these crescent bodies under observation. Presently, if you are lucky, or better still if you multiply your chances of success by keeping half-a-dozen crescents under as many microscopes, you will see the crescent slowly change its form. First it becomes stouter as it were, the ends rounding off more and the body becoming thicker (Fig. 11—8). Next it loses all appearance of being a crescent and becomes ellipsoid (Fig. 11—9). Then slowly the ellipsoid changes into a perfect sphere (Fig. 11—10). In the crescent there is always a mass of motionless pigment granules about its centre. During the change of form described this mass of pigment still remains passive and central. The sphere once formed, however, a change occurs in this respect, the pigment granules beginning to move, at first slowly, but presently more actively, dancing about in the most energetic manner in the centre of the parasite. By-and-by, their agitation increasing, they burst through what I take to be the delicate membrane hitherto enclosing them. The pigment now becomes diffused throughout the entire mass of the sphere, and continues to indulge in violent boiling-like movement (Fig. 11—11). At the same time the sphere itself becomes agitated—excited, as it were—changes form, writhes, is jerked violently about by some unseen force, and then suddenly flagella are projected from its circumference (Fig. 11—12), just as already described in the case of the free spheres of the quartan and the benign tertian parasite. That these ellipsoidal and spherical forms do not exist as such in the circulating blood may be proved, as in the case of the tertian and quartan plasmodium, by fixing the blood immediately on its removal from the body; on such slides—even although wet slides prepared simultaneously may exhibit crescents, ellipsoids, and spheres—we never find the two latter forms, but only crescents, and, of course, should fever be present or imminent the usual intra-corpuscular forms of the plasmodium. This transformation of the crescent into the flagellate body is a very striking phenomenon and must be referred to one of two things. Either it is a degenerative change in a dying or dead parasite or it is a vital evolutionary change—a normal step in the life of the parasite. My conviction is that it is the latter, and that the flagellated body is the first phase of the extra-corporeal plasmodium.

THE FLAGELLATED BODY NOT A DEGENERATED PLASMODIUM.

I know, however, that many good authorities, including biologists and pathologists of the highest standing—such as Blanchard, Labbé, Grassi, Marchiafava, Bignami, Golgi, and others—take an opposite view; but I humbly submit that their views are based on altogether insufficient grounds. The advocates of the degeneration hypothesis point to the fact that these flagellated bodies do not appear until the parasite is out of the body, and therefore they say they must be degenerations, seeing that they develop in what the degenerationists choose to regard as conditions unfavourable to life. But I would submit the flagellated body does not come into being until it is out of the body, because it is of no use inside the body, its function lying outside the body. It appears, or rather develops, only where and when it is wanted. The degenerationists say that the parasite is killed by the relative coolness of the microscope slip and concurrent changes in the blood; that its contortions and wriggling flagella are but its death throes; that the agitated movements of the pigment in the spherical body from which the flagella spring are but brownian movements of dead matter. I say the parasite undergoes a developmental change in consequence of being placed in the conditions which are favourable, and not only favourable but necessary, for its development, a temperature considerably below that of the human body, perhaps, being one of them; and that the movements of the pigment are, if they are carefully watched, far too gross and irregular to be of the nature of the molecular motion of dead particles. There are forms of protoplasm, animal and vegetable, whose developments are repressed by a high temperature and encouraged by a lower. Even in the case of this same malaria parasite a temperature lower than that of the human body is conducive to its interests, seeing that it flourishes outside the human body at ordinary atmospheric temperatures, and flourishes in these conditions probably to a far greater extent than it does inside the human body. The degenerationists say that only a small proportion of the large free spherical bodies of the quartan and benign tertian parasites and of the crescent-forming parasites proceed to flagellation and that therefore the occurrence of this appearance is exceptional, a mere accident. I hold that the conditions under which our observations are made—that is to say, on our microscope slips—are altogether abnormal and unnatural. I shall show that under more natural conditions flagellation occurs in the case of by far the largest number of crescents; that on the glass the conditions for development are so unfavourable that some crescents never change form, others cease to change on reaching the ellipsoidal stage, others get to the spherical stage and there stop. The fact that under conditions so abnormal as a glass slip affords, and while they are being compressed under a cover-glass, some crescents do manage to pass to flagellation indicates, to my mind that the disposition on the part of the crescent to metamorphose is very strong indeed, and that under natural conditions probably nearly all crescents will do so. The degenerationists say that flagellated bodies are found only in a relatively small number of cases of malarial infection, and that therefore they cannot be a regular and necessary feature of the parasite. Mannaberg says—and so far as my experience goes I can endorse his statement—that provided we examine a case of malarial infection often enough and long enough, we will in every instance encounter the flagellated body. It certainly occurs in all types of malaria—in quartan, tertian, and æstivo-autumnal. Therefore I hold that at some time or other flagellation is a feature in every set of malaria parasites, a regular and normal occurrence, and not irregular, capricious, exceptional, and therefore unnecessary. The degenerationists say that the evolution of the flagella is too rapidly carried through to be a developmental process. I would answer that the appearance of flagella is not, strictly speaking, a developmental process; the flagella are probably pre-existent in the sphere, perhaps, for all we know, in the crescent; their sudden appearance is rather an act of birth than of development, and we know that the act of birth is in most organisms a violent and precipitate process. A full account of all that has been advanced on this point would occupy too much space. An admirable summary of the arguments on both sides will be found in Thayer and Hewetson's article on the Malarial Fevers of Baltimore, in the fifth volume of the "Johns Hopkins Hospital Reports, 1895," to which I would refer you. Laveran, Mannaberg, Danilewsky, Dock, Coronado, and others are, all of them, opposed to the degeneration theory of the flagellates.

FUNCTION OF THE FLAGELLATED BODY.

Admitting, then, that the flagellated body is a living thing, it a phase of the parasite, how may we explain its object? Something has diverted these particular plasmodia from ordinary sporulation. What that something is I do not

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pretend to say, any more than the biologist can pretend to say what it is that turns one embryo into a male and another embryo into a female in other departments of Nature. Had the plasmodium gone on to sporulation in the ordinary way the peripheral portion of its body would have resolved into the ordinary intra-corporeal spores, and the pigmented centre would have been discarded as residual matter; but, being diverted from sporulating in this way by some occult cause, the peripheral portion of the organism is converted into flagellated spores, the central portion remaining as dead residual matter. The flagellated plasmodium I therefore regard as a sporulating plasmodium whose spores, for certain reasons in the interests of the extra-corporeal parasite, assume a flagellate form.

This view is strongly supported by what one sometimes sees in those spheres which stop short of flagellation. The accompanying is a sketch (Fig. 12) of one of these abortive

FIG. 12.

crescent-derived spheres from a case of æstivo-autumnal fever. It represents a very definite body. Originally a crescent-derived sphere which, failing to project flagella, gradually developed a ring of pale, spore-like spheres in what is usually the clear zone around the central circle of pigment. The matrix in which the clear spore-like bodies were located had a slightly brownish tinge, and so showed up these minute bodies with great distinctness. When perfect, the little spherules numbered about fourteen. After a short time they gradually merged into one another, the septum between them disappearing as if from degeneration. Does not this arrangement of spherules recall the rosette body of the ordinary sporulating plasmodium? And does it not suggest by the fact that it occurred in a crescent-derived sphere that this ring of spherules was a ring of coiled-up flagellated spores which, failing to erupt in the usual way, underwent some molecular or degenerative change which by slightly altering their refraction rendered them visible?

I conclude, then, that the crescent body, and the tertian and quartan spherical bodies which proceed to flagellation, are the extra-corporeal sporulating homologues of the intra-corporeal sporulating bodies; that the flagellum is the extra-corporeal homologue of the intra-corporeal spore. Both types of sporulating plasmodium have corresponding functions, both arise from the same source; one is the germ of the plasmodium inside the human body, the other is the germ of the plasmodium outside the human body; both function in the propagation of the parasite. Such is my view of the nature and significance of the flagellated phase of the malaria parasite and such are some of my reasons for entertaining this view. In the following lectures I propose to point out how under natural conditions the potential flagellated plasmodial spore leaves the human body and why this extra-corporeal plasmodial spore is flagellated. I shall then try to follow the parasite a little farther and endeavour to indicate what I cannot but regard as part at least of the extra-corporeal life of the plasmodium malariæ.

THE annual general meeting of governors of the Dental Hospital of London was held at the hospital on March 12th, Mr. F. A. Bevan, one of the trustees of the hospital, being in the chair.

THE ATTACK ON A MEDICAL PRACTITIONER AT RETFORD. — At the Nottinghamshire Assizes last week, before Mr. Justice Hawkins, George Mycroft, twenty-four, a foundry hand, was charged with unlawfully wounding Dr. Charles Westbrook at Retford on Jan. 18th. It will be remembered that Dr. Westbrook was attacked whilst helping the police to get a prisoner to the lock-up, and was severely injured about the head, being confined to his bed for ten days. Evidence for the prosecution went to show that Mycroft struck the blow, but the defence was that this was not reliable. Prisoner was found guilty and was sentenced to twelve months' hard labour, the judge stating that if Dr. Westbrook had died it would have been a clear case of murder.

The Milroy Lectures

ON

THE VALUE OF ISOLATION AND ITS DIFFICULTIES.

Delivered before the Royal College of Physicians of London

BY EDWARD SEATON, M.D., F.R.C.P. LOND.,

MEDICAL OFFICER OF HEALTH OF THE ADMINISTRATIVE COUNTY OF SURREY; LECTURER ON PUBLIC HEALTH AT ST. THOMAS'S HOSPITAL; AND EXAMINER IN PUBLIC HEALTH AND STATE MEDICINE TO THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND THE UNIVERSITY OF LONDON.

LECTURE III.[1]

Delivered on March 5th, 1896.

MR. PRESIDENT AND GENTLEMEN,—Typhus fever and small-pox afford examples of what may be accomplished by isolation along with the co-related measures of prevention. In what remains to be said of the value of isolation it is impossible to offer evidence as convincing, for the reason that other diseases, principally affecting children, have never as yet received the same amount of attention from public authorities. That which enables preventive measures to be carried out vigorously in the case of either typhus fever or small-pox is the fact that they may frequently strike down men in their prime. They consequently inspire fear among those who directly influence authorities, thus stimulating them to action. Neither whooping-cough, nor measles, nor scarlet fever, nor even diphtheria can give rise to panic such as that which immediately arises when the lives of bread-winners are specially endangered. This is the central fact we have to bear in mind when we come to consider the evidence respecting the advantages derived from such measures for controlling the prevalence of these last-named diseases as experience shows to be administratively possible. The disease of which we have had the most experience is scarlet fever. For the purposes of this lecture I have had charts prepared which show the prevalence of this disease in London and in the large towns of England generally. The experiences of London ought to be particularly instructive. The history of scarlet fever is, of course, not so dramatic (if I may so use the word) as that of the other two diseases. The death-rate has fallen very decidedly, as will be seen from the accompanying mortality chart. But the fall might have been greater, taking into account the largely increasing proportion of cases isolated at hospitals. The following table shows the annual death-rates per million for the last few years—namely, 1891, 1892, 1893, 1894, and 1895—as compared with those for previous periods.

Year.	Deaths.	Year.	Deaths.
1861–70	1133	1892	273
1871–80	600	1893	369
1881–90	330	1894	220
1891	142	1895	189

It will be noted that there was a very remarkable improvement shown during the decades 1871–80 and 1881-90, as compared with the period 1861–70, which may be described as the pre-isolation period. We are, therefore, justified in concluding that isolation has exercised a very great influence, but taking the experience of the last four years the history of scarlet fever would appear to be not altogether satisfactory. There was a rise in 1893 to 369. This was followed by a fall in 1894 to 220, and that has been followed by another fall in 1895 to 189. Scarlet fever is well known to be subject to cyclical fluctuations, and, therefore, the *period* would be considered too short to permit of definite conclusions. But it hardly looks as if scarlet fever were going to prove much less fatal in the decade *1891–1900*, when over 60 per cent. of the cases are isolated, than in 1881–90, when less than half that proportion was so treated, so that it would appear that isolation under present conditions is not quite so efficacious in controlling scarlet fever as might have been hoped. At the same time the facts and figures show that the disease may be remarkably

[1] Lectures I. and II. appeared in THE LANCET of March 7th, 1896.

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influenced by isolation, although epidemic diffusion be not wholly prevented. In speaking of epidemic diffusion it must be remembered that the very fact of notification and removal to hospital and the attention which is consequently drawn to the subject give rise to the impression of the epidemic prevalence of the disease. I will repeat what I have already said as to the use of the term "epidemic." It is one which is essentially relative, and in the case of the endemic diseases its use and meaning vary according to the period of which we are speaking. Although it cannot be said to be actually "misapplied" to such increase or diffusion as takes place with endemic scarlet fever in the autumn of every year, yet it should be remembered that it is frequently applied to a proportion of deaths or cases of sickness which in former days would have been entirely unnoticed. The epidemic (so-called) of scarlet fever in London, which has quite lately received so much attention from the press, had it occurred in the period 1861-70 would certainly not have been spoken of as an epidemic, seeing that the prevalence of the disease shown by the death-rate was only about one-fourth of the average. What the statistics of London do show is that hospital isolation alone, even when applied to a very large proportion—nearly three-fourths of the cases—will not prevent a considerable spread of the disease. How is this to be accounted for? It may be that along with the growth of the hospital accommodation there has not been a corresponding improvement in co-related measures of precaution, such as, for example, the attention to details of disinfection and the precautions of which I gave examples in the case of small-pox. Such precautions would in a minor degree only be considered administratively possible, but undoubtedly they would tend greatly to enhance the value of isolation. Not the least of these is the prevention of infection through schools, a subject which is only just beginning to receive due attention. It is possible, too, that in London the severance of the hospital authority from the sanitary authority is not without disadvantages, as I have elsewhere pointed out. There can be no doubt that among other disadvantages consequent on this division of authority is a want of discrimination in the class of cases for which hospital isolation is most important. On the other hand, in the large towns of England, with populations varying from 50,000 to 500,000, unity of administration *does* exist. But there also, for different reasons, although the value of isolation is sufficiently marked, there is an absence of dramatic evidence in its favour as shown by the mortality charts. This may be partly due to the fact that, although in such towns notification of scarlet fever has been in operation for several years, the hospital accommodation, even in many large towns, has been, and is still, of a very inferior character. So that no fair opportunity may be said to have been afforded of showing the full value of isolation as a means of preventing the epidemic diffusion of scarlet fever. The population of the metropolis and the large towns, the statistics of which are published by the Registrar-General weekly, constitutes about half that of the kingdom generally, and it is that half of the population which is more in need of hospital accommodation for scarlet fever on account of the ready communicability of the disease under the circumstances of town life. It may be urged that the proof of the efficacy of isolation for this vast population is not adequately shown in this way. For *pari passu* with the lowering of the mortality of scarlet fever we have clear evidence of a diminished fatality and a lessened morbidity of the disease. So far as the statistics of the hospitals go they show a lessened case-mortality. This diminution of the case-mortality may obviously be explained in three different ways. It may be that there are great advantages in hospital treatment; it may be that cases admitted to hospital since the Notification Act has come into operation now include many of a less severe type than those which formerly found their way to hospitals; or it may be that there is an altered type of the disease due to improved sanitary circumstances generally, both at home and in hospital. Probably these different agencies all exercise an influence; certainly there are districts in the county of Surrey, some with and some without hospital accommodation, in which the case-mortality of the disease is, as I have observed, now less than 1 per cent. The diminished case-mortality, however, strengthens the proof of the value of isolation in other ways. Thus, if it be taken that the reduction of the morbidity of the disease shown by the Asylums Board statistics is 50 per cent., a given death-rate to-day represents twice the prevalence that it would represent some fifteen years ago. In connexion with the sanitary requirements of the country population—that is, the population of the towns and villages, the statistics of which are not given in the weekly returns of the Registrar-General—there is still very much to be accomplished. There is, however, some very valuable evidence bearing on the influence of notification and isolation upon scarlet fever afforded by the reports of some county authorities, notably that of Worcestershire and the district of which Mr. George H. Fosbroke has been the medical officer of health for some twenty years. In an interesting report lately published along with one by the medical officer for Derbyshire Mr. Fosbroke gives the following table of cases which have been removed to the hospitals of the various districts. He is one of the few medical officers of health who have had the opportunity of observing the effects of isolation for a long period of years. He is able to quote numbers of instances where scarlet fever has occurred in families under conditions in which the spread of the disease would in all human probability have taken place but for the removal of the case at the outset. He is able to show also how in certain places where districts have been without accommodation, alongside with those which have been provided with accommodation, the disease has spread in the former and not in the latter. A similar class of evidence is given by my friend and colleague, Mr. Jacob, and is quoted in the reports of the county of Surrey. Comparison is there made for several years of the proportion of cases to households invaded, with the result that generally speaking the figures were greatly in favour of the districts provided with hospitals when contrasted with those districts without hospital provision. Evidence of this kind is the only proof of success that can be adduced, and it is obviously open to the criticism that the non-occurrence of the outbreak is not of itself conclusive of the efficacy of the particular measures; such a criticism applies to all measures of prevention alike, but it is one that is specially likely to occur in the case of scarlet fever, the fluctuations of which are partly due to influences which may be described as seasonal and cyclical.

There is another influence at work the nature and extent of which still remain to be explained. I refer to the influence of locality which is felt in scarlet fever, although less so than in the case of some other diseases of the zymotic class. An epidemic of notable severity occurred several years ago in the town of Hull. It was believed that besides ordinary infection or contagion there was another factor in the spread of the disease principally concerned, possibly a condition of the soil itself, which, if not the controlling factor, may be intimately related to the disease prevalence. In this connexion it is interesting to note that in the city of Paris separate scarlet fever hospital accommodation is, according to writers on continental hygiene (Palmberg, Newsholme, and recently Legge), hardly considered necessary owing to the comparatively slight prevalence of the disease. What is the reason of this comparative immunity? Is it a question of race, habits, climate, or soil? Still more with diphtheria are we for the present at a loss to account for what may be termed local preferences on the part of diseases, albeit their infectiousness or contagiousness is an obvious fact. It is this mysterious influence which obscures the results of isolation. The various and varying prevalences of the disease in England I showed by means of maps at the Budapest Congress of International Hygiene. These maps and the statistics on which they are based I have brought up to date, and submit them for your consideration.

[Here Dr. Seaton exhibited the maps in question. He continued:—]

The study of local preferences of diseases here rather suggests that it is dependent upon the habits or customs of the people in a wider sense. But although we may not yet be in a position to say what is the controlling factor of the disease, it is plain that school attendance does play a considerable part in determining local prevalence just as the absence of isolation and co-related measures favour the spread of scarlet fever. Very likely in both diphtheria and scarlet fever much of the good which might have been expected of isolation has been obscured by the uncontrolled operation of the Elementary Education Act. But as yet we have not sufficient data to enable us to separately estimate the various influences for and against the spread of these diseases. At the same time we must sorrowfully admit that the disease increases in spite of sanitary measures. So

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again with measles, the notification and isolation of which have at various times been urged by experienced sanitarians (recently by Professor Wynter Blyth) we have yet much to learn from the preventive point of view. Edinburgh alone affords us any considerable experience of the efficiency of isolation. Dr. Littlejohn (who has followed the subject closely) writes to me that during 1895, 6940 cases were notified and there were 401 admissions to hospital. Isolation only takes place therefore in a small proportion of cases. Although notification with a small amount of hospital isolation has been carried out in this large city, the experiment can only be said to have been commenced. Edinburgh has initiated the system. If, as it is hoped, in the future its example be followed by several other large towns, we shall be able to see better how far hospital isolation and treatment are likely to diminish the mortality of measles. In estimating the value of isolation in this disease we shall not only have to remember those seasonal and cyclical periods of prevalence described by Dr. Whitelegge in his Milroy Lectures, but we must also take into account preferences of locality which show themselves also in this disease, which is well shown by a chart of comparative mortality in Shropshire and adjacent counties (the work of Mr. A. C. Waters.)

To return to Worcestershire and Warwickshire, one very important part of Mr. Fosbroke's report relates to the cases that have been removed for considerable distances to hospitals. He gives a table which relates altogether to 6 hospitals—viz., those of Alcester, Evesham, Kidderminster, King's Norton, Solihull, and Warwick. The total population for the purposes of which they serve is 183,000, and the periods to which these statistics relate date from as far back as 1875 in the case of Alcester. The total number of cases removed to the hospitals during those periods was 4484. All these cases are arranged in columns according to the distances from which they were removed to the several hospitals. In these districts it has been the custom for the medical adviser to state whether or not the patients are fit for removal, and upon that statement the ambulance is sent. Thoroughly good ambulance arrangements and provision are made. The proportion of cases that have been removed under—

1 mile was	361
1 to 2 miles...	610
2 to 3 ,, ...	1281
3 to 4 ,, ...	470
4 to 5 ,, ...	546
5 to 6 ,, ...	786
6 to 7 ,, ...	188
7 to 8 ,, ...	90
8 to 9 ,, ...	49
9 to 10 ,, ...	24
10 to 11 ,, ...	54
11 to 12 ,, ...	25

It will be seen, therefore, that as many as 240 patients have been removed distances of from seven to twelve miles. Mr. Fosbroke is very strongly of opinion that the removal of patients for this distance is not detrimental, provided, of course, that they are certified to be quite fit for removal when the ambulance is sent. In this opinion I concur, from my own observations of the effect of the removal of cases for considerable distances. These considerations are very important from the administrative point of view, inasmuch as one of the difficulties underlying isolation in country districts is the distance of removal.

THE DIFFICULTIES OF ISOLATION.

The limits of this short series of lectures do not readily allow of my discussing exhaustively and in logical order the various difficulties that have been found to attend the isolation system. It is, perhaps, hardly necessary I should do so, seeing that their nature is clearly indicated in that part of my subject which has been devoted to the value of isolation. First and foremost has been the growing dislike of landowners and householders to the propinquity of "infectious hospitals." The opposition to the establishment of small-pox hospitals has been most violent. It is true that a distinction is made by the Medical Department of the Local Government Board against the dangers which attend the isolation of small-pox on the one hand, or the isolation of scarlet fever, typhoid fever, or diphtheria on the other. Still it is probable that the fear engendered by the numerous reports which have been made of late years as to the dangers of hospitals has not been without its influence in increasing the opposition raised to their establishment or of "infectious hospitals" of any kind whatever. Certain it is that year by year the difficulties have increased to such an extent that some authorities after numerous attempts have felt inclined to abandon the project altogether. That such opposition should be kept within reasonable limits is a thing which authorities have a right to expect at the present day. In country districts the establishment of infectious hospitals is, I believe, practically without danger, and yet in some counties the attempts to provide them have been almost at a standstill. By far the worst difficulty is that to which Sir George Buchanan specially refers in the Government report of 1881: the "misfortunes," as they are termed, which have occurred from time to time within infectious hospitals—that is to say, the accidental infection of persons with another disease than that for which they were removed. This constitutes to my mind one of the gravest difficulties connected with the system of isolation. Unless its extent be fully appreciated and unless the directions of medical officers be loyally followed by hospital or sanitary authorities, the isolation system—a valuable auxiliary to our preventive forces—may be jeopardised. For administrative reasons there are strong inducements to relax stringent rules as to admission of different kinds of diseases when there are vacant beds. I feel it, therefore, my duty in these official lectures to emphatically declare that it is vital to the whole question of isolation following notification that such medical rules should be upheld. We have seen that the town of Leicester has suffered from failure to appreciate them, and within the last five years I regret to say I have witnessed two examples of the spread of disease within hospital walls, under circumstances as to which the authorities had already been duly warned. With the example that we have of the difficulties which have arisen in the administration of laws relating to another great preventive measure—viz., vaccination—we cannot, I think, too strongly insist upon the absolute necessity of making hospital isolation, practically speaking, free from any risk. In the case of country hospitals we must rely mainly on good administration. As regards small-pox it is absolutely essential that the disease should be treated in buildings quite apart from all other infectious diseases. In the case of the other diseases which are intercommunicable—for example, scarlet fever, typhoid fever, diphtheria, measles, and whooping-cough—the rule should be that not more than two diseases should be treated simultaneously even in well-constructed hospitals with good administration. In the case of the metropolis and very large towns it seems to me that the best policy is to insist upon separate hospitals for each of the principal diseases which the municipal authority is undertaking to isolate. Thus, for example, if the isolation of measles should be attempted, as I trust it will be, on a large scale, it should be attempted only under fairly favourable conditions, that is to say, where the patients treated run no risk whatever of receiving any other infection. Along with these precautions against the intercommunicability of infectious diseases experience dictates the absolute necessity of providing enough single-room accommodation to allow the doubtful cases, which must sometimes be sent to a hospital, to be kept under observation for a suitable time. The arrangements at New York seem to be typical of what is best in this direction. There the cases of a doubtful character are isolated for a short time in separate rooms on the mainland near to the point of debarkation. It is not until the nature of the disease is quite declared that they are drafted to the special hospitals which are situated on islands. Whereas in scarlet fever the presence of the disease excites no particular terror, there will always be some cases kept at home which constitute foci of infection. There is no power for their compulsory removal to hospital, nor is it desirable that there should be; but everything should be done by the authorities (without resort to extravagance) to render hospitals attractive. Hospitals built at non-epidemic periods when time can be given to the consideration of the various details as to site and construction so necessary to the complete success of a hospital for infectious diseases form a striking contrast to those which are erected in a hurried manner. Although in 1881 there were reported to be 296 authorities provided with so-called hospitals, it is plain that at that time there were comparatively few that answered to the requirements of the Local Government Board as set forth in a memorandum issued in 1888, reissued in 1892, and again in 1895, entitled "The Provision of Isolation Hospital Accommodation by Local Authorities." The following

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extracts refer to some of the most essential points in the provision of such accommodation:—

"It cannot be too clearly understood that an isolation hospital, to fulfil its proper purpose of sanitary defence, ought to be in readiness beforehand, and during the progress of an epidemic it is of little avail to set about hospital construction. The mischief of allowing the infection to spread from first cases will already have been done, and this mischief cannot be repaired.

'Large villages and groups of adjacent villages will commonly require the same sort of provision as towns; where good roads and proper arrangements for the conveyance of the sick have been provided the best arrangement for village population is by a small building accessible from several villages.

"In towns hospital accommodation for infectious diseases is wanted more constantly as well as in larger amount than in villages, and in towns there is a greater probability that room will be wanted at the same time for two infectious diseases, which should be treated separately. For a town the hospital provision ought to consist of wards in one or more permanent buildings, with space enough for the erection of other wards, temporary or permanent. Considerations of ultimate economy make it wise to have permanent buildings sufficient for somewhat more than the average necessities of the place, so that recourse to temporary extensions may less often be necessary. In any case, it is well to make the administrative offices somewhat in excess of the wants of the permanent wards, because thus at small additional cost they will be ready to serve when occasion comes for the wants of temporary extensions.

"Speaking generally, it has been estimated that the provision of one bed per 1000 inhabitants is sufficient for the permanent requirements of a sanitary district, but such requirements will necessarily vary with the character of the population. Even in a locality where the population is well-to-do and most houses of a size and construction that offer reasonable facilities for the isolation of single attacks of the current infectious fevers, the amount of accommodation needed for public health purposes will be less than in a manufacturing or colliery district, where infectious disease cannot be treated in the houses where it breaks out without very great danger or certainty of its spreading.

Plans, copies of which I exhibit, accompany the memorandum of the Local Government Board, which relates chiefly to the construction of comparatively small hospitals, at the outside not more than twenty-five or thirty beds—that is to say, for populations of small towns or groups of villages. In the case of larger towns the same essential points have to be taken into consideration, and the plans which I am able to show you, some of which are taken from the well-known work by Messrs. Gordon Smith and Keith Young, in Stevenson and Murphy's "Hygiene," and others from the valuable paper on Fever Hospitals by Mr. W. Aldwinkle, given at the Royal Institute of British Architects about a year ago, will make it clear that the large hospitals such as those in and about the metropolis, and at Glasgow, Newcastle, Salford, Nottingham, and Derby, at Budapest, Berlin, and other great cities of the continent, consist mainly of a multiplication of blocks or pavilions, of which the small hospital may be said to be the unit. If time allowed it would be interesting to discuss the questions of detail which are not unimportant, as, for example, the desirability of having covered ways connecting the various blocks or pavilions. It would be especially interesting also to discuss the question of cost per bed, and the necessity or otherwise of certain structural arrangements such as those which frequently add to that cost. I must, however, in view of what I have still to say, confine myself entirely to questions of principle, leaving the details to be amplified at a subsequent period.

The administrative difficulties of providing what might be called a hospital for separate small village communities has already been adverted to in the memorandum of the Local Government Board. It was in view of these difficulties that Lord Thring in 1893 succeeded in carrying a very valuable measure, called the Isolation Hospitals Act. This Act was passed with a view to enable counties to form what is called "hospital districts" in any such extended areas as would be conducive generally to efficiency as well as economy. The Act would have been very much more efficacious but for its limitations; thus it does not apply at all to boroughs having a population of over 10,000 except with their consent. This is a considerable difficulty, and it arises from what is called the "spirit of local self-government," which, when it is allowed to come into play in the case of very small towns, is rather obstructive. Each authority, even in the matter of the provision of hospital accommodation, desires to be independent, but the gratification of this desire is apt to make hospital accommodation less efficacious or much more costly than might otherwise be the case in country districts. In the case of large towns the question of cost has not as yet assumed the proportions of a difficulty, except in the metropolis, where the estimated cost has, I am credibly informed, gradually risen to something like £500 per bed. I need not say that everything should be done to make hospitals attractive, but it is evident that there must be some limit to the cost entailed in the provision of hospitals if they are to be multiplied at the expense of the ratepayers. It has been estimated that in country districts an average cost of £200 to £250 per bed is a fair amount for the provision of the necessary accommodation. On the other hand, the trend of public opinion seems to be unmistakeably towards finding accommodation for sick persons, not necessarily paupers, who cannot be properly housed as sick persons should be, otherwise than at the public expense. It is this tendency in popular opinion that counterbalances the above considerations, inasmuch as it is very largely responsible for the development of our existing hospital system. Our own College had a large share in the initiation of a demand for better accommodation for the poorer classes. In the words of the celebrated memorial moved by Dr. Anstie in 1874: "Physicians are brought much into contact with the poorer classes of the population and are deeply interested in anything that concerns the welfare of these classes, not only on account of the poor themselves, but also because the evils engendered among them affect the whole of society. ... ... It is well known that overcrowding, especially in unwholesome and ill-constructed habitations, originates disease." Rate-supported infirmaries and hospitals (I do not speak at the moment only of hospitals for infectious diseases) for the benefit of those whose living accommodation is too confined when sickness appears in the household or family, are by some political economists regarded as a necessary result of the overcrowding of the population in large towns. It is from this point of view that the important subject of hospitals has lately been discussed. Mr. Gordon Smith and Mr. Keith Young, architects of great experience and ability, the former of whom has for many years been the responsible adviser of the Local Government Board on the question of by-laws, plans, and buildings, hospitals, &c., review the dwelling accommodation of the population of the United Kingdom. They show that with the great mass of the population of towns neither isolation nor decent nursing is possible. Hospitals are therefore the necessary offshoot of the dwelling. So also in country districts it is felt that hospitals are a necessity if the children of poor people are to have a fair chance of recovery from sickness. How impossible this must be under present conditions may be gathered from a recent report by the medical officer for Derbyshire (Dr. Sidney Barwise), who in writing about the progress made in hospital provision makes the following interesting and important statement:—

"In 1879 296, or about one-fifth of the 1510 provincial sanitary authorities possessed some means of isolating cases of infectious disease, and that between that date and 1891 loans amounting to £448,769 had been granted to 100 authorities for the provision of isolation hospitals; so that in 1891 about 400 of the 1510 authorities had made provision for their district, but more than two-thirds were without any means of isolation whatever. In some parts of the country not even that proportion of authorities are provided. For instance, in Derbyshire, out of a population of 426,768, only one district—Buxton, with a population of 7500—has erected a permanent isolation hospital. That there is urgent need of them is apparent from the fact that over 5 per cent. of the tenements in the county have only two rooms, and between 10,000 and 11,000 families in the county occupy three rooms or less, so that the plea that there is not the necessity for isolation in country districts cannot for a moment be upheld." We are, however, very far as yet from having reached the stage at which the general right to free hospitals can be said to be established, but in connexion with isolation of infectious cases the problem may be said to have been worked out during the last twenty years. The infectious isolation hospitals of the metropolis and large towns are free to all cases; there is now no trace of the stigma of pauperism attached to their use; admission can be obtained for any sufferer, provided there is a bed to spare. The position of things has, therefore, undergone a wonderful change since 1872. The isolation hospital accommodation of this kind had only just been originated and was limited to some thousand beds for a population of three millions. It is calculated that the present hospital provision of this kind for the metropolis amounts to 6000 beds, considerably more than the one bed per thousand of the population which is laid down by the Local Government Board as the standard requirement. With the multiplication of hospitals due to the development of the isolation system, and especially stimulated by the introduction of the Notification Act in 1889, there has been a gradual disappearance of

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the signs of a pauper character attaching to the institutions. These have been replaced by the characteristics which distinguish our great voluntary hospitals, not the least important of which is the admission of students, who have the opportunity of regular courses of instruction in the hospital wards. In bringing about these great changes the Royal College of Physicians of London and the Metropolitan Society of Medical Officers of Health had a large share.

In these lectures which I have had the honour to deliver before you I have endeavoured to describe impartially the evidence relating to the value of isolation and at the same time to fairly represent its difficulties. If the country generally should follow the example of the metropolis in respect of hospital provision, especially for infectious diseases, the isolation of which is, I believe, important to the public health, it will surely be spending money wisely and well. The evidence that I have submitted to you in the course of these lectures shows unmistakably that the lives of bread-winners depend on this new method of insurance; it shows also that the health and strength of the rising generation must also in large measure depend on the facilities for complete recovery which, in the case of the vast mass of the population, hospitals can alone afford. Human life is the most valuable of property. It is for "Medicine" to say how it may be preserved in "public" as well as "private" affairs of health. As I commenced these lectures by referring to the physician's influence and work in the politics of health I will now conclude by quoting the words of a master on the subject: "For the further development of our sanitary institutions and their working the educational onward influences may be expected to come from the members of the medical profession, and are perhaps not in any essential sense to be expected largely except from them. This is not meant only with regard to the abstract science of the matter, but equally with regard to administration. Regarding the science it has long been evident that, for such new researches and observations as will supply increase to the body of exact knowledge on which the prevention of disease depends, the world cannot expect much help except from the work of the medical profession, and the same is now constantly becoming more and more clear in regard of Public Sanitary Administration."[2]

A CASE OF DIFFUSE PHLEGMONOUS GASTRITIS.

BY T. N. KELYNACK, M.D. VICT., M.R.C.P.,

PATHOLOGIST TO THE MANCHESTER ROYAL INFIRMARY; DEMONSTRATOR AND ASSISTANT LECTURER IN PATHOLOGY, THE OWENS COLLEGE.

CASES of purulent inflammatory infiltration of the walls of the stomach have been described under a number of different names, amongst which may be mentioned gastritis mycotica, gastritis bacillaris, gastritis submucosa, gastritis phlegmonosa, gastritis purulenta, interstitial purulent gastritis, and diffuse phlegmon of the stomach. A condition of purulent inflammation of the walls of the stomach, although of undoubted rarity, was not altogether overlooked by those we now are accustomed to speak of as "the older pathologists."[1] As far back as the seventeenth century references are to be found chiefly in the writings of Varandœus,[3] Borel,[3] Sand,[4] Vorwaltner,[5] and Bonet.[6] In more recent years the condition has received more or less attention from such observers as Andral,[7] Auvray,[8] Bamberger,[9] Dittrich,[10] Fagge,[11] Habershon,[12] Klebs,[13] Krause,[14] Laboulbene,[15] Leube,[16] Lowenstein,[17] Luton,[18] Martin,[19] Mascaret,[20] Maunoury,[21] Mayer,[22] Mazet,[23] Moxon,[24] Raynaud,[25] Sestier,[26] Strumpell,[27] Tüngel,[28] Whipham,[29] and Ziegler.[30] The admirable papers by Raynaud, Leube, and Whipham may be specially noted, as they are readily accessible in most medical libraries. In addition to the above-mentioned authors, most of whom either give cases of their own or refer to already recorded examples, the following have recorded cases:—Ackermann,[31] Asverus,[32] Beckler,[33] Belfrage,[34] Bianchetti,[35] Chvostek,[36] Deininger,[37] Dirner,[38] Ferraresi,[39] Fontain,[40] Fraenkel,[41] Gaudy,[42] Gläser,[43] Glax,[44] Guyot,[45] Hun,[46] Key and Malmsten,[47] Lewandowsky,[48] Lewin,[49] Ödmansson,[50] Petersen,[51] and Treuberg.[52] Only a few examples of phlegmonous gastritis have been recorded in this country, the more important being those published by Fagge,[53] Habershon,[54] Macleod,[55] Page,[56]

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[2] Vide English Sanitary Institutions, John Simon, p. 473.

[1] Many interesting references to the early writers on phlegmonous gastritis are given by Raynaud (Gazette Hebdomadaire de Médecine et de Chirurgie, 1861, p. 511), and Leube (Ziemssen's Cyclopædia, vol. vii., p. 154.

[3] Varandœus: Tractatus de Morbis Ventriculi. 1620.
[3] Borel (Pierre): Opera. 1656.
[4] Sand: Dissertatio de raro Ventriculi Abscessu. 1701.
[5] Vorwaltner: Eph. Nat. cur. Dec. III., Obs. 142.
[6] Bonet: Sepulchretum Anatomicum. 1700.

[7] Andral (G.): Clinique Médicale. II. Maladies de l'Abdomen. 1839.
[8] Auvray: Étude sur la Gastrite Phlegmoneuse. Thèse de Paris. 1866.
[9] Bamberger: Krankheiten des Chylopoetischen System; Virchow's Handbuch, p. 260. Quoted by Fagge; Transactions of the Pathological Society of London, vol. xxvi.
[10] Dittrich: Quoted by Leube. Ziemssen's Cyclopædia, English Edition.
[11] Fagge: Fagge and Pye-Smith's System of Medicine.

[12] Habershon: Diseases of the Abdomen, fourth edition, p. 163.
[13] Klebs: Allgemeine Pathologie, 1887, Band i., p. 206.
[14] Krause: Ueber sub-mucöse phlegmonoseitrige Magenentzündung. Berlin, 1872.
[15] Laboulbene: Anatomische Pathologie, 1879, p. 107.
[16] Leube: Ziemssen's Cyclopædia, vol. vii., pp. 154–163.
[17] Löwenstein (M.): Ueber Gastritis Phlegmonosa. Kiel, 1874.
[18] Luton (A.): Dictionnaire de Médecine Pratique, vol. xiv., 1871, p. 197.
[19] Martin (Sidney): Functional and Organic Diseases of the Stomach, 1895, p. 277.
[20] Mascaret: Bulletin de la Société Anatomique de Paris, tome xv., p. 176, 1840.
[21] Maunoury: Infiltration purulente puerpérale de l'Estomac. Bulletin de la Société Anatomique de Paris, tome xvii., p. 175, 1842.
[22] Mayer: Abcès sous-muqueux de l'Estomac. Bulletin de la Société Anatomique de Paris, tome xviii., p. 298, 1843.
[23] Mazet: Phlegmon diffus de l'Estomac. Bulletin de la Société Anatomique de Paris, tome xv., p. 173, 1840.
[24] Moxon: Wilks and Moxon's Pathological Anatomy, p. 381.
[25] Raynaud (Maurice): De l'Infiltration purulente des Parois de l'Estomac. Bulletin de la Société Anatomique de Paris, tome vi., p. 62, 1861; and Gazette Hebdomadaire, 1861, pp. 511 and 525.
[26] Sestier: Abcès metastatique des Parois de l'Estomac. Bulletin de la Société Anatomique de Paris, tome viii., p. 130, 1833.
[27] Strumpell: Text-book of Medicine, second American edition, 1893, p. 383.
[28] Tüngel: Virchow's Archiv, 1865, Band xxxiii., p. 306.
[29] Whipham: Remarks on a Case of Phlegmonous Gastritis. Brit. Med. Jour., 1884, vol. ii., p. 896.
[30] Ziegler: Pathologische Anatomie.
[31] Ackermann: Ein Fall von Phlegmonöser Gastritis mit Thrombose zahlreicher Magenvenen und embolischen Heerden in der Leber und den Lungen. Archiv für Pathologische Anatomie, &c., Berlin, 1869, Band xlv., pp. 39–60.
[32] Asverus: Ein Fall von Gastritis Phlegmonosa Jenaische. Zeitschrift für Medicin und Naturw. Leipzig, 1866, Band ii., pp. 416–482.
[33] Beckler: Ein Fall von Idiopathischer Phlegmonöser Gastritis. Aerztliche Int. Blatt, München, 1880, Band xxvii., p. 403.
[34] Belfrage: Fall af Gastritis Phlegmonosa. Upsala Läkaref Förh., 1872, vol. vii., p. 292.
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[43] Gläser: Zwei Fälle von Gastritis Phlegmonosa Idiopathica. Berliner Klinische Wochenschrift, 1883, Band xx., p. 790.
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[56] Page: A Case of Gastrostomy Fatal on the Twenty-third Day from

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Stewart,[57] and Whipham.[58] Phlegmonous gastritis occurs either as a circumscribed suppuration or abscess or as a diffuse purulent infiltration of the walls of the stomach. Many of the recorded cases seem to have been instances of *local* pus formation or abscess of the stomach. The form to which I desire especially to draw attention is the diffuse or general phlegmonous variety of gastritis. Andral and Cruveilhier were perhaps the first to clearly recognise this *form*. It is undoubtedly but seldom met with. Auvray in *1866* was only able to collect 22 cases, and Leube in 1877 refers to no more than 31. Glax[59] in 1884 was able to bring the number up to 51. Ewald[60] in his classical work states that he had only seen one case and that was at Berlin in Frerichs' ward. The number of recorded cases since this date has been exceedingly small. The rarity of the condition appears to make it desirable that the following case which has recently come under my observation should be placed on record.

The patient, a man aged forty-six years, was admitted, on Sept. 28th, 1895, to the Manchester Royal Infirmary, under the care of Mr. Walter Whitehead, through whose kindness I am enabled to record the case. With regard to the clinical history,[61] the patient had always enjoyed good health. Seven years ago he swallowed a small quantity of turpentine, but suffered from its effects only for a day or two. Five years *since* he commenced to be troubled with irregular attacks of dysphagia associated with vomiting. Sometimes he could take nearly any kind of food, but at other times had to confine himself to "slop diet." He gradually got worse and for the last three months had only been able to take small quantities of liquid food, most of which seemed to him to stop at about the level of the upper part of the sternum and then in a very short time was vomited unaltered. He had never suffered any very distinct pain, but had lost weight during the past few months. On admission the patient, who was an under-sized and somewhat emaciated middle-aged man, could only swallow a very small quantity of milk at a time and most of this was generally quickly returned mixed with much mucus but presenting no evidence of any gastric elements. He appeared to experience no pain. There was no evidence of any glandular enlargement and no indication of any intra-thoracic growth or aneurysm could be detected. On passing a bougie with great care, the patient being allowed to swallow it himself, and no other force being used, it was found to be arrested at a point fourteen inches and a half from the teeth. On withdrawing it there was no blood or particles of growth adherent to it. The stricture appeared to be of a fibrous character. After the first week of observation in hospital careful dilatation was attempted by the passages of bougies on every other day. On several occasions a small-sized instrument was apparently passed into the stomach. After these attempts at dilatation the patient said he could swallow much better and used to beg to have the bougie passed. The general condition of the patient seemed to be improving. On Nov. 8th his temperature, which had hitherto been subnormal, gradually rose, and in the evening stood at 100·4° F. There was no evident cause for this rise except constipation. The rectum was found to contain hard fæcal masses. On this condition being relieved the temperature fell and remained subnormal for several days. Two days previous to his death the patient complained of some little pain in the abdominal region, but it was by no means severe. On the 17th the temperature rose to 100·4°, but there were no indications of any serious condition. At six o'clock on the morning of the 18th he was much worse, and at about eight o'clock was greatly collapsed and only just conscious. He complained of pain in the abdomen and there was a marked sense of impending death. The pulse could hardly be detected and there was some difficulty in breathing. He quickly became unconscious and rapidly sank, dying at 9.30 A.M.

Necropsy.—A post-mortem examination was made the following morning. The following is a summary of the report[62]:—The man was middle-aged, well-formed, but extremely emaciated. There was no undue abdominal distension and no sign of external injury. Rigor mortis was well-marked. With regard to the œsophagus,[63] half an inch above the termination of the gullet there was considerable stenosis for about an inch and a half. The contracted portion was firm and indurated, the thickened walls consisting of fibrous and apparently cicatricial tissue. The mucous membrane was, of course, absent. In the fibrous tissue were several small longitudinal slits or sinuses, passing principally in an upward direction in the submucous tissue. One of these sinuses could be traced upwards for a distance of two inches. Three inches above the stenosed portion the mucous membrane of the œsophagus was found to be bulging inwards over an area one inch and a half in length, and thus considerably obstructing the lumen at this part. On being opened a quantity of thick, curdy, and somewhat fetid pus escaped. The abscess was situated in the submucous tissue between the œsophagus and the posterior wall of the trachea. There was no evidence of any growth. The walls of the œsophagus above the abscess seemed fairly normal, but immediately in its neighbourhood and below it the submucous tissue was infiltrated with pus. The lower part of the œsophagus was, in fact, the seat of an acute septic œsophagitis, infection having apparently occurred from the sinuses present in the fibrous stricture. On tracing the œsophagus down into the stomach the latter was found to be the seat of a diffuse sero-purulent inflammatory exudation. The stomach was normal in size, or, if anything, a little smaller than normal. Externally there were no adhesions. Its serous coat, however, had a peculiar mottled appearance and was of a yellowish-white colour. The whole organ felt very much thickened, but uniformly so, and on raising it seemed very heavy. Its weight, after removal from the body, was twelve ounces. On opening the stomach its walls were found to be much increased in extent, but the increase was general, and from the cut surfaces an abundant sero-purulent exudation oozed out on gentle pressure. The mucous membrane was very congested, swollen, and corrugated, but presented no evidence of any ulceration or growth. There was no sign of any localised bulging into the stomach or perforation of the mucous membrane. The structures between the mucous and serous coats were very markedly increased in extent, forming, indeed, more than half the thickness of the whole wall. It had a yellowish-white glistening appearance, and, as above indicated, consisted principally of pus.[64] The remaining organs presented but little of importance. The peritoneum was congested, but there was no general peritonitis. The duodenum was normal; the purulent infiltration into the walls of the stomach seemed limited by the pylorus. The intestines were congested, small, empty, with a few fæcal masses in the large gut. The omentum was congested. The mesentery still contained a little fat. The liver was small, weighed 35 oz., and was congested. The gall-bladder was distended with bile. The spleen was small and weighed 3 oz. The kidneys were small and congested; their united weight was 7 oz. The bladder was contracted. The heart was small and wasted; the valves were slightly thickened; a few patches of calcareous deposit were found in the aorta; there were slight adhesions in the pleuræ. The lungs were pigmented and congested, but crepitant throughout.

Microscopic examination.—The stomach was hardened in Müller's fluid. Portions after embedding in celloidin were cut and stained by various methods. The following appearances were noted. The mucosa was intensely congested. Between the gland tubules there was considerable cellular infiltration. Towards the deeper part of the mucosa the purulent infiltration was much more marked. The cells were swollen and showed much parenchymatous degenerative change. The muscularis mucosæ was closely surrounded by abundant aggregations of leucocytes. The submucosa was enormously increased in extent and the seat of large collections of pus cells. In many parts the accumulation of leucocytes formed extensive cellular masses, staining deeply with nuclear stains. In some parts of the submucosa granular material and

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Acute Parenchymatous Gastritis. THE LANCET, July 14th, 1883. The same case is recorded by Silcock: Stomach exhibiting the Condition known as Phlegmonous Gastritis. Transactions of the Pathological Society of London, 1882–83, vol. xxxiv., p. 90.

[57] Stewart (Grainger): Case of Gastritis Phlegmonosa, with Inflammation and Gangrene of the Gall-bladder. Edinburgh Medical Journal, 1867–68, vol. xiii., p. 732.

[58] Whipham: Remarks on a Case of Phlegmonous Gastritis. Brit. Med. Jour., 1884, vol. i., p. 896.

[59] Glax (J.): Die Magenentzündung. Deutsche Medicinische Zeitung, 1884, No. 3.

[60] Ewald: Lectures on Diseases of the Digestive Organs. New Sydenham Society's Translations, vol. ii., p. 504.

[61] For details of many points in the clinical history I am indebted to Mr. Cran, house surgeon to the Royal Infirmary.

[62] Manchester Royal Infirmary Post-mortem Reports: Surgical 1892, No. 225, p. 686.

[63] The preparations of the œsophagus and stomach were shown at the Manchester Pathological Society, Jan. 16th, 1895.

[64] The specimen has been added to the Pathological Collection of the Owens College, No. 3240.

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breaking down pus cells formed well-marked areas, which stained but little with the ordinary dyes. The muscular bundles showed considerable infiltration with pus cells and evidence of degenerative changes. The serous coat was also congested, and beneath it were accumulations of leucocytes. The vessels in all parts of the wall were intensely engorged. Examination of the œsophagus at the seat of stricture showed no evidence of growth, but abundant formation of fibrous tissue. The walls of the œsophagus, and especially the submucous tissue, showed extensive infiltration with leucocytes. Sections stained according to Gram's method showed considerable numbers of short rod-like organisms closely resembling the bacillus coli communis in general appearance.

Manchester.

INCONTINENCE OF URINE INHERITED BY AN ENTIRE FAMILY FROM THEIR FATHER.

BY T. K. MONRO, M.A., M.D. GLASG.,
ASSISTANT PHYSICIAN TO THE GLASGOW ROYAL INFIRMARY.

THE following record is of interest on account of the extent to which a single family suffers from this distressing neurosis. My notes were taken some time ago at the dispensary of the Royal Infirmary. The family consists at present of five girls and one boy. Another girl is dead. The first, a girl eighteen years of age, has been very nervous of late and sometimes has epistaxis. In her early days she wetted the bed every night like the other children. She began to suffer from rheumatic fever when aged ten and a half years and was confined to bed for a year. The mother attributed this illness to the patient lying on a mackintosh in a bed wet with urine. Different medical men said she had heart disease and one called it "valvular" disease, but at present no distinct murmur can be made out. This girl first menstruated at fourteen and was thereafter free from incontinence for almost a year, but she began to suffer again when she took to heavy work. She is still troubled occasionally at night and rarely by day. She is worse in this respect before each menstrual period, being better for two or three weeks in each interval. She never had fits. The second, a girl aged sixteen years, has to wear glasses constantly. During the day she has to leave her work so often to micturate that she "thinks shame" and even thus she wets herself occasionally. Like her elder sister, she first menstruated at fourteen, and, like her, she is worse with regard to incontinence for a few days before each menstrual period. When aged two years she had fifteen fits in one night and then slept for two weeks; she has never had fits since then. She had "decline in the bowels" before the fits began. She did not walk till she was about two and a half years old. In her schooldays she was very apt to wet her clothes. The third, a schoolgirl aged twelve years, has not yet menstruated. She suffers much from nocturnal incontinence. She has sometimes to ask to go out of school, but not often. Apart from incontinence she enjoyed good health till two years ago, but she has suffered of late from symptoms suggestive of gastric disorder. She always wets her bed. The fourth child died from whooping-cough, aged six weeks. The fifth, a schoolboy aged eight years, has given trouble almost since he was a baby by wetting the bed. His mother has found that he has wetted it as often as six times in one night. He has a high palate, and until three years ago was subject to fits, in which he would get stiff, froth at the mouth, and lose his senses. The fits began at the age of two years; he would have one severe fit at a time and then remain free for about six months. In the first one he was stiff and white; in the last his hands and feet turned inwards. The sixth, a schoolgirl aged six years, enjoys good general health, but wets her clothes by day and her bed by night. The seventh, a girl aged five years, not yet at school, does not go out much, even to play, and so does not wet her clothes by day. She wets the bed, however, perhaps once in each night. The father suffered from nocturnal incontinence till he was a big lad, but not since his wife has been acquainted with him. He is said to be nervous, but his wife is not aware that he ever had fits. He has a brother who is free from nycturia. This brother has six boys and a girl, and all of these are free from incontinence. No other relatives are known to suffer from incontinence or from fits.

There is but little to add on the subject of treatment. The mother used to put mackintosh sheeting on the beds, but since one of her daughters suffered severely from rheumatism, apparently in consequence of lying on a wet bed, she has made the children lie on straw mattresses, which absorb the urine and are dried every morning on which they are found wet. As this drying is done in the yard of a tenement in this populous city the curiosity of neighbours is naturally aroused, and this constitutes one element in the distress entailed upon this unfortunate family by their unwelcome inheritance. One of the girls visited the dispensary, but, as the mother afterwards explained, she did not like to be questioned about her infirmity and so would not continue to attend; the boy came several times. Belladonna in increasing doses did him no appreciable good, and instructions were then given to apply a blister to the back of the neck. None of the family has returned to tell the result. If the mother and the patients were disposed to persevere in their efforts to obtain a cure, I should be inclined to ask a surgeon to apply a mild caustic to the neck of the bladder, waiting to observe the result in one of the children before operating on the others. The mother, however, gives one the impression that she is resigned to her lot, and not likely to persevere long with any treatment which does not at once yield decided results.

Glasgow.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

AN UNUSUAL CASE OF EMPHYSEMA OF THE ORBIT.

BY CHARLES RAMAGE, M.D. EDIN.,
LATE HOUSE SURGEON, MANCHESTER ROYAL EYE HOSPITAL.

A MAN aged twenty-seven years received a very severe blow over the left eye at 9.30 P.M. on Jan. 12th, 1896. At the time of the injury the back of his head was against a wall, and the force employed was great enough to render him unconscious for over twenty minutes and to cause very profuse epistaxis. When I saw the patient on the day following the injury the eyelids were greatly swollen and a slight cut existed about the middle of the upper one, while the lower was of a reddish purple colour. Palpation revealed a peculiar crepitating feeling due to effusion of air into the cellular tissue, which extended upwards over the eyebrows slightly on to the forehead and downwards over the malar. There were great proptosis and subconjunctival ecchymosis, though the eyeball was freely movable, was of normal tension, with an active pupil and vision = $\frac{6}{9}$. The remarkable fact was the marked paresis of sensation on the left side of the nose, accompanied by loss of smell on the same side. The nasal bones were perfect and the supra- and infra-orbital nerves were unaffected. These facts would seem to indicate that there had been a fracture of the anterior fossa of the base of the skull dividing the nasal nerve and branches of the olfactory nerves. Treatment consisted in insufflation of iodoform into the left nostril, with the use of purgatives and a firm compress over the orbit. The eye symptoms disappeared in a fortnight, though sensation on the left side of the nose and the sense of smell are still defective.

Leicester.

TWO CASES OF GANGRENOUS STOMATITIS, ONE ENDING FATALLY.

BY R. MILBOURNE WEST, M.R.C.S. ENG., L.R.C.P. LOND.

CASE 1.—A healthy-looking woman aged twenty-eight years sent for me on Nov. 24th, 1895, suffering from what appeared to be ordinary tonsillitis threatening quinsy. Both tonsils

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were red and swollen, the left particularly so; the cervical glands were enlarged; she had considerable pain and difficulty in opening the mouth, with dysphagia. Her temperature was 102° F. There was no membrane and no albuminuria. She was ordered gargarisma Condii and glycerinum acidi tannici. On the following day she appeared to be worse, there being complete dysphagia, fluids running out of the corners of her mouth, together with insomnia. The left tonsil was covered with a grey slough the size of a threepenny-piece, which was easily detached, leaving a fairly deeply excavated ulcer, which was swabbed with glycerinum acidi carbolici. On the 26th the right tonsil and most of the soft palate were involved in the sloughing. Her general condition was weaker, she having taken very little nourishment. Local treatment could only be applied with difficulty, owing to the patient's objections. On the 27th the uvula sloughed off. The soft tissues covering the hard palate had become involved. She had an attack of dyspnœa, which, however, passed off. On the 28th she died suddenly, apparently from heart failure. The whole of the uvula, soft palate, and left tonsil, part of the right tonsil, and the soft tissues covering the bony palate were destroyed.

CASE 2.—A son of the above patient, aged eight years, and living with her, was taken ill on the same day as his mother with similar symptoms, though in a milder degree. His temperature was 103° F. Both tonsils were involved, the sloughs on separating leaving deep ulcers and in some parts completely destroying the soft palate and tonsils. He was treated throughout with glycerinum acidi carbolici and occasional washing out with antiseptic solutions. He did well and was convalescent by Dec. 3rd, having lost both tonsils and part of his soft palate.

The above cases are of interest as showing the extreme rapidity of the disease, thus resembling cancrum oris in infants. Two patients in one household having been attacked points to the malady being infectious—indeed, the elder patient died apparently from acute septicæmia. The disease differed materially from diphtheria in the deep and extensive sloughing, being not merely an exudation on to the surface and into the more superficial parts; also in the entire absence of albuminuria, and, in the younger patient, in the absence of paralytic sequelæ.

Leicester.

SUBCUTANEOUS EMPHYSEMA OCCURRING DURING LABOUR.

By G. L. FREEMAN, L.R.C.S. & P. IREL.

HAVING recently met with the following case I shall be glad to have from any of the readers of THE LANCET an opinion as to the site and the predisposing cause of the rupture in the respiratory passage. I have consulted several text-books on the subject, but can get no information. About 6 A.M. on Dec. 1st, 1895, I was called to a primipara in the first stage of labour. She had been ill since 11 P.M. the previous night, and was nervous and excitable till the second stage began at 8 A.M. Labour terminated naturally about 11 A.M. During the second stage the pains were very severe and she became much quieter, holding in her breath and bearing down. About an hour before delivery she said her face felt tight and was swollen; on inspection it was seen to be full, but no further notice was taken, and she turned away her head, covered it with a pillow, and remained so till the child was born. Then, when she turned round, her face was seen to be enormously distended as well as her throat, shoulders, and chest down to about the third ribs, and the swelling had the typical crackling feeling of subcutaneous emphysema. She complained of breathlessness and a feeling of constriction about her throat. In her efforts to expel the placenta the swelling obviously increased and the breathlessness became aggravated. Firm downward pressure on the neck relieved her temporarily, and after the removal of the placenta the difficulty gradually subsided. Towards night the swelling was considerably diminished, and on the morning of the 4th there was no trace of the condition. She was a slight, spare, healthy woman twenty years of age with a good previous history.

Wishaw, N.B.

A Mirror OF HOSPITAL PRACTICE BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et earum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus.* lib. iv. Proœmium.

ST. GEORGE'S HOSPITAL.

A FATAL CASE OF PANCREATITIS WITH HÆMORRHAGE.

(Under the care of Dr. ROLLESTON.)

FROM time to time, at considerable intervals, cases of acute pancreatic inflammation are published in our columns and in those of our contemporaries. The disease is one which, although rare, presents peculiar symptoms, resembling sometimes those presented in cases of intestinal obstruction, and others causing a strong suspicion that the patient has been poisoned. It is, therefore, most important that all cases should be published when they have been carefully observed and are real contributions to our scanty literature on the subject. Fitz[1] made a careful summary of the cases previously reported of acute pancreatic disease, collecting altogether 17 instances of hæmorrhagic, 22 of suppurative, and 15 of gangrenous pancreatitis, besides cases of hæmorrhage into the pancreas. He came to the following conclusions. The disease represents a serious complication of what, by itself, is a relatively simple affection—viz., gastroduodenitis; it is an important cause of peritonitis, and one readily overlooked; it has been repeatedly confounded with acute intestinal obstruction and has thus led, in several instances, to an ineffective laparotomy, an operation which, in the early stages of this disease is extremely hazardous." Dr. Day[2] has recorded a case in which transient jaundice was noticed. His patient died suddenly in collapse. For the notes of the case we are indebted to Dr. J. Blumfeld, house physician.

A man aged thirty-one years was admitted to hospital at 12.30 P.M. on Feb. 24th, under the care of Dr. Rolleston, complaining of pain in the abdomen. Four years previously he had a severe attack of epistaxis which caused him to lie up for a week. Three years before he had a similar but less severe attack. With these exceptions he had always been a healthy man. He was a drinker of beer, but never the worse for drink. There was no history of injury to the abdomen. As regarded his present illness he was in usual good health till about 11.30 on the morning of Feb. 23rd. At that time, while doing light work in his backyard, he was seized with great pain "about the middle of the stomach," which caused him to lie down on a sofa. He was bent with the pain, but it did not make him faint. By 1 P.M. it had passed off sufficiently for him to enjoy a dinner which included roast mutton. Soon after the meal the pain recurred as intensely as at first. He took some castor oil to remove it, and this failing repeated the dose later in the day. He could take no food now except a little milk. The pain persisted till he went to bed and kept him awake at night. About three o'clock on the Monday morning he retched several times and vomited a very small quantity of fluid with a teaspoonful of blood. Being no better by midday he was driven up to St. George's Hospital. The bowels had not acted since the beginning of the attack. They last acted on the Sunday an hour or two before the pain came on. On admission the patient was found to be a healthy-looking stoutish man. The face had a good colour and did not show pain or anxiety; the voice was weak. He was quietly restless and had a peculiar alertness of manner. He lay on his back in bed, the legs not drawn up. The tongue was moist and pale. The abdomen showed some general distension, particularly in the epigastric region. It moved well, but not perfectly, with respiration. Liver dulness was present to the normal extent, and there was a tympanitic note over the normal stomach area. Elsewhere in the abdomen the percussion note was resonant. There was tenderness on pressure about half way between the ensiform cartilage and the umbilicus, but anywhere else even firm pressure did not

[1] Medical News, Feb. 23rd, 1889. Sajous, 1890, vol. i., C24.
[2] Boston Medical and Surgical Journal, Dec. 15th, 1892.

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cause pain. He complained of pain "round the bottom of the ribs," in the umbilical region, and particularly "in the small of the back." The heart and lungs were normal. The temperature was normal and the pulse 90. He was ordered hot fomentations to the abdomen and a common enema, to be followed by nutrient enemata every four hours. At 6 P.M. the temperature was 103° F. The condition seemed to be otherwise unchanged. He had passed only about an ounce of urine of normal character. The enema brought away a few scybala. Four hours later the pulse was 132, the hands very cold, and the temperature 95°. He complained of thirst, but the tongue was still quite moist. The face showed no particular distress, but restlessness was continuous, the patient never lying quite still, yet never making any great movement. The rectum was examined and found to be very widely dilated and empty. The bowels had not acted spontaneously and no more urine had been passed. Mr. Warrington Haward saw the patient in consultation with Dr. Rolleston, and it was decided that although there was obviously some very grave mischief within the abdomen the condition of collapse prohibited laparotomy. He was kept wrapped in blankets, surrounded by hot bottles, and treated by nutrient enemata and hypodermic injections of morphia. The collapse lasted through the daytime of Feb. 25th. The pulse, 140 counted at the heart, became imperceptible at the wrist. The abdomen was considerably distended, but still moved fairly well with respiration. The tongue remained moist. A few râles were heard at the right base. Nutrient enemata were now no longer retained, one being returned with a considerable amount of fluid fæces. The man became delirious and made one attempt to get out of bed. At 9 P.M. the temperature rose to 103°, the face became drawn and pale, with livid lips and nose, and the patient lay curled on his side gasping till death, which occurred forty minutes later.

Post-mortem Examination.—This was made sixteen hours after death by Dr. Cyril Ogle, from whose notes the following account is, by his kind permission, abstracted. There was fibrous puckering at both apices of the lungs; the right lower lobe was deficient in air. A few small hæmorrhages were found beneath the visceral pericardium on the posterior surface. The liver was large, soft, and fatty. The kidneys were normal. The adrenals were also normal, but embedded in blood-clot. There was no general peritonitis, red lines, or lymph. A few ounces of turbid serum were present in the pelvis. The mesentery, especially on its left aspect, showed blotches and streaks of white opacity, having the appearance of "fat necrosis." This condition was well seen on the peritoneum in front of the left adrenal. It was not seen in the fat of the abdominal wall, the great omentum, on the appendices epiploicæ, or in the fat round the kidneys. Behind the peritoneum, infiltrating the tissues in front of the pancreas and also particularly below it, there was blood-clot of a chocolate colour. This layer of blood was about three-eighths of an inch thick and had spread to the sides covering the front of each kidney and suprarenal. The semilunar ganglia and their branches were enveloped by it and the root of the whole mesentery infiltrated with it. Lying behind the stomach enclosed in the sac of the omentum were several ounces of fluid like milk. The surface of the stomach had recent soft lymph on its posterior aspect. The pancreas, on section, presented a remarkable appearance. The lobules were distinct, but between them there was opaque white material like putty; a layer of this also lay on the surface of the pancreas. This change of tissue was much more marked as regards the head of the organ. The creamy fluid above mentioned lay between the stomach and the pancreas. Sections of the pancreas, hardened and stained with picrocarmine, as well as those made and examined when fresh, showed that there was abnormal material between the lobules of the organ. This had nowhere the appearance of blood, and the sections altogether gave no evidence of hæmorrhage into the pancreas itself. The interlobular material referred to appeared to be mainly of a necrotic nature. It contained in some places large numbers of small fat crystals and showed other evidences of being necrosed fat; elsewhere it contained cells that under a high power greatly resembled pus cells. These appearances suggested interstitial inflammation and fat necrosis.

Remarks by Dr. BLUMFELD.—The case has interest and importance in two ways—from the clinical point of view and from the pathological. Clinically, a correct diagnosis in such a case would save the patient from a needless operation that could not possibly increase his chance of recovery and would presumably hasten his death. For, judging from the post-mortem appearances, it would have been extremely difficult to have got at the chief collection of blood and quite impossible to remove it, infiltrated and clotted as it was into the tissues. Moreover, even if the blood were removed there remained the diseased pancreas, which presumably caused the hæmorrhage and might well have led to further extravasation. The history gave no help to diagnosis: there had been no injury or blow such as might have caused hæmorrhage. Could the condition have been diagnosed from the course of the symptoms? There are points in which the case differed, perhaps, from what is seen in the presence of either of the two most probable alternatives—viz., perforation of the stomach or appendix or acute obstruction. The sudden onset of pain and collapse—followed by relief and then by recurrence—are not unusual with perforation, and the great pain in the back, which pointed to the deep seat of the lesion, might have been accounted on the supposition of a duodenal ulcer. But had the persistent pain and the gradually increasing seriousness of the man's condition till it reached one of extreme collapse been due to perforation they would have pointed to the presence of general peritonitis. And in that case would they not almost certainly have been accompanied, at a period as late as two days after the first onset, by absence of abdominal movement with respiration and by the presence of great distension? Neither of these signs showed themselves in this case; but it must be admitted that peritonitis, even when general and severe, is sometimes latent. Again, had the case been one of obstruction the almost entire absence of vomiting and the perfectly moist tongue would have been very exceptional when the extreme collapse and the situation of pain would have pointed to a tight constriction high up in the intestine. It seems possible that continued restlessness, with gradually increasing collapse, with absence of extreme distension and the presence of good respiratory movement of the abdomen, might possibly in another case suggest inflammation or hæmorrhage in the neighbourhood of the pancreas and the solar plexus. Such a consideration might in an obscure abdominal case with much collapse make one hesitate before having resort to laparotomy as a forlorn hope, since, in addition to the danger that the patient may die on the table, there is the possibility that the condition is one of shock due to a lesion beyond relief from surgery. Though laparotomy is not a harmless procedure, it often requires in these days more courage to abstain from than to recommend operative interference in abdominal cases. Early operation in obstruction is invaluable and any postponement after the initial collapse has passed off deplorable, but if the collapse be permanent and progressive the surgeon would be wise, as in this case, to discountenance operative measures. As regards the pathology of the case the post-mortem appearances, both macroscopic and microscopic, prove it not to have been a case of hæmorrhagic pancreatitis.[3] There was extensive hæmorrhage and evidence of an interstitial lesion of the pancreas of an inflammatory nature, but no evidence of hæmorrhage into the pancreas itself, so that it is rather a case of pancreatitis with hæmorrhage than hæmorrhagic pancreatitis. The fat necrosis was limited to the neighbourhood of the pancreas, but was not extensive enough to suggest that the fat necrosis was the primary lesion which by coalescing had led to necrosis of the pancreas. Supposing the pancreatitis to cause the hæmorrhage, as it might do by spreading to and opening a vessel, or secondarily bringing this about through one of the numerous areas of fat necrosis it causes,[4] there is still to be sought the origin of the pancreatic disease. On this point opinion is at present somewhat speculative, but it has been suggested that perhaps the pancreas is liable to an acute infective inflammation such as we are familiar with in the parotid under the name of mumps.[5] A peculiar feature in this case is the association of marked collapse with an irregular temperature reaching on two occasions to 103° and varying somewhat rapidly. Possibly an explanation for this is to be found in the serious damage which the hæmorrhage must have inflicted on the sympathetic plexuses of the abdomen.

[3] Cf. Middleton-Goldsmith Lecture, 1889. By Dr. Fitz, Boston.
[4] Compare case recorded by Dr. A. James, Brit. Med. Jour., 1896, vol. i., p. 533.
[5] Vide Traité de Medecine: Charcot, Bouchard, and Brissaud, vol. iii., p. 407.

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Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Annual General Meeting.—Excision of Portion of Liver for Tumour.—Case of Neoplasm Cyst of the Brain treated by Operation.

THE annual general meeting of the society was held on March 2nd, Mr. HUTCHINSON, the retiring President, being in the chair.

The report of the council was read and disclosed a satisfactory numerical and financial position. The number of Fellows at the present time was 787, and during the year ten Honorary Fellows had been elected. Sixteen Fellows had died, including Mr. Huxley, M. Pasteur, and Baron Larrey. The President's annual address, after referring with satisfaction to the working of the new regulations with reference to the reading and publication of papers, mentioned the three special debates which had been a feature of the society's work during the past year. They had been held upon the Early Syphilitic Affections of the Nervous System, on the Latency of Specific Micro-organisms, and on the Malarial Parasite. The customary obituary notices of deceased Fellows closed the address, and after the usual votes of thanks had been passed, the officers and council were elected to serve during the ensuing year. The following list was chosen:—President: William Howship Dickinson, M.D. Vice-Presidents: John Harley, M.D., James Edward Pollock, M.D., John Langton, and Sir William MacCormac. Honorary Treasurers: William Selby Church, M.D., and J. Warrington Haward. Honorary Secretaries: Norman Moore, M.D., and Robert William Parker. Honorary Librarians: Samuel Jones Gee, M.D., and Rickman J. Godlee, M.S. Members of Council: John Abercrombie, M.D., William Ewart, M.D., David Ferrier, M.D., Felix Semon, M.D., Francis Charlewood Turner, M.D., Arthur Edward J. Barker, Sir William B. Dalby, John Hammond Morgan, Edmund Owen, and Robert Alexander Gibbons, M.D.

Mr. HUTCHINSON then formally installed his successor in the chair of office and Dr. Dickinson was duly invested with the medal of the society and presented with the master key with the usual formalities. The new President having returned thanks the society adjourned.

An ordinary meeting of this society was held on March 10th, Dr. DICKINSON, the newly-elected President, being in the chair.

The PRESIDENT, on taking the chair, said he desired to express a word of sincere thanks to the Fellows for his elevation to the head of the greatest Medical Society in the British Empire. He had thought over what he could do to enhance the importance and dignity and position of the society. He wished to throw out some hints which were for discussion hereafter. He considered it would be a great thing if the society could place itself in the way of being regarded as a kind of court of appeal in scientific and other matters relating to the profession. Years ago Sir Henry Pitman, when secretary, mooted the subject of fusion of the various societies to form an Academy of Medicine, but this did not meet with the approval of the other societies, and it had since been brought up again but had met with a similar fate. He was enough of a conservative in medical matters to wish the society to retain continuity of tradition, and therefore he did not approve of the alteration of name to that of "Royal Academy of Medicine." He thought, however, that something might be done in the way of standing committees. Many good results had followed in the past from committees, and some of them by their reports had brought about a distinct change in the current of medical thought, as, for instance, the Diphtheria Committee. The objection to such committees was that they died a natural death when they reported. It would be highly desirable that some of these committees should be perennial; the same members need not serve continuously, but a proportion of them might be changed each year. This was a fate which might well happen to the Committee on Climatology and Balneology, for such a central committee eliminated local influence, and hence its conclusions were likely to be more impartial than reports from local sources. He thought, also, that the society should advance in a social direction. It would be a gain if on only one evening of the session the elder members met the younger and talked informally concerning matters which were for the good of the profession. To this might be added a dinner, held in the society's house or elsewhere, every year or every second year. These innovations, he said, would tend to weld the society into a united and harmonious body. He concluded by saying that he would not grudge any time or trouble he could devote to promote the further welfare of the society.

Mr. MAYO ROBSON then read a paper on a case of Excision of a Portion of the Liver for Tumour. The notes described the removal of the gall-bladder and a considerable portion of the right lobe of the liver from a woman aged fifty-four, the patient having made an uninterrupted recovery. The operation was performed for a rapidly-growing tumour of the gall-bladder, which on exposure appeared to be malignant, and as there was only one nodule of the disease evident in the liver, and that in close proximity to the distal end of the cystic duct, it was thought desirable to remove at the same time the portion of liver affected. The mass after removal weighed, without any of the gall-bladder, half a pound. Microscopic examination showed the disease to be carcinomatous. After a description of the method of operating Mr. Mayo Robson remarked that the case showed the danger of ignoring the presence of gall-stones, although they might be producing no acute symptoms. He had no doubt that the irritation of such foreign bodies in the gall-bladder and ducts was frequently a direct cause of malignant disease, and in this he was supported not only by his own operative experience, but by the abundant experience of other observers. The after progress of the case was of extreme interest, as not only was recovery uninterrupted, but the patient neither suffered from shock nor had the temperature or pulse above normal. Moreover, she began to improve in her general condition almost immediately, and on her return home, in the sixth week after operation, she had gained strength and weight. The use of the elastic écraseur and other details of the operation had answered so well that Mr. Mayo Robson did not think it necessary to recommend any different procedure from the one he had described in any future removal of a portion of the liver.—The PRESIDENT said that he had always regarded the gall-bladder, like the vermiform appendix, as of very little use, but after what had been discovered with regard to the thyroid gland he hesitated now to express a positive opinion in that direction.—Mr. GODLEE congratulated Mr. Mayo Robson on the success of his case. He inquired how the needles had been placed to retain the elastic ligature and if the method would be applicable in the case of a smaller liver. He was afraid that no surgeon present had any similar experience to bring forward.—Mr. A. E. BARKER said that there was a case on record (although he could not recall the reference) of the removal of a carcinomatous mass from the liver with success so far as the immediate result was concerned. He feared that there was little hope of permanent cure in most of these cases.—Mr. BARWELL inquired how large was the surface of the liver stump, and also what was the covering of the liver afterwards, whether thin stretched cicatrix or skin, and whether there was any discharge or exudation from the scar. The diagnosis of epithelioma, he thought, was not correct; it was more probably encephaloid carcinoma.—Dr. NORMAN MOORE remarked that the new growths in the gall-bladder and common bile duct often had no remote secondary growths, and he recalled two cases in both of which the growth sprang from the common bile duct and remained localised to that structure. The same was true to a rather less degree of the gall-bladder, for there might be a local growth extending from the gall-bladder into the liver in its neighbourhood. He had found that in instances of malignant disease gall-stones were present in association in less than half the cases, and, *per contra*, the great majority of cases of gall-stones were free from cancer. In cases of carcinomatous obstruction of the common bile duct, however, gall-stones was frequently a secondary effect.—Dr. ROLLESTON remarked that he had found that malignant disease of the gall-bladder was commoner than of the bile duct. Most often the gall-bladder cancer was cylindrical-celled carcinoma, and in only one case placed on record by Dr. Hebb, was the carcinoma of the squamous variety. In bile-duct cancer the columnar-celled variety only was found. Of 100 cases of malignant disease of the gall-bladder 68 were found to be associated

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with gall-stone, and in these it was remarked that the gall-stone appeared to be antecedent to the cancer. In 28 cases of cancer of the bile duct gall-stone was less proportionately numerous, being present in less than half the cases. In only one case of the whole series did gall-stone appear to be secondary to malignant disease. Keen had operated on an enlarged liver, and removed what appeared to be an adenoma in relation with the bile ducts, a condition probably closely related to carcinoma.—The PRESIDENT said he had long been accustomed to believe that in cases of associated cancer and gall-stone the gall-stone formed first and the carcinoma afterwards. He mentioned the case of an elderly woman in which he had been able to trace this sequence. He had seen her first with gall-stone and obstructive jaundice, and many years afterwards he saw her again with a large localised tumour in the region of the gall-bladder, the malignant nature and origin of which was confirmed at the necropsy.—Mr. MAYO ROBSON, in reply, said that he had often been struck with the way in which gall-stone had caused cancer. In Keen's case he believed that the tumour was a pedunculated one. The scar left after the operation was only of the size of the tip of the finger. He believed that the method he had adopted was only applicable to those cases in which the liver projected beyond the edges of the ribs. The stump after removal was as large as his wrist.

Mr. BALLANCE next read a paper on a case of Neoplasm Cyst of the Brain treated by Operation. The patient was a boy aged eleven, who was admitted to the National Hospital for the Paralysed and Epileptic under Dr. Gowers in October, 1890. Six months before he had had a severe blow on the head. Since the injury he had suffered successively from the following symptoms: irritable temper; fits, commencing with twitching of the right angle of the mouth and followed by paralysis of the lower part of the right side of the face; the gradual extension of the paralysis to the right upper and lower extremities; slow speech; severe frontal headache and purposeless vomiting. After admission to the hospital these symptoms increased in severity and double optic neuritis was observed. In November, 1890, a portion of bone was removed by means of the trephine from over the region of the lower part of the left motor cortex. A sub-cortical cyst was found and evacuated. The symptoms disappeared. In February, 1891, as the symptoms returned, a tube was passed into the "cyst" in order to drain it continuously. The symptoms then in most part disappeared, and the boy remained in fairly good health until January, 1893, when his condition rather suddenly became exceedingly grave. Another operation was performed, and a tumour three ounces in weight was removed from between the dura mater and the left motor cortex. The boy left the hospital quite well, except for very slight hemiplegia, in June, 1893. He was readmitted in September, 1893, in an almost moribund condition, and died a few hours after another attempt was made to relieve the symptoms of pressure by operation. At the necropsy an enormous tumour was found situated in the left cerebral hemisphere. After narrating the case in full Mr. Ballance made some remarks on (1) the diagnosis of the case; (2) the intermission of symptoms in brain tumour; (3) the connexion between trauma and brain tumour; (4) the enormous size of the tumour and the slightness of the symptoms; (5) the twitching of the index finger; (6) the value of cranio-cerebral topography of the scalp; (7) the use of platinised silver tubes for drainage; and (8) the hæmorrhage from the bone in this case. Lastly, the questions were asked: Was the proper surgical treatment adopted? What did this case of tumour of the brain gain by surgical treatment?—Dr. FERRIER and Dr. HALE WHITE took part in a discussion, and Mr. BALLANCE replied.

MEDICAL SOCIETY OF LONDON.

Address on the Physiology and Pathology of the Thyroid Gland.

AN ordinary meeting of this society was held on March 9th, the President, Sir JAMES CRICHTON BROWNE, being in the chair.

Professor VICTOR HORSLEY gave an address on the Physiology and Pathology of the Thyroid Gland, of which the following is a short abstract, illustrating his remarks by a series of limelight projections. He recalled the fact that as far back as 1859 Professor Schiff pointed out that the thyroid gland, previously supposed to possess no particular function, was essential to life. His views, however, were lost sight of, but were reopened in 1884, when that observer definitely proved that the removal of the gland was followed in carnivora by striking symptoms since recognised, thanks to the clinical and pathological observations of Dr. Ord and others, to be those of the disease now known as myxœdema. The lecturer pointed out that as Professor Schiff's experiments had been carried out exclusively on carnivorous animals, to whom the thyroid gland was so necessary to life that they succumbed within a short time of its total removal, no opportunity occurred for him to observe the changes which followed when the fatal result was slower in its advent. He himself had therefore decided to carry out his own investigations on herbivorous animals, taking special care not to injure the nerves which were found in the vicinity of the thyroid gland. He recalled that the results of these experiments, having for result the production of artificial myxœdema in the monkey, had been challenged on the ground that the symptoms, such as they were, were due to injury to the sympathetic nerves. He expressed surprise that the sympathetic theory should ever have found credence—the more so because it was evident that a constitutional disease such as myxœdema implied some profound chemical change in the fluids of the body. The accuracy of the results he had obtained in this direction had ultimately been proved from another point of view by Dr. Murray, who, proceeding on a strictly logical basis of reasoning, had proved that the effects of deprivation of the thyroid function could be overcome by the administration of the juice of the gland. By the aid of photographs projected on to the screen the lecturer proceeded to show the relationship of the para-thyroid bodies, internal and external, to the main body of the gland and by the same means he described the histology of these accessory bodies. He showed that the para-thyroid bodies underwent hypertrophy *pari passu* with the gland itself when this latter enlarged after the removal of one lobe. The structure of these bodies was shown to consist of columns of cells separated by a network of capillaries. After illustrating the histology of compensatory hypertrophy he contrasted this with the changes observed in association with myxœdema. In the former the cubical epithelium lining the acini gradually underwent a change into columnar, while the acini themselves from being spheroidal became branched clefts. Sections of the gland from cases of exophthalmic goitre displayed appearances which greatly resembled those of an acinous gland, the colloid substance being replaced by more or less fluid contents or containing granular particles. He demonstrated the method of secretion of the colloid matter, of which droplets were shown exuding from the cells lining the walls of the acini. He stated that the vacuolation of the nuclei of the fat cells met with in myxœdema was a phenomenon frequently met with in other conditions, as, for instance, in old age, &c. He believed that this vacuolation did not authorise any conclusion as to the nature of the disease.

Sir WILLIAM ROBERTS, in proposing a vote of thanks to Professor Horsley for his address, remarked that as cellular pathology was long since familiar to all of them, so cellular treatment seemed to be coming into vogue. Raw kidney had been administered in cases of renal disease, with what result could only be told later on. Perhaps a similar treatment might be suggested in cases of damaged liver, and it might be remembered in this connexion that the succulent portion of an oyster consisted of its liver. Raw milk and fruit, salads, and underdone meat formed a regular part of the diet of man, and he held that the practice of mankind in all these matters might have a profound and deeper meaning.

Dr. MITCHELL BRUCE, in seconding the vote, said that in the subject under consideration, as well as in antiseptic surgery, pathology and therapeutics had gone hand-in-hand, and he thought that there was hardly a limit to the possible pathological results of researches such as these.

Professor HORSLEY, in reply, said that the scientific basis of the treatment by thyroid extract was on a little different footing from other so-called gland treatment. Dr. Murray had pointed out that if the loss of the gland had produced symptoms of myxœdema it was logical to return the gland to the system. To give kidney substance when the kidneys were destroyed was not the same thing, for the kidney was an excretory organ having a duct. The extravagances of the so-called gland treatment could not be too strongly deprecated. The administration of brain substance at Queen-square had been found to be of no effect.

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OBSTETRICAL SOCIETY OF LONDON.

Adjourned Discussion on Abdominal Hysterectomy with Intra-peritoneal Treatment of the Stump.—Exhibition of Specimens.

THE adjourned discussion on Mr. HARRISON CRIPPS' paper, Abdominal Hysterectomy with Intra-peritoneal Treatment of the Stump, was continued at the meeting held on March 4th, Dr. F. H. CHAMPNEYS, the President, being in the chair.

Dr. CULLINGWORTH, in opening the discussion, said he considered that the paper reflected the change which was gradually being effected in the attitude of the profession towards operations for myoma of the uterus. There could be no doubt that these operations were becoming more frequent, this being due to the diminution of mortality consequent upon antiseptic methods and improved technique. There were cases on record in which so far from the tumours ceasing to be a source of trouble and inconvenience at the menopause, as is usually considered to be the case, dangerous complications, such as extensive œdema, malignant change, and even gangrene, have set in some years later, with consequences fatal to the patient. He himself considered surgical interference necessary, first, when it became evident that degenerative, cystic, or other changes were taking place; secondly, when the rate of growth had begun suddenly to increase; and, thirdly, when, after the menopause, the tumours were obviously increasing in size. With regard to the mode in which infection had taken place in the author's fatal case, he thought the author had expressed himself more absolutely than the facts warranted. The statement in the last two lines of the abstract ran thus: "There was one death from sepsis due to infection from the vagina." He thought it would have been well to state this rather as an opinion than a fact. He considered the vagina was blamed somewhat too readily as a channel of infection. Dr. Cullingworth then gave a short extract of all his cases of oöphorectomy for fibroids.

Dr. PETER HORROCKS looked upon abdominal hysterectomy with extra-peritoneal treatment of the stump as a barbarous operation, and he considered that if the intra-peritoneal method could be perfected it was greatly to be preferred. He agreed with nearly all that Dr. Cullingworth had said, but he would like to ask over how many years the thirty or forty operations mentioned by him had been spread. He thought it unfair to compare operations performed during the last year or two with those performed earlier, when asepsis was not so certainly secured. He had performed abdominal hysterectomy for fibroids by Baer's method four times, with one death. The three recoveries were all that could be desired in freedom from pain, absence of pyrexia, and speed of convalescence. The fatal case was in great part, if not entirely, due to the complication of renal disease. He did not think that drainage of the pelvic cavity by means of a tube through the abdominal wound would be satisfactory because the small quantity of serum exuded from the seat of operation could be easily absorbed.

Mr. MEREDITH expressed his dissent from the views of previous speakers as to the grave risks of septic infection entailed by the extra-peritoneal method. His own experience, founded upon nearly a hundred cases, was certainly opposed to their statements. No instance of septic infection from the uterine stump after the removal of the serre-nœud and pin had occurred in his practice. Mr. Cripps, in his abstract, had referred to obstruction of intestine or ureters as dangers entailed by the use of the serre-nœud; but he (the speaker) saw no reason why either of these accidents should result from a skilfully performed operation. Regarding the question of presumed analogy between the state of things left after vaginal hysterectomy and that entailed by the so-called intra-peritoneal treatment, Mr. Meredith considered such analogy faulty, inasmuch as in the former instance the cervix as a possible source of infection is non-existent; the cellular tissue of the broad ligaments is in great measure protected by the ligatures, and there is every facility for free pelvic drainage. In the latter case the cervix remains *in situ* with its stump covered in by flaps of peritoneum enclosing a potential cavity whence there is no means of escape for effused serum or blood excepting through the cervical canal, a state of things most favourable for the development and extension of sepsis, especially if the adjoining broad ligaments have been opened up. While fully prepared to recognise the advantages of a perfect method of intra-peritoneal treatment of the stump he should certainly for the present continue to use the serre-nœud.

The PRESIDENT said that as regards the indications for operations on fibroids it must be remembered that nothing was commoner than the presence of a fibroid growth of great or little size in a woman who was and felt that she was quite well. So that on one side it must be admitted that the majority of cases need no treatment at all, still less a dangerous operation; and we must also remember that we have to face an operation of exceptional danger. The number of cases in which operation is justifiable or desirable must, generally speaking, be regulated by the ascertained risks of the tumour against the ascertained risks of the operation; the former must exceed the latter before operation can be justified. The question of intra-peritoneal or extra-peritoneal treatment must be decided for the present on the grounds of relative mortality. If the clamp still gave the best results it could not be justly described as an obsolete operation. Whenever the two methods showed equally good results the advantages of the intra-peritoneal method were so obvious that it would finally displace the other. For some cases it might already be the preferable operation; but the choice must be made on the grounds of safety, for he thought anyone would prefer having his life saved by a "barbarous proceeding" to being killed by the most advanced "surgical triumph."

Mr. HARRISON CRIPPS briefly replied.

The following specimens were exhibited:—

Dr. AMAND ROUTH: (1) Fibroid Tumour and Cancer of the Uterus; (2) Combined but independent Cancer of Body and of the Cervix of the Uterus.

Dr. GALABIN: (1) Double Ovarian Tumour (one dermoid) removed during pregnancy; (2) Combined Cancer and Fibro-myoma of the Uterus removed by Baer's operation.

Mr. SIDNEY TURNER: Healthy Right Kidney and Remains of Left Kidney (hydro-nephrosis).

Dr. LEWERS: (1) Malformed Fœtus with cystic tumour of neck; (2) a section showing Chorionic Villi from a Tubal Mole.

EPIDEMIOLOGICAL SOCIETY.

Post-scarlatinal Diphtheria.

A MEETING of this society was held on Feb. 21st, Mr. SHIRLEY F. MURPHY, President, being in the chair.

Dr. E. GOODALL in introducing the subject of Post-scarlatinal Diphtheria or diphtheria complicating and following other acute specific diseases, referred to a paper read by Dr. Sweeting in that room three years previously dealing with the age incidence, seasonal prevalence, &c., of the disease. This paper, he said, did not profess to touch on its pathology and etiology, and these were the questions to which he now wished to call attention. The following facts were to be noted in connexion with post-scarlatinal diphtheria: (1) it appeared mostly among patients who had been for some time in hospital or who were even convalescent; (2) its age incidence was the same as that of primary diphtheria; (3) its fatality, however, was far greater; (4) in its occurrence in different years or months of the same year, and in its ward incidence it was remarkably capricious; and (5) it had occurred in most or all of the Asylums Board's fever hospitals at a time when cases of diphtheria were not received, their admission having been followed by little if any increase in the post-scarlatinal cases. Among the possible causes sanitary defects in the hospitals themselves might be suggested, but neither he nor Dr. Sweeting had been able to substantiate these. As to overcrowding, to which Dr. Caiger ascribed an outbreak in one of his wards in 1892, Dr. Goodall had been unable to trace any such connexion at his hospital (the Eastern), where the crowding was greater. So with regard to the aggregation of severe fever cases consequent on the transfer of convalescents, the incidence of post-scarlatinal diphtheria had been, as a matter of fact, inversely as the percentage of transfers of both diseases, reaching the maximum of 4·4 in 1895, when the proportion of transfers was lowest. Nor did there appear to be any evidence of the communication of diphtheria to scarlet fever patients through the agency of members of the medical and nursing staff, the rules for whose conduct had been very strict since cases of diphtheria had been admitted, and the same might be said of the laundry arrangements. On a few occasions only had he had reason to suspect that the disease had been conveyed by nurses

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with mild sore-throats from which the bacilli were cultivated. There was, however, no doubt as to the frequent association or coexistence of scarlet fever and diphtheria. During the past two years typical cases of each disease had been received from time to time from two large workhouse schools, and he had well-marked cases of each from one family within a week or so. Many cases certified as scarlet fever were, in his opinion, really diphtheria from which the exudation was absent or had disappeared, and they might be the means of infecting others. Then the question arose as to the coexistence of the two diseases in the same individual. Since he had employed the bacteriological method in all suspicious cases he had abandoned his former opinion that any large proportion of anginal scarlet fever cases were thus mixed; but there was no doubt that such did occur, though the introduction of diphtheria into the fever wards was generally due, in his opinion, to infection from mild cases of that disease inadvertently admitted as scarlet fever. The susceptibility of scarlet fever patients to the infection of diphtheria had been exaggerated, for the great majority of those exposed to it in the observation ward, when the diagnosis was clinical only, did not contract it. Of 100 consecutive cases sent in as diphtheria 68 were really suffering from scarlet fever, but the long bacillus of diphtheria was found in 6, and the short variety in 13, while two others were clinically recognised as diphtheria, making 21 in all; 5 were rötheln, 3 were measles, 1 was pneumonia with the short bacillus of diphtheria, 1 was diarrhœa only, and 1 was tuberculous meningitis. The scarlet fever cases in which the bacillus was found were mostly very mild, and their mixed character would not have been suspected without a bacteriological examination, the results of which were as a matter of fact often confirmed by the development of paralytic symptoms. These cases had during the last year or two been increasingly prevalent not only in hospitals but also in private practice, as also had those of post-scarlatinal diphtheria. But scarlet fever was not the only disease complicated with diphtheria, the bacilli having been found in measles, whooping-cough, enteric fever, pneumonia, small-pox, and tuberculosis. Of 83 cases of measles sent to the Eastern Hospital in the years 1892, 1893, and 1894 the bacilli were present in 17, or 20·4 per cent., and 9 out of 100 cases of measles arising among the scarlet fever patients showed them. The death-rate of these cases was higher than that of scarlet fever patients, affording a strong argument against the admission of measles into fever hospitals. Dr. Sweeting had proposed as a safeguard the entire separation of the administration of wards for scarlet fever and diphtheria, but it was worthy of note that in the North-Eastern Hospital where primary diphtheritic cases were not received the percentage of post-scarlatinal diphtheria had steadily increased from the year 1892 when the hospital was opened, and last year stood at 1·6, which was about the same in the North-Western Hospital, where a large proportion of the beds were devoted to diphtheria. Diphtheria gradually increased in frequency from 1877 to 1888, the mortality having been 0·09 per 1000 in 1877, 0·23 in 1887, and 0·30 in 1888. The prevalence of post-scarlatinal diphtheria has closely followed that of the primary form, and its incidence had not been materially higher among the scarlet fever patients in the hospitals than among the juvenile population of the metropolis of like ages.

SOCIETY OF ANÆSTHETISTS.

Pental and its Administration.

A MEETING of this society was held on Feb. 20th, Mr. G. HEWLETT BAILEY, President, being in the chair.

Dr. PRINCE STALLARD (Manchester) read a paper entitled Pental, its Administration in 150 Cases, with an Account of One Death whilst under its Influence. Pental is a purified form of amylene which is prepared by C. A. F. Kahlbaum of Berlin at the suggestion of Professor Mering. In many respects, especially in its physiological and clinical action when inhaled by man, pental resembles its predecessor amylene. Dr. John Snow, to whom we are indebted for most of our knowledge of the physiological action of amylene on the human subject, states the quantity of amylene necessary to narcotise the human subject to be from 3 to 4 drachms. Not nearly this quantity of pental is required. The preparation of pental was then explained and its literature narrated. Pental is a clear, mobile, colourless fluid, having no marked taste, but producing a slight burning sensation when placed on the tongue and a slight irritation at the back of the throat which, however, soon disappears. It is exceedingly volatile and highly inflammable; has no escharotic action when dropped on the skin; and its smell is somewhat pungent, but not disagreeable, patients never complaining of its odour. Being at the ordinary temperature of the room so volatile, it is necessary to administer it by the closed method with the admission of as little air as possible. If exhibited on a piece of lint, as is usual with chloroform, a large quantity of the drug is required. Two cases anæsthetised by this method were then narrated. The patients were long in becoming unconscious and both complained of violent headache on recovery. In all the other 148 cases Clover's portable ether inhaler was used. Two drachms of pental are poured into the reservoir, the indicator placed at O, and the patient encouraged to fill the small bag with his expirations; the indicator is then turned rapidly but evenly to 3; rarely is it necessary to turn to F. Pental is thus given more rapidly than is advisable with ether, and attention was directed to the absence of coughing, struggling, and fighting for breath so characteristic of the latter drug when given alone without the previous exhibition of nitrous oxide gas. No restriction was placed on the patients with regard to diet, and in only one case was there after-vomiting. The clothing should be quite loose around the throat and abdomen the thoracic and abdominal movements being quite free. All the administrations took place at about 10 A.M. In all the cases the patients were seated in a dental chair, the head being placed in an easy position midway between flexion and hyper-extension. The horizontal position would be much safer, as signs of cardiac failure not infrequently occurred in the cases quoted, pental in this respect resembling chloroform. When inhaling this drug the pulse is at first quickened and likewise the breathing, and then the pulse becomes fuller and bounding, with dilatation of the capillaries of the face evinced by extreme flushing, similar to that observed when nitrite of amyl is inhaled; swallowing movements are observed, but never any coughing or struggling; screaming may occur and dreams of a pleasant nature are frequently experienced. Spasms, tonic and clonic, are occasionally present in the arms or legs. The lid reflex is usually present unless the anæsthesia be deep; when the patient is deeply "under" the pupils are dilated and the eyeballs turned upwards under the upper lids and in some cases the conjunctival vessels are prominent and congested; the arm when raised drops helplessly to the side. At the height of anæsthesia the pulse becomes small and may be running. There is no cyanosis or duskiness of the features and stertor is very rare. Micturition and defecation have never been observed. Opisthotonos and twitchings of muscles were noted in a few cases, the patients being generally tranquil. The breathing can hardly be heard, and this constitutes one of the dangers, in this respect pental again resembling chloroform. Recovery is extremely rapid, not being followed by any stupor or drowsiness. As a rule there are no after-effects, patients feeling quite well three minutes after removal of the face-piece and being able to walk out of the house. One case only of vomiting occurred and three or four of nausea, slight headache was noted in a few cases, but this rapidly passed off. The average time required to produce anæsthesia was 56 seconds and the average anæsthesia obtained lasted for 76 seconds. The pre-anæsthetic stage varied from 30 to 120 seconds and the anæsthetic period from 25 to 210 seconds. The advantages claimed for pental are: (1) longer anæsthesia than nitrous oxide gas yields; (2) simple apparatus; (3) no struggling, coughing, or dislike to the drug; (4) small amount required, average two drachms; (5) rapid recovery; and (6) the absence of after-effects. The disadvantages are: (1) insidiousness of its action—an overdose can easily be administered; (2) noiseless and shallow breathing; (3) screaming; (4) sudden cessation of respiration; and (5) sudden cardiac failure. Dr. Stallard then related a fatality which had occurred under pental, the case being his 148th administration. The patient, a female aged twenty-three, attended to have several stumps removed. She was well developed and somewhat fat for so young a woman; the heart sounds were quick, but no bruit was present, and there were no adventitious sounds in the chest. She took the anæsthetic well, but being very nervous she commenced to breathe very quickly. Upon being told to breathe more quietly she did so and rapidly became unconscious in 44 seconds. Four stumps were extracted when her

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face became pale and respiration ceased, and the pulse, which could be felt, was very feeble. The patient was placed on the floor and Silvester's method of artificial respiration was performed, but there was no attempt at voluntary respiration. The feet and legs were elevated and rubbed by the students present; an enema of brandy was slowly injected, but none of it was retained; warm cloths were applied to the præcordium; traction was rhythmically made on the tongue, and sixty minims of ether was hypodermically injected over the præcordium. The pupils five minutes after removal from the chair were moderately dilated, and the heart could be heard by the stethoscope feebly fluttering. At no time was there any cyanosis or duskiness of the features, but rather paleness of the face. There was no sweating. Upon applying the battery over the phrenic nerve and diaphragm three distinct contractions were noticed and then ceased; the pupils became widely dilated and the tongue cold to the touch. Artificial respiration was continued for one hour, but was of no avail. There was no attempt at voluntary respiration at any time beyond the three contractions of the diaphragm. No post-mortem examination was allowed.

The PRESIDENT said that a full discussion was desirable on these matters. He was delighted to see members of the society pursuing their investigations into various drugs likely to become good anæsthetics.

Dr. DUDLEY BUXTON expressed his keen sense of appreciation of the very lucid way in which Dr. Stallard had brought the matter before the society. Speaking of the mortality of pental Dr. Stallard gave one case out of 149, but whether this was really due to pental was doubtful; Gurlt gave 3 deaths in 600 administrations and Snow 2 in 238 cases. One of the difficulties in working with amylene and pental is the liability of impurities. Before they could accuse pental of causing deaths they must be sure it was pure pental and not some mixture of drugs simulating it. In all probability much of the pental as at present supplied is impure. One German observer has found albuminuria and hæmoglobinuria occurring in many cases within three or four days after the administration. Pental, as far as they knew at present, was a most useful drug, but it possibly and probably possesses grave disadvantages from its liability to affect respiration, perhaps through spasm of the glottis and the diaphragm. In the cases of death it was to be noted that these have arisen from failure of respiration while the heart has continued beating for some minutes afterwards. A marked injustice might easily be done to any new anæsthetic if, because cases of death occurred in the early days of its administration, its use was therefore discarded.

Mr. JOSEPH WHITE said that forty years ago he used amylene extensively, principally for the extraction of teeth, and found it a charming anæsthetic, quick in its action, with no after-effects, and liked by the patients. When used for longer operations he soon found that alarming symptoms were very apt to arise, feeble respiration and circulation occurring very suddenly, so that he discarded the drug, not considering it as safe as chloroform.

Dr. SILK was struck with the similarity of the remarks of Dr. Stallard's cases with those he had himself published as occurring when bromide of ethyl was administered, and given the change of name in the two records of cases observed it would be difficult to distinguish the one from the other. He had noticed that with bromide of ethyl decomposition always occurred sooner or later when the bottle had once been opened, and as the clinical symptoms appear so similar he would ask Dr. Stallard whether he had found any evidence of decomposition occurring with pental. He was of opinion that patients should not be in the dental chair but recumbent during the inhalation of pental, as vascular depression so frequently occurred.

Dr. AUGUSTUS COOK said he had been administering pental during the last four or five years; all his cases had been fairly long ones, some of half-an-hour's extent, but his patients were invariably in the recumbent position. The main advantage of pental was the absence of after-effects; it might even be administered on a full stomach without fear of causing vomiting. The open method was employed in all the cases.

Dr. DUDLEY BUXTON asked if Dr. Stallard could explain why in these recorded cases one would give an anæsthesia of 90 seconds, another of 25 seconds, and another of as much as 210 seconds.

Dr. STALLARD said that he had frequently noticed decomposition of the drug to occur. With regard to albuminuria, he had examined 25 cases after administration and found no albumin, but it must be remembered that all his cases were short ones and its effect would not be long enough to injure the kidney. The fall of blood-pressure was marked. With regard to the length of anæsthesia obtained he was of opinion that there was a marked personal factor in many cases.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.

Observations on Mental Fatigue and Recovery.—Pseudo-General Paralysis of the Insane.—Tumour of the Brain.

A GENERAL meeting of this association was held at the Pathological Laboratory, New Museums, Cambridge, on Feb. 20th, under the presidency of Dr. NICOLSON.

Dr. RAYNER moved an expression of congratulation to the President on his promotion to the office of Lord Chancellor's visitor of lunatics, and it was carried by acclamation.—The PRESIDENT replied.—Dr. LOCKHART ROBERTSON was accorded a hearty vote of thanks for his valuable gift of books to the library.

Dr. RIVERS then communicated Observations on Mental Fatigue and Recovery. The investigation was carried out according to a method invented by Professor Kraepelin. The problem was to ascertain the duration of, and period of rest which was necessary for recovery from, the fatigue induced by adding up rows of figures, composed of units, as quickly as possible, one after another. At the end of half-an-hour the number of additions made were marked off. The investigation was divided into two parts; in the first the period of rest was equal to the period of work—viz., half an hour; in the second the period of rest was twice as long as the period of work—viz., an hour. The result was that half an hour's rest was quite insufficient to eliminate the effect of the previous half-hour's fatigue, and even an hour's rest was not altogether sufficient to get rid of the effect of fatigue.—A discussion followed, in which the PRESIDENT and Dr. MERCIER, Dr. MOTT, Dr. WIGLESWORTH, Dr. BOWER, and Dr. RAYNER took part.—Dr. RIVERS replied.

Dr. HYSLOP read a paper on Pseudo-general Paralysis of the Insane. General paralysis, he said, seemed to include every known cerebral degeneration as possible adjuncts of its pathology; many affections, in fact, which are really special paralyses. From the physical side there are two broad types, those which tend to progress and become general and those which tend to progress but remain partial. The result is dementia and paralysis. The epileptic, alcoholic, saturnic, febrile, malarial, syphilitic, apoplectic, and that due to sunstroke are examples of the pseudo-form, and remarks were made upon each. Dr. Hyslop thought that general paralysis was not a satisfactory term, but was used because it was convenient. He preferred the term progressive paralytic dementia. No doubt by differentiation and pointing out more clearly the symptoms of the different types they would be better able to give a prognosis.—The PRESIDENT, Dr. SAVAGE, Dr. WIGLESWORTH, and Dr. SHUTTLEWORTH discussed the paper, but, as there was not time for fully discussing it, it was decided to adjourn the discussion until the May meeting and to publish the paper in the April number of the *Journal of Mental Science* so that those members who were not present might be able to read it before the next discussion took place.

Dr. FLETCHER BEACH read notes of a case of Tumour of the Brain.

The meeting terminated with a vote of thanks to the authorities for kindly placing the pathological laboratory at the disposal of the Association.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.—Adjourned Discussion on a Review of 500 Cases of Heart Disease.

A MEETING of this society was held on March 4th, Dr. MUTCH, President, being in the chair.

Mr. ANDERSON showed a man aged sixty-two years on whom he had performed Prostatectomy, removing also some Calculi from the Bladder by the supra-pubic operation. Cystitis existed prior to operation, but the case did well and

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the man can now hold his urine for some hours, expels a good stream, and is in good health.

Mr. TRESIDDER showed a man aged thirty-four years from whose Kidney he had removed by the lumbar operation a Mulberry Calculus weighing seventy grains. The patient was first seen on Nov. 5th, 1895, and was complaining of fixed pain in the left side. He had suffered from it altogether for ten or twelve years, feeling it latterly, for, say, two or three years, every day. Lately it came on each day about 11 A.M., reached its acme at 1 P.M., being easier again towards night; it was not influenced by laborious work. The first symptom noticed when an attack was imminent was a sinking feeling in the abdomen, but soon a pain appeared on the left loin, sometimes shooting down the left thigh and sometimes down the left testicle. He had, however, no desire to pass urine frequently when the pain was present and he had never noticed anything wrong with the urine. He had never vomited during an attack, and the pain had only on one or two occasions been severe enough to cause him to cease work for the day. The pain was localised in the left loin, just between the iliac crest posteriorly and the lower edge of the ribs. On palpation here, however, no special tenderness existed and no tumour could be felt. Between the dates of Nov. 5th and Jan. 13th the urine was examined about eight or nine times, and on two occasions only was the merest trace of albumin found, never any visible blood, and the urine was each time faintly acid. A few blood corpuscles and one or two pus cells were seen under the microscope on one of these two occasions. Lumbar operation was performed on Jan. 13th. The kidney was delivered on to the loins, the pelvis incised posteriorly, and the stone removed, the opening in the pelvis being afterwards closed with a few Lembert's sutures. The first treatment adopted was medicinal —bicarbonate of potash and bicarbonate of soda—but was ineffectual. The patient was able to resume work on Feb. 24th, six weeks after the operation. The interest in this case centres in the fact that the man had never had typical renal colic, although the stone weighed seventy grains and was situated in the pelvis of the kidney; and, further, although a rough mulberry calculus, yet there had never been noticeable hæmaturia, and, further, that albumin even was frequently absent from his urine. The main point that decided Mr. Tresidder to adopt operative measures was the character of the fixed pain in the loin and the presence of blood and pus, although only microscopic in quantity, in an acid urine occasionally containing albumin.—Mr. TRESIDDER also showed a woman aged forty-four on whom he had operated twice for the relief of Gall-stones.

Dr. CATTLE described a case of Necrosis of the Nasal Bones and exhibited a number of large fragments which had been expelled through the nares.

Dr. MUTCH showed a Pyo-nephrosis which he had removed containing Calculi, the patient making a good recovery.

The adjourned discussion on Dr. Handford's paper of a Review of 500 cases of Heart Disease was held.—Dr. CATTLE agreed with Dr. Handford that digitalis was frequently given in too small doses. With reference to pseudo-angina he thought that many cases of this were very difficult to diagnose from true angina.—Mr. TRESIDDER raised the question of anæmia as a cause of chronic heart disease and also the significance of the presystolic murmur.—Dr. FFENNELL and Dr. WOOD also spoke.—Dr. WATSON, in making necropsies after death from scarlet fever, had frequently found white patches on the arterial coats as well as on the valves of the heart and thought that scarlet fever was a not unimportant factor in the production of heart disease.—Dr. HANDFORD, in reply, thought that where the pulse tension was low calomel was contra-indicated in heart disease; he thought also that many cases of pseudo-angina were hysterical but that there coexisted increase of arterial tension as evidenced by the large flow of urine so frequently met with after a hysterical attack. He thought that the exhibition of salicylates in rheumatism had lessened the tendency to that disease producing heart disease but that statistics suitable for basing an opinion on the subject were very difficult to obtain.

Mr. ANDERSON showed a specimen of Suppurating Uterine Fibroid removed from a woman aged forty-five. The infection was probably through the uterus; it followed a miscarriage and the uterus was dilated and contained three ounces of pus. The woman was operated upon and the uterine tubes and ovaries removed at the level of the internal os, the patient making a good recovery.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on Feb. 27th, the President, Dr. PORTER, being in the chair.

Dr. ARTHUR HALL showed specimens of Dochmius Duodenalis and Trichocephalus Dispar which had been taken from patients of Dr. Plaxton of Kingston, Jamaica.

Dr. MARTIN showed (1) a large Dermoid Cyst which he had removed from a girl aged seventeen. The abdominal swelling was first noticed about Whitsuntide, 1895, the operation being performed in January, 1896. An interesting peculiarity connected with the operation was the way in which the fundus uteri had been, and the interior margin of the left broad ligament was, dragged, making it difficult to recognise the real nature of the tumour. The patient made a good recovery.—Dr. MORTON also showed a Papillomatous Ovarian Tumour the size of two large oranges, which he had removed from a multipara aged thirty-two. The right was the affected ovary, but the left was also found to be undergoing cystic degeneration and was removed. When the patient recovered from the operation she became demented and had to be placed in a lunatic asylum.

Mr. DALE JAMES showed two cases of Congenital Hyperkeratosis—mother and daughter. The mother was a laundress, and her occupation had reduced the morbid condition to a minimum. The daughter had decided hard thickening of both palms, the creases and folds being deeply fissured. No history of syphilis was obtainable, but the mother had a fissured tongue and the girl showed radiating lines about the mouth and a suspicious facial expression.

Mr. RICHARD FAVELL showed a Small Multilocular Ovarian Cyst which he had removed. The tumour was situated low down in Douglas's pouch behind the uterus. It had given rise to various reflex symptoms.

Mr. SNELL introduced two girls: (*a*) one with a Complete Aniridia in each Eye with Nystagmus and Central Capsular Opacities; (*b*) the other with Glioma.—Mr. SNELL related notes of a case of Vaccine Vesicles on the Eyelid and Conjunctiva. The patient, a woman aged twenty-two, was shown at the last meeting. Her child had been vaccinated on Jan. 20th, and on Feb. 4th she noticed the spots mentioned. She came to the General Infirmary on Feb. 7th, and then on the outer surface of the eyelid was a vesicle greyish-white in appearance and slightly umbilicated and containing a little fluid. Another vesicle was seen on the conjunctiva close to the inner canthus and a third on the conjunctiva near the outer canthus. Three days later they commenced to subside, and throughout there was no invasion of the cornea.—Mr. SNELL also related particulars of a case of Membranous Ophthalmia in an infant aged six months. The membrane covered the inner surface of each eyelid in both eyes. It could be removed, but left the surface slightly bleeding. The cornea was at no time implicated. The disease had lasted three days before her admission to the infirmary on Jan. 24th. The membrane reappeared always after removal. Two days after admission diphtheria antitoxin was injected and repeated the next day, five c.c. on the first and four c.c. on the next occasion. The day after there was no membrane in the left eye and two days later both eyes were normal in every respect. An erythematous rash followed the first administration of the antitoxin. Some improvement had commenced before the antitoxin was used, but it was more rapid immediately after, the membrane, especially in the left eye, becoming loose and very little manipulation allowed of it being washed away by the tears. The child weighed 7½ lb. on admission to the infirmary and a week later had gained ¾ lb., and by Feb. 25th weighed 10½ lb. and had recovered in every way. The bacteriological examination was not complete when the antitoxin was administered. In connexion with this case Mr. Snell referred to that of a woman aged sixty-five, seen two days previously with most definite membrane in one eye affecting the palpebral and ocular conjunctiva, but bacteriological examination did not show any bacillus.

Dr. ADDISON showed cultures from the last two cases.

Mr. CUFF showed—1. A Spindle-celled Sarcoma of the Head of the Tibia. The symptoms which had arisen in four months simulated joint disease very closely. There was fluid in the knee-joint and the heat of the skin was increased, there being an evening rise of temperature ranging from 99° to 100° F. 2. A gastric ulcer situated in the anterior surface near the

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pylorus which had perforated and caused the death of the patient.

Mr. MARRIOTT read short notes of an anomalous case of so-called Idiopathic Tetanus and showed numerous Hydatid Cysts which had formed multiple abdominal tumours. The case of tetanus was interesting from the fact that it terminated fatally although the spasms were not severe and the general condition of the patient was good all through till the last day of his illness, when the temperature went up to 105° F.—Mr. RICHARD FAVELL, Dr. SINCLAIR WHITE, Mr. PYE-SMITH, Dr. RHODES, Dr. RUTHERFORD, and Dr. BURGESS made remarks.

LIVERPOOL MEDICAL INSTITUTION.

Changes in the Spinal Cord following Amputations.—Rapid Preparation of Objects for the Microscope.—Exhibition of Specimens.

A MEETING of the Pathological Section of this society was held on March 5th, Mr. FRANK T. PAUL being in the chair.

Dr. ALFRED W. CAMPBELL read a paper on the Changes in the Spinal Cord following Amputations, and detailed the changes found in three cases, one being an amputation below the knee and two being amputations through the upper arm. For purposes of comparison sections of the spinal cord from a case in which the entire brachial plexus had been injured in early life were shown. In all cases marked changes in the spinal cord were found in those segments which receive the sensory nerves from the skin and give off the motor nerves to the muscles removed. These changes were hemiatrophy, with universal reduction in size of grey and white matter, without definite sclerosis of special tracts, and a numerical deficiency of the nerve cells in the cornua, but especially in the postero-lateral group of the anterior cornu, all on that side corresponding to the amputation. In the case where the leg had been amputated there was a reduction in the number of the nerve cells in Clark's column in the lower dorsal and upper lumbar segment. The peripheral nerves above the site of operation revealed marked atrophic alterations and a filling up of the intervening spaces between bundles by large quantities of fat. The ganglia on the posterior roots presented atrophy of some nerve cells. In the brachial plexus case the hemiatrophy was not so marked and the posterior cornua were symmetrical, a condition which Dr. Campbell explained might be due to the skin being left intact. Reference was made to Sherrington, Head, and Thorburn's work on "spinal localisation," and the wonderful accuracy of the results of these observers as confirmed by these cases was commented upon. The paper was illustrated by lantern slides.—Dr. GLYNN, Dr. SHERRINGTON, Dr. BOYCE, and Dr. CHALMERS took part in the discussion.

Mr. THELWALL THOMAS read a note on Rapid Preparation of Specimens for the Microscope by the use of formaldehyde in 4 per cent. solutions, which harden in a few hours any piece of tumour or tissue placed in them. This solution freezes on an ether microtome, and the sections after immersion in methylated spirit can be readily stained with hæmatoxyline. During the past twelve months he had cut sections (over 100) of every tumour or tissue the day after its removal by the surgeon. He also showed sections (1) of Angiomatous (blood and lymph) Growths from the Skin of the Leg and Finger; and (2) of Catarrhal Vermiform Appendix removed for relapsing appendicitis.

Mr. PAUL showed a large Tumour of the Kidney twelve inches in diameter removed post mortem from a man forty-nine years of age. Microscopically it proved to be a primary cystic carcinoma with secondary growths in the lumbar lymphatic glands.

Other specimens shown were as follows:—

Dr. B. MCDONALD: Epithelioma of Ear.

Mr. R. WILLIAMS: Tumour of Lower Eyelid.

Dr. BOYCE: Double Ovarian Tumours with Metastases.

Dr. ABRAM: Brain and other organs from Dr. Davidson's case of Lead Poisoning (recorded in THE LANCET of March 7th, page 627).

Mr. RUSHTON PARKER: Epithelioma of Penis and Lymph Glands in a young patient.

Dr. BARENDT: Malignant Disease of the Œsophagus with Metastases.

Dr. BUCHANAN: Tænia Medio-canellata, Tuberculous Sputum, Retina and Cochlea.

Mr. ALEXANDER: (1) Three Cancerous Uteri; (2) Malignant Tumour of the Ovary with Disseminated Growths; (3) Sarcoma of the Thigh; and (4) Tumour of the Bladder.

KIDDERMINSTER MEDICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on Feb. 28th, Mr. W. MOORE, President, being in the chair.

Mr. S. STRETTON showed a youth aged thirteen years with Lateral Sclerosis of ten months' duration; there was no history of injury and no sign of syphilis, the tendon reflex and ankle clonus were very excessive, and his muscles very rigid, but there was no loss of control over the sphincters.—Mr. J. L. STRETTON showed a case of Compound Comminuted Fracture of the left Tibia and Fibula at the Lower Third. The man was brought to the hospital twenty-four hours after the receipt of the injury and with him several pieces of bone about an inch long which had escaped from the wound. After free irrigation with perchloride 1 in 1000 the wound was sutured and dressed with cyanide gauze, and a splint applied. No bad symptom ensued, the temperature never rose above normal, and the first dressing was twelve days after; plaster of Paris was applied on the seventeenth day.—A case of Excision of the Elbow-joint for Ankylosis without Suppuration. The girl was seventeen years of age, and about three years ago had an injury to the elbow joint. She had been in the hospital on two other occasions with the inflamed joint, and on the last occasion some adhesions were broken down under an anæsthetic. As the elbow would not be fixed at any angle of extreme flexion the joint was excised. The bones removed consisted of the lower end of the humerus and the olecranon process of the ulna, which exhibited patches of caries. The wound was found to be healed by the end of a week when first dressed, and the girl now has a good range of movement, pronation and supination being almost perfect.—Two papillomatous Tumours of the Ovary (right and left) removed from a patient aged fifty-three years. The chief interest of the case was the extreme condition of the patient prior to operation and her rapid improvement afterwards. On admission she was much collapsed she suffered from constant vomiting and was unable to retain any form of nourishment, her pulse was small and thready, and she had frequent attacks of fainting. She was too ill to undergo an extended examination, and the idea of an operation would not have been entertained save for the patient's entreaty. Such symptoms were often associated with a twisted pedicle, but this was not apparent in the present instance. As the abdominal walls were thin Mr. Stretton adopted the incision through the right side, with the idea of securing a firmer cicatrix; but he thought that this advantage was more than counterbalanced by the great difficulty experienced in extracting a second tumour from the opposite side should one be found, as it was in this case.—Twenty-five Gall-stones removed from the Gall-bladder of a young woman aged twenty-two, one of which, considerably larger than the others, was fixed in the duct and was with difficulty dislodged.—The Fœtus from a case of Cæsarean Section. The mother was a young Italian girl and had been in labour twelve hours; several attempts had been made to deliver with forceps and craniotomy. She was in a terribly dirty condition and suffering probably from syphilis. The operation was rapidly and easily performed, and during this two pints of saline solution were transfused. She progressed satisfactorily for the first twenty-four hours, then became restless and gradually sank, dying on the fourth day.

Mr. P. E. DAVIES showed a piece of Briarwood, one inch and a quarter long, which he had extracted from the orbit of a man after five days. There was considerable chemosis but no damage to the eyeball. The piece of wood was lying at the lower and inner side parallel with the nasal duct.

Mr. DAVIDSON exhibited his appliances for Testing Errors of Refraction.

The PRESIDENT read a paper on the Difficulties of Early Diagnosis in Fever Cases.

Dr. EVANS read a paper on Difficulties in Surgical Diagnosis.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.—Reduction of Dislocation of the Shoulder-joint.—Hip-joint Disease with Unusual Symptoms.

A MEETING of this society was held on March 3rd, Dr. A. BRONNER, President, being in the chair.

Mr. CHAPMAN showed for Dr. CAMPBELL a case of Lupus Erythematosus. The patient was a man aged twenty-two

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years, who four years ago had the right thigh amputated for elephantiasis. The area affected by lupus was the lower part of the abdomen and the thigh.—Dr. WOOD, Dr. GOYDER, Dr. LODGE, Dr. CARTER, Mr. HORROCKS, Dr. MITCHELL, and Dr. A. BRONNER, discussed the case, and Mr. CHAPMAN replied.

Dr. HONEYBURNE explained the necessary apparatus and gave a lantern demonstration of Histological, Pathological, Botanical, and Bacteriological specimens.

Dr. MITCHELL showed photographs of a man affected with Eczema Spongosiforme. The skin over the chest, face, shoulder, arm, and forearm was implicated. The skin was thickened and covered with scales which were easily detached and left a moist surface. The condition was one of long standing.

Mr. MIALL read notes on a case of Reduction of Dislocation of the Shoulder-joint and advocated reduction of the dislocation by traction on the limb held at right angles to the trunk. A recent case was narrated in which this treatment was successful, chloroform being given. Dr. McLeod drew attention to this method in 1886, but it is one of great antiquity, being mentioned by Celsus.

Mr. HORROCKS read notes on a case of Hip-joint Disease with Unusual Symptoms. The patient had worn a spinal leather jacket for two years, the back having been injured by a fall. An abscess formed in the thigh and had been incised and drained. Under chloroform the sinuses were enlarged. No bare bone was detected. The femur moved freely at the hip-joint. On opening the joint the neck of the femur and part of the acetabulum were found to be diseased. The ligamentum teres was destroyed, and the head of the femur was necrosed. The head of the femur was excised.—Dr. GRAY described the after-progress of the case, which was satisfactory.

EDINBURGH MEDICO-CHIRURGICAL SOCIETY.

Diabetes Mellitus.—Ophthalmia Neonatorum.—Exhibition of Cases and Specimens.

A MEETING of this society was held on March 14th, Dr. ARGYLL ROBERTSON, President, being in the chair.

Dr. JAMES read a paper on the Blood in Diabetes Mellitus. Most observers, he remarked, had found in diabetes that, contrary to what might be expected in a wasting disease, the blood showed an increase in the number of corpuscles and richness of hæmoglobin. During the last few years he had made observations in a large number of cases of diabetes mellitus. In 13 cases the corpuscles were: over 6,000,000 in 5 cases, over 5,000,000 in 5 cases, over 4,000,000 in 2 cases, and over 3,000,000 in 1 case. The hæmoglobin was over 100 per cent. in 3 cases, over 60 per cent. in 8 cases, and over 50 per cent. in 2 cases. Was this increase the result of a lessening in the amount of water? Were this so the specific gravity of the blood should be increased. He had estimated the specific gravity by Roy's method, but no increase was found. A table giving the results was shown. He contended that the increase in the number of corpuscles was real, not merely apparent, and was an effort on the part of the organism to make up for the great loss of oxidising material to the tissues by increasing the oxidising power of the blood. In support of this view he pointed to the effects of starvation, the loss of corpuscles and hæmoglobin being small in proportion to the other tissues of the body. Additional evidence was found in the digestive power of diabetics; he thought nature tried here to make up for the loss of oxidisable material by increasing the primary digesting power. It would be interesting to know, Dr. James said, if the condition of the blood had any relation to the course of the disease. In his experience the blood was richer in the more vigorous cases, but little could be said on this point.—Dr. PATON asked how could it be possible to get increased production of corpuscles in diabetes, and where did the proteid come from to form the corpuscles and hæmoglobin?

Dr. W. G. SYM read a paper on Ophthalmia Neonatorum, especially in regard to its prevention. He reviewed the general treatment by astringents and said that the secret of success consisted in leaving no pus in the conjunctival sacs to come in contact with the cornea. Many instruments had been devised, but an ordinary hairpin was, in his opinion, the best. In prophylactic treatment the conjunctiva should be cleansed before removing the vernix caseosa, which acted as the natural protection of the eye. Ophthalmia neonatorum caused a large number of cases of blindness—blindness which was, however, quite preventable. It was, as he thought, more common in England than in Scotland, owing probably to the larger number of confinements attended by midwives in England. In many cases when the condition arose the midwife was careless or even hostile to the calling in of a medical practitioner. In certain States of America it was a criminal offence on the part of the midwife to neglect to call in a qualified practitioner if the child's eyes became sore. In some towns in England and Scotland precautions were taken by the authorities. Thus in Glasgow a pamphlet containing recommendations as to what should be done if the eyes should be affected was handed to each couple registering the birth of a child. Such measures had an excellent effect in diminishing the number of cases of ophthalmia neonatorum and ought to be applied in Edinburgh.—Dr. ARGYLL ROBERTSON and Mr. JOSEPH BELL made some observations and Dr. SYM replied.

Dr. MICHAEL DEWAR showed a case of Diphtheria treated by Antitoxin. The child had been in a practically moribund condition when injected with the antitoxin serum. Under the treatment she had made a good recovery.

Dr. JAMES CARMICHAEL showed a boy aged nine years suffering from Chronic Peritonitis, but now in process of recovery. On admission to the Children's Hospital he weighed forty-three pounds; his weight was now forty-nine and a half pounds. The abdomen was now quite *soft* and much smaller. This case seemed to show that surgical treatment was not always necessary.

Dr. CARMICHAEL showed for Dr. BURN MURDOCH a child with Patency of the Ductus Arteriosus who had also acquired cardiac disease. A loud systolic murmur was heard over the præcordium. There was a marked systolic thrill in the second interspace. There was no cyanosis.

Mr. CAIRD showed a specimen of Perforation of the Stomach in connexion with Carcinoma of the Pylorus. A Wertzel's gastrostomy was eventually performed, and the patient did well for twelve hours, but was again seized with pain and died.

GLASGOW MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on March 6th, Dr. W. L. REID, President, being in the chair.

Dr. T. KENNEDY DALZIEL showed a large Multilocular Cyst removed from the abdominal cavity of a young woman. The tumour before operation had been regarded as probably an ovarian cyst with a long pedicle, no manifest pelvic origin being evident. Abdominal incision revealed a multilocular cyst situated behind the mesentery with a pedicle passing directly to the spine. Examination showed the cyst to have been formed from the kidney. The kidney tissue was entirely replaced by the cystic growth, which had passed inwards from the normal position of the kidney towards the middle line. It was noteworthy that a tumour of renal origin had existed without producing bulging or percussion dulness in the flank.—Dr. Dalziel also showed a Scapula removed by operation for a sarcomatous growth which, originating from the spine of the bone, had extended into the supra- and infra-spinous fossæ and had also penetrated the bone so as to appear on its ventral surface.

Dr. KNOX showed a man aged sixty-five years who had been operated on forty years ago for Vesical Calculus by the late Dr. Wm. Lyon. He had remained in good health until quite recently, when he again began to complain of symptoms suggestive of stone in the bladder. The sound detected some calculous formation which appeared to be embedded in the mucous membrane. Under the use of solvents several small phosphatic masses came away and the patient was now entirely free from symptoms.

Dr. H. C. CAMERON showed a patient aged sixty-six years the subject of Phthisis Pulmonalis and upon whose tongue there was a tuberculous ulcer. The ulcer was situated on the under surface of the tongue in the middle line, and it was suggested that its localisation was due to the irritation of the tongue by the sharp edges of the lower incisors in the act of coughing. It was presumably infected from the

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sputa. Dr. Cameron had treated a similar case by filing the teeth and afterwards, the ulcer failing to heal, by excising a V-shaped piece of the tip of the tongue, including the ulcer. The microscope revealed the tuberculous character of the ulcer.

Dr. BARLOW showed a patient aged nineteen years who, nine years ago, as the result of a fracture of the right humerus, suffered from Musculo-spiral Paralysis. At that time the nerve had been cut down on and was found to be embedded in callus, and this had been removed. No response to either the Faradaic or galvanic current could be obtained until thirty-six days after the operation, and the arm had remained weak for many months. Ultimately complete power was restored.

Dr. WORKMAN showed a Brain in which the Middle Lobe of the Cerebellum was replaced by a Bulky Tumour, the mass displacing the lateral lobes and extending forwards to the ventral surface of the medulla. The microscope showed the growth to consist of great numbers of round cells with a fine neuroglia network and very numerous bloodvessels.—Dr. BARLOW stated that the patient, a girl aged four years, had suffered from vomiting, giddiness, and occipital headache. Strabismus, optic neuritis, and a marked inclination to fall backwards when attempting to walk were also present. The knee-jerks were slightly exaggerated. It had been decided to trephine the lower occipital fossa with a view to relieve tension or, if possible, to remove the tumour, but before the operation was performed the child suddenly became unconscious and died, the respiration conspicuously failing for many hours before death, though the pulse remained good almost to the end.

Dr. H. C. CAMERON showed a large Sarcomatous Tumour removed from the abdomen of a female infant aged eleven months. The tumour had originated in the right kidney the renal tissue being spread out over its upper surface. It was first observed when the child was seven months old and apparently caused the patient little or no discomfort; there was no hæmaturia. Enucleation was easily performed and the patient made a good recovery.—Dr. Cameron also showed a Sarcoma originating in the Ovary and removed by operation from the abdomen of a girl aged eight years. At the operation it was found that the growth had invaded the mesentery, the colon, and the bladder wall. The only symptom had been some urinary difficulty, which first occurred in January; subsequently the tumour appeared and grew very rapidly. Dr. Cameron, in remarking upon the case, referred to a similar tumour which he had removed from a child aged three years in whom there had been considerable enlargement of the mammæ and growth of pubic hair.—Dr. Cameron also reported a case of Traumatic Aphasia the result of a fall from a height of fifteen feet on to a concrete floor. There was an extensive contusion in the right occipito-parietal region but no depression or fracture of the bone. The patient remained for a fortnight in a state of stupor with at times convulsions. After this he began to show signs of returning consciousness and gradually began to reply to simple questions. The feature of special interest was that for a long time after his ability to read and to name objects seemed normal he was quite unable to write correctly to dictation. Ultimately he made a good recovery. His memory of the events of the day on the afternoon of which the accident happened had entirely disappeared. It was suggested that the lesion was in the third left frontal convolution and was the result of *contre-coup*.

Dr. KNOX showed a Cystine Calculus weighing three drachms and about the size of a pigeon's egg removed by lithotomy from a man aged forty-five years. The patient some four years ago had been seized with sudden pain in the bladder and inability to micturate, and the use of the catheter was needed. After this he passed two small calculi and then remained well until August last, when symptoms of stone in the bladder appeared. The sound readily detected a calculus of some size. The urine was free from albumin, pus, and blood, but gave a copious deposit of cystine crystals. Dr. Knox had had some experience of an attempt to crush a cystine calculus, and the stone had been so tough that the attempt had failed and lithotomy had to be performed. Hence in the present case he had at once proceeded by the cutting operation. The patient made a good recovery and no cystine could be found in the urine after the secretion began to pass per urethram.

Dr. EDINGTON showed a number of Photographs illustrating various Surgical Ailments.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Choreic Spasms.—Exhibition of Cases.

A MEETING of this Section was held on Feb. 28th, WALTER G. SMITH being in the chair.

Mr. WALTER BERNARD (Londonderry) exhibited a tall, stout, well-nourished, healthy man aged twenty-two years, who was one of twins, and had no family history of nervous diseases. His parents stated positively that he never had even a slight illness, with the exception of measles and whooping-cough, from which he made good recoveries. Eight years ago, when writing at school, a slight jerky movement was observed about his right shoulder, and it had continued to increase gradually. The muscles of the right shoulder, arm, and forearm are in a constant state of movement, and the flexors of the fingers are also in frequent action quite independent of the will. He wrinkles his brow frequently and is unable to put his right hand to the top of his head, or to feed himself with it; neither can he button his coat or use a pen with that hand. His shoulder, arm, and hand are at rest only when he is lifting heavy weights, pushing forward a cart, or engaged in manual labour requiring much effort. These movements are worse on Sundays and are increased by rest. When standing he keeps his hand on a chair to steady his arm. His family say the constant movement is present during sleep. The shoulder and arm muscles are remarkably hypertrophied. He walks with his hand a little behind, the arm being stretched out. There are no signs of antecedent hemiplegia, and the "mobile spasms" are not conjoined with rigidity.—Dr. WALTER SMITH said the case seemed to him to belong to the choreic group of diseases.—Dr. CARROLL said he believed that the movements were simply habits acquired in boyhood, and that these habits became more marked as the patient advanced in years. To illustrate his meaning, he described some instances of habit spasms.—Dr. DRURY thought the condition resembled torticollis, although it did not involve the muscles of the neck.—Dr. CRAIG considered that the movement of the arm was of a choreic character and that in all probability it was the result of an infantile monoplegia that had not been recognised.—Mr. BERNARD, in reply, admitted that the movement simulated chorea; the muscles, however, were enormously hypertrophied, and the movements ceased whenever the patient had to do hard work, such as heaving a cart, lifting heavy weights, &c. He had never seen a case of chorea in which the movements did not cease during the night.

Dr. CRAIG reported a case of Transverse Myelitis, involving the lower dorsal and lumbar regions of the cord. Rapid wasting and loss of motion and sensation and reflexes in the lower limbs, together with retention of urine, cystitis, and acute bedsore, ensued. Partial recovery took place, but the limbs were now contracted. The bladder had been washed out daily and every care was taken to prevent the sore from spreading.—Dr. DRURY stated some views of Dr. Gowers with regard to ankle clonus. He discussed the phenomenon of ankle clonus as an aid in differentiating functional from organic diseases. He also discussed Dr. Gowers' method of measuring paralysed limbs.—Dr. BEWLEY said that ankle clonus was not, in his opinion, a symptom of what was known as functional nervous diseases.

The following specimens were exhibited:—

Dr. J. B. COLEMAN: Athetosis.

Dr. WALTER G. SMITH: Favus of the Scalp in a Child, with Microscope Slide of the Characteristic Fungus. One half of the scalp was treated with chrysarobin ointment and the other half with weak resorcin ointment, but it was too soon as yet to say which of them would give the best results.

Dr. A. R. PARSONS: Trophic Disturbance following Injury to the Median Nerve in a woman.

ULSTER MEDICAL SOCIETY.

The Early Symptoms and Treatment of Puerperal Fever.—Exhibition of Specimens and Cases.

THE monthly meeting of this society was held in Belfast on March 5th, Professor SINCLAIR, F.R.C.S. Eng., the President, being in the chair.

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Professor BYERS read a paper on the Early Symptoms and Treatment of Puerperal Fever. These early symptoms were elevation of temperature and quickness of pulse, but this question of temperature and pulse raise two other important points: (1) the effect of the lying-in period on these phenomena; and (2) the rise of pulse and temperature produced during the lying-in period by conditions other than puerperal infection. He believed that with aseptic and antiseptic precautions the pulse and temperature differed very little during the lying-in period from that of the non-puerperal condition. In reference to the second question he related a series of cases where other intercurrent diseases had raised the pulse and temperature during the puerperium. He believed, however, that in the vast majority of cases rise of pulse and temperature occurring in the first few days after delivery indicated puerperal infection and demanded immediate local treatment. He described the types of puerperal infection and advocated before commencing any plan of treatment a thorough examination of the patient to see whether there was any local lesion of the pelvic floor, vagina, or cervix. The appropriate treatment of these lesions was indicated. In case the disease started from the uterus (as it most commonly did) he advised the digital exploration of that organ, and discussed the following methods of treatment: (*a*) intermittent irrigation, (*b*) continuous irrigation, and (*c*) curettage, and stated the conditions which, in his opinion, demanded either of these plans and when they should be employed. Cases were reported in which these methods had been used. Finally, the question of abdominal section, the use of antistreptococcic serum, and constitutional treatment were discussed; and, in conclusion, Professor Byers urged the importance of the early local treatment of the disease.—In the interesting discussion which followed Dr. GAUSSEN, Dr. SMYLY, Dr. KEVIN, Dr. ISAAC DAVIDSON, Dr. J. J. AUSTIN, and Dr. JOHN CAMPBELL took part, and Professor BYERS replied.

Dr. LORRAIN SMITH gaue a demonstration of Tumours of the Breast.

Dr. W. A. MCKEOWN made some observations on Unripe Cataract, and showed a series of cases illustrating his method of operation.

Reviews and Notices of Books.

Pathology and Treatment of Diseases of the Skin. By MORIZ KAPOSI. Translated from the last German edition under the supervision of JAMES C. JOHNSTON, M.D. London: Baillière, Tindall, and Cox. 1895. Price 25*s*.

EVEN dermatologists who can read German will welcome a standard work like this in an English dress. In France it obtained long ago the distinction not only of being translated by Doyon but of being richly annotated by Besnier, which doubles its value by the comparison of the views of the Austrian and French schools. The work has been so long before the world and is so well known that it does not require a detailed review, but to those to whom it has not been previously known it may be pointed out that Kaposi, as the pupil, son-in-law, assistant, and finally successor to Hebra, gives in fifty-three lectures not only a compendious view of the subject but sets forth as no other man could the views of his great master modified by his own vast experience, close observation, and critical acumen. It is none the less interesting that the strong personality of the author is everywhere apparent, but while these lectures set forth dermatology as it is taught in Vienna it must not be regarded as an exponent of the most modern dermatological views of the rest of the world. The advances made in dermatology in England, America, and France meet with but scant recognition compared with those in North and South Germany; but to those who already possess a knowledge of the subject this is an advantage, as there are so many good works in English and French that a book drawn chiefly from the German standpoint is an interesting and instructive contrast. The English practitioner must be warned against using except with caution some of the more vigorous methods of treatment for chronic eczema and some other obstinate diseases. Not that their efficacy is disputed, but because they are capable of doing great harm in inexperienced hands, and in Germany the system of private hospitals so much in vogue enables the patient to be more closely watched, so that the advantages of vigorous treatment may be obtained and the disadvantages averted by stopping the remedy at once when the special object of the treatment has been reached. To all who are interested in diseases of the skin we earnestly commend the work for perusal, but we also advise them not to let it be the only one studied, but to read it along with the best American or English modern treatise.

The translator appears to have done his work well and produced a translation in clear and readable English. Nor are there any notable Americanisms, as the nationality of the translator might lead one to expect and excuse. The type also is clear and the book well got up. A commendatory preface has been written by Dr. George H. Fox of New York.

Woman Free. By ELLIS ETHELMER. Published by the Women's Emancipation Union. 1893. Price 5*s*.

As far as we can follow the author through the sixty-three stanzas of verses of eight lines each the object of his or her versemaking is to bewail the lot of woman in that she is subject to the function of menstruation, and also to ascribe the fact that she is so to the brutality of man:—

> "For carnal servitude left cruel stain,
> And falls that fester from the fleshly chain;
> Unhealed the scars of man's distempered greed,
> The wounds of blind injustice still they bleed;
> Recurrent suffering lets her not forget
> The aimless payments of a dismal debt,
> Survival from dim age of man's abuse
> Of functions immature, profaned by savage use."

Books on subjects of this kind can only justify their existence if written for scientific purposes on scientific lines. Otherwise undertaken the outcome can only be more or less nasty and must excite the contempt of all right-thinking men and women. Thirty pages of verses about sexual matters, treating various assumptions relating thereto as if they were as true as, for instance, the law of gravity, are bad enough, but what is to be said when we find the thirty pages in question followed by nearly 200 pages of "Notes, &c."? It is somewhat amusing to see extracts from such feeble trash, carefully annotated and explained, for all the world like a school edition of "Hamlet" or "Paradise Lost." The calibre of the writer may be reasonably measured by the following extract from the Notes xxv., 1:—"*Vicarious punishment:* Revolting was the shock of the writer, coming some years ago, with unprejudiced and ingenuous mind, to the study of the so-called 'Diseases of Women,' on finding that nearly the whole of these special 'diseases,' including menstruation, were due, directly or collaterally, to one form or other of masculine excess or abuse." The truth is that books in which the relation of the sexes is considered nowadays come in one of the following two categories: either in the form of novels, in which case they lie on the drawing-room table; or, the question being soberly and scientifically treated, as in standard medical books, they naturally find a place in the medical library. This book is neither of the one kind nor of the other; it has not the slightest claim to admission among scientific medical works, and most assuredly it is not a novel to leave on the drawing-room table. We think such books may easily do incalculable harm to the youth of either sex.

Cahier de Feuilles d'Autopsies pour l'Étude des Lésions du Névraxe. Par le Dr. J. DEJÉRINE, Professeur Agrégé à la Faculté de Médecine de Paris, Médecine de la Salpêtrière. Paris: Rueff et Cie. 1895.

ANY work bearing the name of Dr. Dejérine must

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command respect. This atlas adds abundant testimony to the thoroughness and almost ultra-German minuteness of the investigations pursued at the Salpêtrière. It is printed on large paper, 14 in. by 11 in., and consists of a series of diagrams of the central nervous system, for use in the post-mortem room and the pathological laboratory, in order to clearly record the lesions found. There are eleven diagrams of the external surface of the cerebral lobes, four vertical sections through the lobes made at the anterior and posterior extremities of the corpus callosum, six horizontal sections cutting through the upper part and the middle of the optic thalamus and a point just below the optic thalami. Two cross sections of the peduncles are shown passing through the anterior and posterior corpora quadrigemina, three cross sections of the pons at its upper middle, and lower portions, and three cross sections of the medulla; one diagram of the spinal cord as a whole, marking out the nerves; and four cross sections of the cord. In all of these the details are filled in, and by letters scattered over the diagrams reference is made to a full descriptive table printed below. Ample space is left for writing in all but the horizontal sections, where more room would be an advantage. The abundant lettering over the diagrams is a little confusing at first, but no other way suggests itself by which equal accuracy could be maintained. The lettering is very dark, and if painted thinly over in water-colour stands out well. The sheets are perforated at the left edge so as to be readily removed.

In a short introduction Dr. Dejérine gives precise directions as to the best cuts to make in the examination of the fresh brain, and enters a well-grounded protest against any minute examination until the structures have been hardened. Numbers of specimens are constantly spoilt in the useless attempt to accurately define lesions of the brain immediately after removal from the skull.

The only possible criticism is the criticism of the busy man, that the plan is over-elaborate. We would nevertheless strongly recommend this atlas to the busiest and the least busy of pathologists.

The Transactions of the Ophthalmological Society of the United Kingdom. Vol. XV. 1894–95. London: J. & A. Churchill. Price 12*s.* 6*d.* Pp. 265.

THIS volume opens with the Bowman Lecture, a lecture that is yearly or of the founders periodically given in memory of the chief Ophthalmological and the most munificent patron of the 1895, by Dr. W. Society. It was delivered on June 14th, jective Visu R. Gowers, who took for his subject Sub- of disturbe Sensations, chiefly describing those forms migraine wi Visual sensation which are associated with his notio Epilepsy, of which many had fallen under disorder of Dr. Gowers gave examples of failure or peripheral colour sensation, micropsy and macropsy, with curious pericentral and arch spectra, and has illustrated his lecture with many coloured drawings. Amongst the more important papers are those by Mr. Simeon Snell on Chancre of the Eyelid and Conjunctiva, of which he has collected nine cases; a case of the rare affection Osteoma of the Conjunctiva and another of Tuberculous Keratitis, by Mr. Hartridge; cases of Membranous Conjunctivitis, by Mr. Jessop, in which Löffler's Bacillus was found and which were successfully treated by antitoxin; cases of Discolouration of the Cornea with Blood Pigment, and of the relation between Lamellar Cataract and Rickets, by Mr. E. Treacher Collins; and a case of Alveolar Sarcoma of the Cornea, by Mr. E. Donaldson. Dr. W. A. Brailey supplies a paper on the Iritis of the later stages of Syphilis, the average time of its occurrence being, he thinks, about thirteen years after the primary sore and the form of the iritis being that known as "serous." A remarkable case of Filaria Loa which fell under the observation of Dr. Argyll Robertson is fully reported and presents some interesting features, especially in being in all probability the hitherto undiscovered male of this species. Mr. George Mackay contributes an important article on Eyesight in the Public Services, in the course of which and in the discussion that followed some severe strictures may be read on the present rules for admission into the Services. The volume is illustrated by nine chromo-lithographed plates, some of which present remarkable forms of cataract, by Dr. Lindsay Johnson and others.

Transactions of the Dermatological Society of Great Britain and Ireland for 1895. London: H. K. Lewis. Price 5*s.*

IN the first volume of the Transactions of this new society the most important communications are the inaugural address by the President, Dr. Pye-Smith; an address on the Thyroid Treatment of Skin Diseases, by Dr. Byrom Bramwell; a review of the different methods of treating Lupus Vulgaris during the last twenty years, by Dr. Stopford Taylor; an excellent critical *résumé* of the supposed connexion of Syringomyelia and Leprosy, by Dr. Cagney; a curious Septic Eruption in a red and white steer in which the superficial layers, with the hair of the white part peeled off in large strips, while the red part of the skin was unaffected, by Mr. Wilson Barker, M.R.C.V.S.; and a case of Acute Fatal Pemphigus, by Mr. George Pernet, with bacteriological investigation by Dr. W. Bullock. Altogether the volume is an interesting one.

An Essay on Malaria and its Consequences. By ROBERT LINDSAY, A.M., M.B. Aberd., F.R.C.S. Edin., Retired Surgeon, Army Medical Department. London: H. K. Lewis. 1895.

A GOOD deal of discussion is taking place at the present time in regard to the exact nature and significance of the bodies found in the blood of malarious patients known as Laveran's parasites and their causal connexion with the phenomena manifested in the different varieties of malarious fevers. But all reference to this discussion is conspicuous by its absence in this essay. Volumes have been written upon the supposed cause of malaria. It has been searched for in earth, air, and water with but little result. This essay, we are bound to say, is not calculated to throw much light upon the subject. The author has apparently a theory of his own, in which he labours to prove that carbonic acid plays the part of the main factor. Long periods of speculative reasoning relieved by remarkably few full stops make the book a very difficult one to read. We are constrained to say that we fail to see how any really scientific or useful object or any addition to our knowledge of malaria has been attained by its publication.

Encyklopädie der Therapie. Herausgegeben von OSCAR LIEBREICH unter Mitwirkung von MARTIN MENDELSOHN und ARTHUR WÜRZBURG. Erster Band, I. Abtheilung. (Encyclopædia of Therapy. Edited by OSCAR LIEBREICH with the assistance of MARTIN MENDELSOHN and ARTHUR WÜRZBURG. Vol. I., Part 2. Berlin: August Hirschwald. 1896.

THIS forms the second instalment of the first volume of this encyclopædia. It takes in as far as Cera and we reach page 592. The whole work will be in three volumes of about 800 pages each. By a liberal interpretation of the meaning of "therapie" articles more strictly suited to system of medicine or physiology are included. The labour expended on the production must be immense, but the value of the result is very problematical. In any good library of any small German town the more important of the works of the authors who contribute to these pages will be

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found. These naturally contain their views more fully and more readably expressed. No references are given at the end of the articles and so no means are afforded of remedying the feeling of incompleteness not rarely produced. A few of the contributions are masterly—e.g., Ewald on Auto-intoxication, Senator on Bright's Disease, and Oertel on Bradycardia. But much is very dull and not a little quite useless.

The Science and Art of Obstetrics. By THEOPHILUS PARVIN, A.M., M.D., LL.D., Professor of Obstetrics and Diseases of Women and Children, Jefferson Medical College, Philadelphia. Third Edition. Edinburgh and London: Young J. Pentland. 1895.

THE first edition of this work appeared in 1886 as a complete exposition of the science and art of midwifery by an obstetrician of over thirty years' practical experience, during twenty of which he was a teacher. Such an education was an excellent preparation for the writing of a text-book which would prove useful alike to students and practitioners. Men with a long record like that of the Professor of Obstetrics at Jefferson Medical College are usually too busily engaged in practice to prepare a text-book, and thus, after having from personal observation collected material as a basis, have difficulty in finding time and opportunity to complete such a task. Very often, therefore, text-books are prepared by younger men who, without much experience, merely summarise the accumulated literature of the subject, and not always in the most methodical manner, for students. Dr. Parvin's book has proved a good text-book, and its cordial reception both in this country and in America showed that it was much appreciated, for it was soon followed by a second and now we have to record the appearance of a third edition, much of which has been rearranged and rewritten. As a rule, it is abreast of the recent advances in midwifery, but in some of the chapters—as that on Cæsarean Section—we expected to find it a little more up to date.

LIBRARY TABLE.

Clinical Lectures on Mental Diseases. By T. S. CLOUSTON, M.D. Edin., F.R.C.P. Edin. Fourth edition. London: J. and A. Churchill. 1896. Price 14*s*.—We congratulate the able author of this text-book on the appearance of a fourth edition. The value of the work is generally recognised, and the importance of the new edition is increased by valuable additions, which bring it up to the present level of knowledge. In the appendix are three new coloured plates which illustrate typical changes in the brain cortex in certain forms of insanity. The cellular degeneration which takes place in general paralysis is particularly well represented. A considerable number of new clinical facts are embodied in the text. Dr. Clouston attributes great value to thyroid extract as a powerful therapeutical agent. In large doses he has found it of marked benefit in cases that threaten to become chronic, and he is strongly of opinion that no case should be allowed to become incurable without a trial of this method. The large amount of practical teaching contained in this book readily appeals to the practitioner and the student, and the new edition ought to extend the already wide circulation of a favourite work.

Original Investigations on the Natural History (Symptoms and Pathology) of Yellow Fever. 1864-94. By JOSEPH JONES, M.D., LL.D. New Orleans, Louisiana. Reprinted from the Journal of the American Medical Association. Chicago: American Medical Association Press. 1894.—The author of this volume has seen a great deal of yellow fever, and has, consequently, had ample opportunities of studying its symptoms and pathology. It is possible that some of our readers have already had an opportunity of perusing Dr. Joseph Jones's investigations, which are reprinted from the Journal of the American Medical Association. The volume exhibits much learning about the subject generally and contains a great deal of clinical material and a record of cases with pathological observations.

MEDICAL CERTIFICATES FOR THE LONDON BOARD SCHOOLS.

ON March 5th a meeting of medical practitioners was held at 20, Hanover-square. Dr. J. G. Glover took the chair, and the following resolutions were unanimously passed:—

Resolution 1.—That this meeting of medical men interested in the question of School Board certificates for Board School children, as affected by the Resolution of May 30th, 1895, records its opinion that the system so adopted is offensive to the profession and is likely to be disastrous to the health of the children in the schools.

Resolution 2.—That this meeting is of opinion that pending the alteration of this system medical men should decline to supply certificates to the children attending Board schools.

Resolution 3.—That the above Resolutions be transmitted in the name of the meeting by the Chairman to the Chairman of the London School Board, with a respectful request that the policy of the Resolution of May 30th be revised by the Board, so as to secure the hearty coöperation of the medical profession in protecting the children of the elementary schools from infectious and other diseases, and securing the proper attendance of the children.

The Chairman was requested to forward the resolutions to the Board, and we hope that that body will cease from its ostrich-like policy of sticking its head in the sand. To our minds the Board much resembles the Turks. Everybody knows there are but two ways of getting anything out of a Turk. One is to bribe him, the other is to kick him. So with the Board. Say it is doing a magnificent work, is rearing a race of Huxleys, Tyndalls, and Voltaires and go out into the highways and compel the maimed, the halt, and the blind to come in and sit upon a scientifically constructed seat in a temperature of 63°, and the board will gather up its grant and do anything it is asked. The other way, which we much prefer, is that taken in Resolution 2. We do not remember having seen among the thirty-six subjects of study taught by the Board that of French history, but no doubt the Board will recollect that there were two degrees in severity of examination in the French courts. These were the "question ordinaire" and the "question extraordinaire." The former has been tried with the Board without effect apparently. It remains to apply the latter.

THE CASE OF MR. R. B. ANDERSON.

THE Council of the British Medical Association is supporting Mr. Anderson and recommending his case to the favourable consideration of the branches, to which copies of petitions to members of Parliament are being sent by the Civil Rights Defence Committee for the purpose of securing the signatures of constituents. The following letter, which we have been requested to publish, refers to this subject:—

[COPY.]

Ed. Cureton, Esq., M.D., &c., President of the Shropshire and Mid-Wales Branch of the British Medical Association.

DEAR SIR,—May I ask you to accept my very sincere thanks, and to convey them also to the Branch, for the very valued and powerful support which the course taken in addressing members of Parliament for boroughs and divisions in the district of the branch will be certain to bring us.

Your strong expression of sympathy before the first interim report was published was amongst the influences which then and since (*vide* pages 37 and 41 of that report) have so greatly aided in giving confidence to the committee in its difficult and novel undertaking, and encouraged me to carry on what so many have told me was a hopeless struggle, and which, but for the kindness of many friends and such generous expressions from my professional brethren and the medical press, must have been far beyond my spirit and my strength.

May I ask as a particular favour that the steps taken by the branch should be fully mentioned in the notice of the meeting for publication and I trust you will have no objection to my publishing this letter.

I am, dear Sir, yours very faithfully,

30, Montague-place, London, W.C. R. B. ANDERSON.
Feb. 27th, 1896.

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THE LANCET.

LONDON: SATURDAY, MARCH 14, 1896.

SCARCELY have the echoes of the last great International Medical Congress died away when we find ourselves within measurable distance of its successor. From Rome to Moscow, from the capital of ancient Western Europe to the capital of modern Eastern Europe—for Moscow rather than the city on the Neva is the true capital of the TSAR'S empire—is a far cry. To the untravelled the name of Moscow may have a distant, even an inaccessible, sound; but the untravelled are few in number in the present day, and the traveller has learnt to regard distance as a matter of little moment. There is, therefore, small reason to doubt that the hospitable invitation of the Russians will be as warmly and as numerously responded to next year as was that of the Italians two years ago or of the Germans in 1890. It is already some months since the Medical Faculty of the University of Moscow began their not altogether easy task of organising the next Congress and framing the regulations which shall guide its actions. With each succeeding Congress that task must of necessity become heavier. For, firstly, as the experiences of Berlin and of Rome have proved, the numbers who attend these international meetings are becoming ever larger and larger, and, secondly, medical science is a very rapidly expanding one—perhaps the most rapidly expanding of all sciences. Each of these considerations gives rise to new responsibilities and need of fresh adaptations on the part of successive organising committees.

We print to-day two communications which we have received through our St. Petersburg correspondent from Professor ERISMAN, the general secretary of next year's Congress, and it will be seen that the Russian executive committee has already made praiseworthy attempts to deal with some of these responsibilities. On the difficulty arising from mere physical accommodation of excessive numbers of visitors the committee has at present nothing to say, though with the recollections of the Medical Congress in Rome in 1894 and of the Hygienic Congress in Budapest in 1895 fresh in our memory, the hope may be expressed that some serious attempt will be made to improve upon those congresses in this respect. But a cognate difficulty, that of the languages in which men of so many different nationalities shall be allowed to hold commune, is discussed in the first of the two documents, and the conclusions of the committee on this point are there stated and defended. That they needed some defence all will admit, but it is our duty to question whether the defence is altogether successful. The experience of congresses in the past has certainly pointed to the desirability of limiting the number of languages which should be admitted in the discussions, and the suggestion which was made after the last Congress in Rome, that some single language should be chosen as the official language of future congresses to the exclusion of all others, was theoretically an admirable one. In practice, however, it is open to doubt whether such a suggestion could be carried out. There is now no longer, as in the past, one common language of the learned. Although French may claim to have in some respects succeeded Latin in that honourable position, the claim is but partially founded—There are many truly learned men in all countries who are unable to speak or write in any but their native tongue—An even more practical consideration arises from the fact that in whatever country an International Scientific Congress, whether medical or otherwise, may be held, it will prove almost impossible to exclude the language of that country from the discussions. A second language once admitted, the way is open for others. This has proved to be the case in the present instance, and the Russian Committee, having allowed Russian in addition to French, found it impossible to exclude German. And now, having included Russian and German, it does not seem easy to find any good reason why English should not also be permitted. A language which is spoken by a numerically larger number of individuals than any other civilised tongue, the language in which HARVEY and JENNER announced their immortal discoveries, in which ADDISON and BRIGHT first described the diseases which will probably for ever bear their names, and in which, from the days of WILLIS and SYDENHAM down to those of GRAVES and LISTER, some of the most splendid and lasting work in the field of medicine has been communicated to the world, has claims upon international respect second to no other. We make these remarks out of no feeling of petty national jealousy; the thoughts of which they are the expression arise as an inevitable corollary to the conclusions of the present executive committee. There are still seventeen months before the date of the next Congress, and there is, therefore, ample time for a reconsideration of this not unimportant question. If the regulation concerning languages remains as it at present stands it will have the effect of deterring large numbers, not only of Englishmen, but also of Canadians, Americans, Australians, and others from attending the next Congress or from sending papers to be read at it.

With the object of the second communication from Moscow we are glad to be in hearty accord. It deals with the subject of specialism and the division of the forthcoming Congress into sections. The increase of specialism in recent years is to some extent an index of the growth and expansion of medical science to which we referred earlier. Within certain limits it is not only necessary but desirable. It is only when those limits are exceeded that it becomes open to objection—when the too great concentration upon the diseases of one organ or group of organs leads the specialist to take a narrow view of his responsibilities and to forget that his true function is to restore, so far as he may be able, complete bodily health to his patient, and not only to deal with the local condition of one particular organ; in other words, to forget that he is a physician or surgeon first and only a specialist afterwards. The executive committee of the next Congress has taken a broad view of this question. It has diminished the number of sections to twelve by uniting several specialties which formerly ranked as separate sections under more general headings, such as those of Surgery—

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Therapeutics, or Hygiene. Thus to the first will now be added diseases of the throat, ear, and teeth, and all matters connected with military and naval medicine; to the second, hydro-therapeutics and climato-therapeutics; and to the third, railway hygiene and sanitary technique. The specialist will not be a loser by this new arrangement, but rather a gainer. His opportunities for making communications or fully discussing those of others will not be lessened, but his audience will be a wider one. The laryngologist or otologist will be enabled, if he wishes to do so, to interchange experiences with the ophthalmic or abdominal surgeon; and this will be no disadvantage to either, but rather of actual benefit to both. Specialism is but the special application of general principles, and a return to general principles can scarcely be too frequent, while advance in knowledge or in technique in one specialty is extremely likely to lead to similar progress in another. From another point of view the excessive sub-division of former Congresses into sections was not to be commended. It was unpractical and led to needless complication and confusion. It could, for example, have served no possible end to divide Railway Hygiene, or the laws of health as applied to railways, from General Hygiene, or the laws of health as applied to any other of the countless phenomena of modern social life. In returning to a more simple division of the subjects to be discussed at the next Congress the Russian executive committee has taken a step in the right direction and one that will meet with general approval.

THE ignorance of the poor in regard to everything connected with the prevention of disease and the nursing of the sick is so notorious that it is not surprising to find associations springing up throughout the country having for their object the enlightenment of the masses and the provision of nurses for the afflicted poor. One of the results of this movement is the employment of women selected from the working classes whose training has been limited to a three or six months' course in some institution engaged in district nursing. Using the title of "nurses," we have, therefore, at the present time all grades, from the trained hospital "nurse" who has spent three years in the medical and surgical wards of a hospital to the "nurse" who has only spent three months in a district home. Between these are others, such as the Jubilee nurse, who has had at least one year's hospital training and six months' training in district nursing, with or without an additional three months' experience in midwifery.

The Jubilee nurse has, however, been found altogether too expensive a luxury for many poor and thinly populated districts, and in several counties associations have been formed for selecting women for short periods of training, defraying the expense of such training, and afterwards finding districts for them in which to exercise their vocation. Certain of these associations have been in existence for some time, sufficiently long, indeed, to test their utility and to enable the promoters to express an opinion upon their success in fulfilling the object for which they were formed. There appears to be ample evidence to prove that women who have had six months' training in district nursing are most useful as nurses in cottage homes, and that they may be depended upon to carry out faithfully the orders of the medical attendant. Such being the case, the Countess of WINCHILSEA recently convened a meeting of representatives of each county in which such nurses are engaged, with the object of agreeing upon some common principles, especially as to the standard of training, inspection of the nurses, and the utilisation of grants from county councils for teaching the elements of nursing. Representatives from eight counties attended the conference. Great diversity was found to obtain in different districts, especially with reference to training, but it was agreed that six months' practical work in a good district home was desirable as the minimum. It appeared to be impossible in all counties to find a sufficient number of suitable women who can afford to pay for the necessary instruction, and funds had therefore to be raised for this purpose by subscriptions and donations or indirectly by county council grants for nursing scholarships. The majority are trained under Sister KATHERINE at Plaistow, but the Essex County Nursing Association has its own training home at Leytonstone. In both these homes the women are trained in district nursing and are required to attend a course of lectures extending over six months. At Leytonstone the course comprises "First Aid," "Nursing," and "Hygiene," the lectures being given by a qualified medical man; "Monthly Nursing," given by the sister in charge; and "Invalid Cookery," the demonstrations being given by the county council instructress. All these lectures and demonstrations are open to the general public and are subsidised by a grant from the county council. Apart from the training, both these homes are doing good work in the East of London among the very poor.

This lower grade of nurse is meeting a want; the multiplication of grades is becoming confusing and it would be well were some distinctive titles generally recognised to prevent misconceptions arising. The hospital trained nurse might be specially distinguished as a "trained nurse," the nurse who has received a shorter course of training in a hospital supplemented by district work might be called a "district nurse," and this would include most of the Jubilee nurses, whilst those women who have had not less than six months' training in district nursing only might be known as "cottage" or "village nurses." Women who have not had six months' good training can scarcely claim the title of nurse and could well be designated as "cottage helps." There is an abundant scope for the three latter classes amongst the poor, not only in our large towns, but in our rural districts, and if the numerous associations will only submit to the guidance of experienced members of the medical profession, and not claim for their nurses a status not justified by their training, there is no reason why all the various grades should not render valuable assistance to the busy medical practitioner. Where these nurses are employed even the poorest patients will be attended with an amount of care which must considerably minimise the anxiety of the medical attendant and considerably increase the probability of the patient's recovery. The influence of these women upon the home life of the poorer classes must also be beneficial. We are glad to see that such ladies as the Countess of WINCHILSEA, the Countess of SELBORNE, Lady RAYLEIGH, and Lady BAKER are interesting themselves in this subject, and under their guidance the County Nursing Associations

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are entering upon a career which appears to be full of promise. If properly organised it seems most probable that these associations will receive the cordial sympathy and the support of the whole of the medical profession.

THE Milroy Lecturer is selected annually by the Royal College of Physicians of London to deliver a series of discourses upon some subject appertaining to public health, and although the utterances of one upon whom the choice of the College has fallen are rightly received with due respect and consideration, it would be obviously the wish neither of this body nor of the lecturer that criticism or eulogy should be silent. It is, therefore, in no spirit of levity that we venture to offer a few comments upon the manner in which the theory of the aerial convection of small-pox was dealt with by Dr. SEATON in the recent Milroy Lectures. From a perusal of the lecture in which the subject was more particularly treated of it is somewhat difficult to ascertain exactly what is Dr. SEATON'S mental attitude towards the theory in question; but we gather, both from the observations there made as also from his remarks uttered in other places, that he considers the evidence in its support insufficient to justify its acceptance as a working hypothesis. If, however, this is not the attitude adopted by Dr. SEATON we would point out that it is to his method of treatment of the subject in the Milroy Lectures rather than to his individual views that our remarks will be here mainly directed; and for the guidance of those anxious to follow our observations we would add that the lecture in question (No. II.) was printed in full in our columns on March 7th.

It may be taken that the idea conveyed by Dr. SEATON in his second lecture was this, that he was endeavouring to lay before his hearers and readers the arguments for and against the aerial convection of small-pox; and although doubtless not a few of those who heard or have perused the lecture are familiar with the controversy which formerly raged around aerial convection, it will probably be conceded that the majority are far from conversant with the details of the subject, and that they will thus be inclined to conclude that Dr. SEATON'S lecture summarised the evidence on both sides. It will be seen, however, by reference to the lecture in question, that he practically began with the experience of the year 1881—and left off with it; and that he made no reference to the remarkable occurrences around the Fulham Hospital—closely studied like the others—subsequently to that date. Surely these occurrences, forming as they do not only part and parcel of the general inquiry into this subject, but also the strongest confirmatory evidence of the 1881 outbreak, should have been dwelt upon. It must also be remembered that the theory of aerial convection does not now rest solely upon the Fulham experiences, but that since that hospital was closed against small-pox other notable manifestations of incidence of small-pox have occurred around provincial hospitals when they have been used for the aggregation of acute cases of that disease. These occurrences have been inquired into by thoroughly competent observers possessing experience second not even to that which Dr. SEATON obtained at Nottingham, and have been considered by them as explicable, and best if not only explicable, on a theory of aerial convection. The repeated occurrences at Oldham, dealt with in such an able and unbiased fashion by Dr. NIVEN, now the medical officer of health of Manchester, those at Bradford, Leicester, Warrington, and other places, were, save for the most transient reference to Leicester, passed over, although Dr. SEATON professedly dealt with the "experience of the last decade."

In other words, Dr. SEATON left unnoticed the phenomena which have occurred since 1881 to confirm the Fulham experience and to supply to certain hesitant members of the Royal Commission of 1882 the confirmatory evidence which they desired. Dr. SEATON quoted freely from the report of this Commission which held its sittings, be it observed, considerably over a decade ago, and the utterances of which have therefore in the light of subsequent events perhaps lost some of their pristine force. Still, it was with this somewhat antiquated weapon that Dr. SEATON elected to do battle. We will now deal with the lecturer's criticism as directed against the events of bygone years. Dr. SEATON, while fully recognising the merits of the famous inquiry of 1881, considers that there are certain points which must still be left open to question. The first of these he regards as "the possibility, under the circumstances of 1881, of absolutely excluding the other chances of infection in the case of persons attacked in the month of January." Dr. SEATON will, we hope, forgive us if we say that this statement hardly evinces a proper comprehension of the theory under discussion. Aerial convection, be it for short or long distances, is unable to prevent infection by personal communication, and the acceptance or rejection of the theory is in no way dependent upon the rejection of personal communication as a means—obviously an important means—of infection. Doubtless some cases attributed to aerial convection would be explicable, if the fact could be established, by personal communication, and, conversely, cases which may have had opportunity of contracting the disease by personal infection may really have contracted it by aerial convection. The one proposition is not destructive of the other. The whole point of the argument upon which it seems to us Dr. SEATON hardly sufficiently insisted, is that the peculiar distribution of the sudden diffusion of small-pox in numerous instances is, owing to the topographical relations of the hospital to the streets, houses, &c., better explained upon a theory of aerial convection than upon one of personal communication, and had Dr. SEATON dealt with the incidence of the disease in subsequent years on the several quadrants as worked out by Mr. W. H. POWER, F.R.S., this argument would have been more patent to his hearers and readers. We may, perhaps, recall here the fact that in the N.E. quadrant, which was exceptionally traversed by small-pox ambulances and attendants, the incidence was lower than in any other. The influence of the prevailing wind on the distribution of cases in relation to the small-pox hospitals is a point worthy of some attention. It is, to say the least of it, not altogether improbable that a current of air should waft any particles which may contain the germs of variola in the direction towards which it is blowing; but, on the other hand, it does seem rather contrary, both to experience and expectation,

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that anything short of a hurricane should blow intelligent persons in communication with the hospital in a direction opposite to that in which they are wishing to travel. Aerial convection is, in the opinion of competent observers who have had experience of the operations of small-pox hospitals, a theory which serves to explain a great variety of observed phenomena, and under these circumstances it would surely be as hypercritical to reject it as a working hypothesis as it would be to reject certain well-accepted theories because atoms and molecules have not been actually demonstrated.

Dr. SEATON, in what may be called his second proposition, asks: "Assuming the possibility of distal (i.e., long distance) infection, what are the probabilities of such a method of infection as compared with the probabilities of proximal (i.e., close distance) infection (meaning by the latter term the infection which takes place in ordinary personal communication)?" Here we are entering the domain of insoluble problems, but we would simply reply that it would appear to be the function of proper isolation to avoid as far as possible the risks both of personal contagion and of aerial convection. In the third proposition the lecturer asks, "Is 'distal infection' a dominant or controlling factor in the spread of small-pox?" Obviously the answer to this question will vary according to circumstances. Finally, Dr. SEATON quotes the opinions of several observers to show that apparently no reliable evidence has as yet been adduced that small-pox hospitals are instrumental in spreading small-pox in rural districts, and he draws attention to the remarks of Dr. MCVAIL, in his paper read before the Epidemiological Society in 1894,[1] that the absence of manifestation in this direction "may be as much owing to want of population as to atmospheric condition." As Dr. MCVAIL pointed out, "possibly *only* the atmospheres of towns or cities possess the necessary carrying powers"; but this is a question which, in the absence of a sufficient population in the rural districts to manifest adequately the influence of aerial convection, it is almost impossible to decide, and, further, it is difficult to draw a line between urban and rural conditions. For the present, at any rate, it will be safest to assume that the same potentiality obtains, but that its manifestations in rural districts are difficult of demonstration. The passage quoted by Dr. SEATON from a letter of Surgeon-General BILLINGS is worth referring to, as Surgeon-General BILLINGS, in remarking that the small-pox hospitals in his country are usually located at a distance from *any habitations* (the italics are ours), evidently recognises the difficulty of solving this question in a desert.

[1] THE LANCET, Feb. 3rd, 1894.

THE SMALL-POX HOSPITAL NEAR GUILDFORD.—After expensive litigation the Guildford, Godalming, and Woking Joint Hospital Board won a verdict in the courts a few months ago with regard to the site on Whitmoor Common, the aerial convection of small-pox being, it will be remembered, the point at issue. A gentleman living near has vigorously opposed the site, and the members of the board do not appear to know their own minds. The matter has been several times discussed since the judgment in their favour, but after much wavering the board decided the other day to defer it for three months.

Annotations.

"Ne quid nimis."

SIR JOHN RUSSELL REYNOLDS AND THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

WE are sorry to be authorised to state that it is Sir J. Russell Reynolds's intention not to offer himself for re-election to the Presidency of the Royal College of Physicians of London. He has made no official statement to this effect, but he has intimated his resolution to certain of his colleagues and has resisted their attempts to persuade him to alter his mind. The post of President of the Royal College of Physicians of London is not a sinecure to a conscientious occupant of the chair, and in announcing Sir J. Russell Reynolds's intention of withdrawing from the forthcoming election we desire to record how entirely we share the regret of his colleagues and our certainty that this sentiment will be endorsed by the profession at large.

DANGEROUS PARAFFIN LAMPS.

THE report of the chief officer of the Public Control Department of the County Council, which has just been published, as to the causes of petroleum lamp accidents and as to the measures necessary for preventing them is in substantial accord with the results published by THE LANCET Analytical and Sanitary Commission on Dangerous Paraffin Lamps in THE LANCET of Jan. 4th, 1896. We must admit that the report is more comprehensive, as indeed we could only expect to find, since the Council's inquiry has extended over more than a year, whereas our experiments were conducted in a much shorter space of time and were confined mainly to cheap lamps and those in common use amongst the poor. On the other hand, the County Council have investigated over 100 lamps, comprising cheap, expensive, and safety kinds, oil stoves being also included. We recognised amongst these some old friends, and it is satisfactory to find that practically the same conclusions as our own in regard to them are arrived at. First and foremost comes the conclusion identical with that of our Commissioners—that lamp accidents would gradually cease as safe lamps replaced unsafe ones. Then follows the evidence of statistics in agreement with the results of our own experiments—that three-fourths of the accidents are due to escape of, and ignition of, oil, as by upsetting or other cause. The defects of lamps are pointed out also much on the same lines as in our own report. Thus, lamps with glass, china, or other fragile reservoirs, leaking burners, defective attachments connecting the burner to the reservoir, &c., are condemned. We do not find, however, any record as to the difference in the results when the chimney remains on or becomes detached. In some lamps the chimney cannot become detached, and this has a different effect on the ignition of the escaping oil. One very interesting confirmation of our views in regard to the occurrence of explosions consists in the fact that in no less than 167 out of the 180 recorded explosions the reservoirs were of glass or china, and that in only twelve cases were they of metal. We agree with, and our experiments support the explanation suggested by, Mr. Spencer that the oil heating up more rapidly in metal reservoirs the danger point of explosion may be more quickly passed. In any case the remedy, as we pointed out, is a wick tube extending to within a quarter of an inch of the bottom of the reservoir. This point is well worth commending to the notice of those who still urge that a remedy for lamp disasters is to be found in raising the flashing point of the oil. We hold that the prohibition of the sale

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of oil that is unsafe in grossly defective lamps would be impracticable, while we do not apprehend that there would be any difficulty in regulating the construction of lamps, and it is in this direction, in our opinion, that legislation should be made to tend. There are those who write upon this subject from a purely theoretical point of view and who have never ventured upon making the smallest or simplest experiment with any of the lamps concerned. For ourselves, and we are confident also for the County Council, there is only one interest at stake—viz., that of the protection of the public from the possibilities of risk in connexion with the use of petroleum lamps. Mere conjecture founded on no practical evidence whatever can only serve as a hindrance to real legislation. The lesson taught by the investigation of the County Council and our own inquiry can leave no doubt as to where the remedy in the matter of accidents due to petroleum lamps lies.

NIGHT TERRORS.

IN an interesting article in the *American Journal of the Medical Sciences* Dr. Coutts considers the various conditions described under this name. He first of all calls attention to the scant attention the subject has received at the hands of writers on either nervous diseases or children's diseases, especially in our own country, while in France and Germany and also in America the condition has excited more interest and has been the subject of more literature. Dr. Coutts further points out that in the different writings on this subject there is an extreme divergence of opinion among the writers as to the nature and importance of the complaint, but these conflicting opinions may, he thinks, be summed up under two comprehensive groups. In the first group are to be placed the opinions of those who regard the complaint as reflex, the exciting cause being partial asphyxia, the result of abdominal disturbance, naso-pharyngeal trouble, or bad ventilation. According to the opinion prevalent among the other group of observers night terrors are to be regarded as central in origin, the result of brain disturbance, which may possibly lead to the future development of other neuroses. Dr. Coutts believes that these different opinions have been arrived at by confusing two widely different conditions—a confusion for which the name "night terrors" is largely responsible. Of these two conditions the cases of the first kind are fairly frequent and of little significance, the symptoms being terrors arising during sleep, associated with some abdominal or other reflex exciting cause. In the case of the second class the symptoms are the result of cerebral disturbance, a condition of grave significance both in regard to the present and the future. For the first class Dr. Coutts suggests the name "night-mare," reserving the term "night terrors" for the second, and as a cardinal point of distinction he would insist that in the latter condition the patients "see visions" while in the former they only "dream dreams." With reference to the characteristics of night terrors Dr. Coutts says they seldom occur under the age of two or above that of eight; there is in a large percentage of the cases a history of neuroses such as epilepsy, chorea, &c., in members of the family. Infantile convulsions are a by no means infrequent precursor, the attacks come on when the child is in excellent health, and there is usually only one attack in the course of the night. In the attack itself what first calls attention to the child is, as a rule, a sudden agonising scream, and he is found, seemingly wide awake, sitting up in bed or crouching in a corner. His face is flushed and he is excitedly talking with or protesting against some imaginary person or thing which he sees. The vision is always threatening or terrifying, and the colour red plays a large part in these hallucinations. In the repeated attacks the vision is always the same, even if months elapse between them. The child does not recognise those about him, generally goes off into a sound sleep on being laid down, and has no recollection in the morning of what had occurred during the night. The resemblance of such a condition to an attack of epilepsy is sufficiently obvious, but epilepsy is not the only sequel, perhaps not the most frequent, to night terrors in children. Chorea, migraine, somnambulism, and insanity play a large part in the after-history of cases of night terrors. In regard to treatment, the bromides are of much importance, and general care and wise supervision are, of course, essential. While the condition is to be regarded as not necessarily of much detriment in itself its importance as a danger signal cannot be overrated.

STATE-AIDED v. VOLUNTARY HOSPITALS.

DR. W. KNOWSLEY SIBLEY, senior physician to out-patients at the North-West London Hospital, has dealt with this question in a recent pamphlet,[1] and concludes that the advantages are altogether on the side of the State-aided and State-controlled administration. He condemns the out-patient department of our hospitals for its pauperising influence on the community, and points out that it is far from being unobjectionable in a medical point of view. Dr. Sibley also gives a brief outline of the continental and American methods of hospital management and medical relief. Although we should be sorry to see any other than the voluntary system adopted in England we think Dr. Sibley's pamphlet is worthy of perusal.

PARROTS IN CAPTIVITY: A CHANNEL FOR INFECTION.

VISITORS to Paris cannot have failed to notice the long rows of psittaceous birds displayed for sale on the quays that border the Seine, for if by chance the variegated spectacle escaped their eyes their ears must have informed them of the neighbourhood of the loud-voiced creatures. It seems, however, that this flourishing industry is at present in danger, if not absolutely doomed to extinction, greatly to the horror and alarm of the Syndicat des Oiseliers. Professor Gilbert, physician to the Broussais Hospital and chief of the therapeutical laboratory of the Faculty, having traced several cases of infectious disease amongst his patients to parrots, felt constrained to reopen the old controversy, and so effectual has been his demonstration of this channel for contagion that the love of the Parisians for their gaily plumaged pets has undergone complete revulsion. The sale of *perruches* has consequently dwindled down to next to nothing, and to make matters worse the desire to get rid of the discredited birds has led to immense numbers being thrown upon the market, causing an unprecedented glut. So far the serious side of the question is uppermost, but some recent developments have aroused a vast amount of merriment amidst the laughter-loving populace in the French capital. Anxious to put a stop to a condition of things that was threatening their very existence the members of the parrot-dealing syndicate decided in solemn conclave that their antagonist should be formally summoned to appear before them and answer for his heretical opinions. It was essential, they said, that the Professor should attend *in propriâ personâ* in order that he might be subjected to interrogation. In their ranks there were men, born experts so to speak, who besides being practical ornithologists of the very first order were likewise accomplished bacteriologists, thoroughly versed in everything relating to contagion and immunity. To doughty champions such as these they committed their case with the utmost confidence, for they were

[1] State Aided v. Voluntary Hospitals. Halifax: George B. Ryley, Southgate.

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they not exhaustively equipped for the refutation of all possible assertions, for the annihilation of every conclusion that was inimical to the interests of the guild? In spite of all temptation M. Gilbert, nevertheless, refused to encounter the parrot pedlars in a dialectic tournay, being of opinion that to do so would be equivalent to a coupling of the rabbit with the carp. It was not, of course, to be expected that such a farcical proposition could be seriously entertained, but from a grotesque point of view it is regrettable that a séance so fraught with potentialities for jocundity could not take place. The situation would assuredly have yielded many valuable hints to M. Gilbert's namesake of Savoy renown. The Oiseliers are said to pin their hopes on a statement for which the late Dr. Dujardin-Beaumetz is held responsible, but they ignore the fact that the distinguished therapeutist subsequently disavowed the doctrine before the Conseil d'Hygiène de la Seine. The culpability of the parrot tribe as transmitters of infection has lately been insisted on in a thesis entitled "Psittacosis," which was sustained before the Faculty of Medicine in Paris by Dr. Morange. The author is of opinion that the birds are particularly obnoxious to tuberculosis and warns the public against the dangerous habit of feeding from mouth to beak in which so many people indulge. Without doubt the case of the parrot dealers is a hard one, but the action of their syndicate exposes them to ridicule, and everybody knows that in Paris ridicule is always fatal.

THE MODE OF ACTION AND CHEMISTRY OF COD-LIVER OIL.

IN the *Journal of the American Medical Association* of Feb. 1st Dr. F. E. Stewart publishes the results obtained by himself and others in an investigation into the chemistry and modes of manufacture of cod-liver oil. The mode of action and chemistry of the oil has long been a subject of controversy, some authorities maintaining that it is merely a nutritive agent having the advantage over other fats of a readier entrance into the system and a more ready assimilation, whilst others are of opinion that on account of some peculiar principle or principles which it contains cod-liver oil exercises a stimulating and alterative influence on the processes of assimilation and nutrition, thereby aiding in the production of healthy tissue. It has been debated also whether the pale oil or the darker variety has the better therapeutic properties. The difference in colour depends upon the method of manufacture. The pale oil is prepared from the fresh livers, whilst the brown varieties are prepared by exposing the livers to the heat of the sun, which expands and bursts the oil cells. The first oil that floats to the top of the cask is quite pale and is known as raw medicinal oil. The second skimming is rather yellow and with a strong taste and smell, and is the light yellow oil employed for industrial purposes. The third or last skimming is a dark brown oil with a very strong smell and disagreeable taste, and is used exclusively for tanning purposes. It is generally supposed that the brown colour of the darker varieties of oil is due to the products of putrefaction. Dr. Stewart and his colleagues, however, made a series of experiments in which they appear to have proved that this was not the case. The cause of the darkening could not be determined, but may be due to the same process that darkens the surface of freshly cut meat or gives to dried beef its rich brown colour. Gautier and Mourgnes demonstrated the presence of leucomaines in cod-liver oil, which are powerful stimulants of the functions of nutrition and assimilation, promoting metabolic changes Dr. Stewart had no difficulty in determining the presence of these leucomaines in the large number of samples of oils which he examined. The pale straw-coloured oil contained but a small amount; the light brown oil contained a larger proportion. The writer of the paper from which this abstract is taken maintains, therefore, that the information contained in our text-books in regard to cod-liver oil is to a certain extent erroneous and should be revised, especially in regard to the view that all the substances found in cod-liver oil are due to the products of putrefaction. He also lays special stress on the fact that certain extractive matters obtained from the oil and meat extracts are stimulants to the digestive organs and not nutrients, and that this consideration had caused some medical men to abandon the use of these preparations; but Forster and other physiologists have shown that they (the leucomaines) are necessary ingredients of the diet, their office being to assist in the assimilation of proteids.

THE DENTAL REGISTER.

THE names of members of the dental profession are to be found recorded in the Dental Register for 1896. It shows an increase of 34 on the numbers of 1895—moderate in comparison with that on the numbers on the Medical Register. The dentists of the United Kingdom are registered and practise still, for the most part, on the strength of having been in practice before the passing of the Dentists' Act. No less than 3452 of the 4908 on the Register are without any additional qualification; the rest have, for the most part, qualifications from one or other of the several bodies who lay themselves out for such work. The Royal College of Surgeons of England takes the lead with 712 Licentiates, an increase of 49 on the previous year. The Royal College of Surgeons of Edinburgh has 144, the Faculty of Physicians and Surgeons of Glasgow 122, and the Royal College of Surgeons in Ireland 447 Licentiates on the Register. Foreign dentists number only 27, as last year—11 Doctors of Dental Medicine of the University of Harvard and 16 Doctors of Dental Surgery of the University of Michigan.

THE PORTSMOUTH LUNATIC ASYLUM.

THE Portsmouth town council has adopted the report of its Lunatic Asylum Committee in favour of the strange proposal of appointing, without advertisement of the vacancy, the medical officer of health of the borough to the superintendentship of the asylum. There is yet one final word of concurrence, we believe, wanting—that of the Commissioners in Lunacy. It will be very interesting to see how the action of the town council strikes them and how far they will accept a joint responsibility. We have no more to say than we have already said—and said with reluctance and from a sense of public duty to the most pitiable of all sorts of afflicted people—further than to notice the arguments by which this unprecedented procedure was supported. They were worthy of the proceeding itself. The chairman, Sir William King, moved the adoption of the report. He asked, "Where was the man that would dare to rise in his place and say that Dr. Mumby had failed in his duty?" Of course there was no such man, the fact being that Dr. Mumby had been such a good health officer that it was wrong to remove him from his true post. But the speaker's great point was that all that was wanted in the superintendent of an asylum was good organising ability and skill to deal with the diseases that affect lunatics in common with sane people! This ignoring of the affliction of lunacy is indeed hard on the sufferers. Sir William King cannot, however, be very comfortable in his success, for he disclosed the fact that eighteen months ago he advised Dr. Mumby not to become a candidate. Why did he do so? The opponents of the appointment were only four, and they only pressed for the advertisement of the appointment. They included two medical men—Mr. Emmett and Mr. Hann—who were, of course, but with perfect unreasonableness, accused of jealousy. They are to

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be congratulated on vindicating the principle of justice to the insane and the universal sense of the medical profession. One member of the profession, Mr. Mulvany, supported the appointment of the medical officer of health. "He might be a little rusty, but that would wear off in a couple of months." We commend this estimate of the charge of 600 lunatics to the Lunacy Commissioners, with whom the responsibility rests to see that medical superintendents of asylums are not to be appointed without advertisement of the vacancies and without insistence on the necessity of the candidates having had previous experience in the treatment of lunatics.

THE PUBLIC AND POISONS.

DESPITE all the supervision which is at the present time exercised over the sale of poisons, it is still impossible to prevent some of the most dangerous substances falling into the hands of the general public from time to time. An instance of this came before the Chester Police-court a few days ago in which some seedsmen were prosecuted for selling a tin of powder for killing weeds which was said to consist of 80 per cent. of arsenic mechanically mixed with caustic soda—a truly formidable mixture. Considering how commonly poisons are used in trades and for various household uses it is perhaps a wonder that more accidents do not occur; but, notwithstanding, it is only right that the greatest care should be exercised in the sale of all such substances to prevent them falling into the hands of people who are either careless or ignorant of their dangerous properties.

THE DANGERS OF CYLINDERS CONTAINING COMPRESSED GAS.

ALMOST exactly a year ago we ventured to express the opinion that legislative attention would have to be turned to many chemical preparations now outside the pale of legislative control, with the view of protecting the public from the possibilities of danger which handling and conveyance to and fro of these articles involve. The manufacture of compressed gases, liquid gases, &c., has increased so largely of late years as now to have become an important industry. With the increase of the demand and the output certain risks both in the manufacture and in the transport of these commodities have come to light, and the serious disaster at Fenchurch-street Station this time last year, in which a gas cylinder exploded with far-reaching effects, at once led to the prompt action of the Home Office in appointing a committee of inquiry to investigate the subject and to draw up a report as to the causes of the explosion of gas cylinders and as to the precautions that should be observed in regard to the manufacture of gases, the testing of the storage cylinders, and the manner of filling them. The members of the committee were Professor Unwin, F.R.S., Professor Boys, F.R.S., Professor H. B. Dixon, F.R.S., Dr. Dupré, F.R.S., and the Rev. F. J. Smith, F.R.S., and their report was published last week. We observe with some satisfaction that their conclusions fully endorse our remarks that some need of legislative control was made evident from the great increase in the use of compressed gases and similar articles as ordinary articles of commerce, and that with this increase a new danger was springing up. "It will be seen," says the committee, "that the manufacture of compressed and liquefied gases is carried on on a large scale and by many different manufacturers in different places, and so far as can be judged the manufacture is likely to increase still more, and the compressed gases are tending to become indispensable auxiliaries in various important industries." They find that the risks of explosion of cylinders of compressed gases are due (1) to negligence in the manufacture, annealing and testing of the cylinders; and (2) to neglect of precautions in filling the cylinders. "Looking to the magnitude of the trade, the risk to the public and to users of the gases, and the partial and imperfect regulation attempted by the action of the railway companies," the Committee think "that some control of the trade by official inspection is required." They suggest that this inspection should be under the direction of the Factory Department of the Home Office or a Department of the Board of Trade, and that it should be directed to all matters referred to in the report as important in securing safety. The description and manner of testing to which cylinders should be submitted are detailed with care and at some length, many of the conclusions being based on experimental evidence conducted at Woolwich Arsenal and elsewhere. We are glad to find so full and authoritative a confirmation of the views we expressed in THE LANCET of March 23rd, 1895, and we trust that the recommendations laid down in this excellent report will soon be incorporated into a short Act.

CHANGES IN THE SPINAL CORD IN CERTAIN CASES OF PROFOUND ANÆMIA.

IN the recently issued seventy-eighth volume of the Transactions of the Royal Medical and Chirurgical Society is an exhaustive and well illustrated account by Dr. James Taylor of this pathological combination which has attracted so much attention during the last few years. In addition to a very clear *résumé* of previously recorded cases Dr. Taylor gives a detailed account of two cases which he had himself observed during life and which he subsequently had the opportunity of examining minutely after death. In almost all cases there has been extensive sclerosis, most marked in the posterior columns, with considerable symmetrical degenerations in the lateral and anterior columns. Dr. Taylor thinks that there are two factors in the production of these changes in the cord: (1) a toxic condition of the blood, and (2) hæmorrhagges with some slight focal inflammation; and this view seems to be well founded. In future cases it would be worth while to have observations made experimentally as to the toxicity of the blood on lower animals during the life of the patient.

OVER-PRESSURE AND ITS RESULTS.

THE Shattuck Lecture this year was given at Boston by Dr. Robert Edes, and he discusses in a pleasant and common-sense way the chronic invalids commonly known as "neurasthenics," who form an ever-increasing class of patient in civilised countries. Life is rendered burdensome to themselves and not infrequently to their friends; they exhaust the patience of their medical attendant, for one complaint only disappears to give place to others as distressing; and not infrequently, when recovery occurs, it is attributed, not to medical assistance, but to some modern form of "miracle-working." As to the causation, Dr. Edes attributes it to the modern spirit of the times and not to the local conditions in any one country. Although America is often spoken of as the place where neurotic troubles are most rampant he shows by a quotation from Lowenfeld that the same troubles are frequent "in the quiet city of Munich, supposed to be devoted to classical art and to beer, where there can be no restless political ambition, no worship of the almighty dollar, and no complicated American drinks." Dr. Edes evidently believes strongly in the unwisdom of forcibly suppressing emotion. "Would it not be better," he says, "if our customs and 'good form' permitted a patient to scream as she so often says she wants to, instead of restraining her feelings for propriety's sake and developing a neuralgia or paralysis or an attack of 'nervous prostration'?" Every golf player knows the relief afforded by the golf equivalent of a scream, and Dr. Edes might find the

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links a suitable place for his screaming patients, but in more confined quarters probably the treatment would make more patients than would be cured by it. He analyses the results of removal of the ovaries in twenty-seven women for the relief of nervous symptoms, and the results confirm the strong feeling in this country against the practice. Few were permanently relieved, and in several rapid mental deterioration took place. The lecturer has some wise remarks on the causes of nervous breakdown: "the influence which converts healthy fatigue into a pathological condition is the stress and worry under which work is done" irrespectively of the amount of intellectual labour. This subject is receiving now the fullest attention both in this country and in America, and there are most hopeful signs that in educational and other fields the conditions under which work is done are being improved and that the neurotic and hysterical victims of over-pressure will become fewer and fewer each year.

THE MEDICAL SOCIETY OF LONDON.

THE Medical Society of London celebrated on Saturday last its 123rd anniversary by a dinner in the Whitehall-rooms of the Hôtel Métropole. The President, Sir James Crichton Browne, occupied the chair, and there was a large attendance of Fellows and of distinguished visitors. Amongst the latter were Sir Alexander Mackenzie, the President of the Royal Academy of Music; Mr. Christopher Heath, President of the Royal College of Surgeons; Dr. Dickinson, President of the Royal Medical and Chirurgical Society; Dr. Buzzard, President of the Clinical Society; Professor Dewar, Sir W. Broadbent, Sir W. MacCormac, Sir Dyce Duckworth, and Sir W. Roberts. Sir Joseph Lister, as President of the Royal Society, was to have responded to the toast of "The Sister Societies." He was unfortunately absent through indisposition, and Sir James Crichton Browne in stating this fact took occasion to express the hope of the profession that Sir Joseph Lister would shortly, like his predecessor Lord Kelvin, be raised to the Peerage. Mr. Heath, in proposing the toast of the evening, gave a short historical sketch of the society since its foundation, and remarked on the great value of the meetings for the exhibition and discussion of clinical cases. He recalled that it was just a century since Edward Jenner was a Fellow, and added that Sir Alfred Garrod was the oldest living past President and Sir B. W. Richardson the oldest living Orator. The toast was responded to by the President, who remarked that the two greatest professions were those of the physician and the electrical engineer, who between them would illuminate and recuperate the world. Mr. Mitchell Banks, in responding for the extra-metropolitan Fellows, said that in the history of his vocation since he had been an active practitioner he had noted two great movements: one was the rise and spread of the British Medical Association, this spread being due to a united desire to advance the interests of the profession, and the other was the formation of centres of medical education in the provincial towns of England. This latter had introduced into these towns a new life of literature, science, and art which tended to broaden the souls of those who dwelt in them. The President then presented Mr. Victor Horsley with the Fothergillian Medal and Premium, in accepting which Mr. Horsley made due acknowledgment of the work done by Schiff, Ord, and Murray in the discovery of the function of the thyroid gland and the treatment of myxœdema. The toast of "The Visitors" was responded to by Sir James Dick, Director-General Royal Navy, and by Sir Alexander Mackenzie, the speech of the latter being the brightest and wittiest of the evening. Songs were contributed by Dr. Frederick Roberts and others, and thus the annual dinner passed off most successfully. The sister societies should certainly make some attempt to return the hospitality of their festive elder relative.

BACKWARD CHILDREN.

IT is becoming more clearly recognised that children are not all cast in one mould and that there is a large class to whom intellectual exercises are more difficult than to others and whom it is absurd to force through the same educational curriculum as the average child. But the difficulty confronting teachers in which they look for assistance from the medical profession is this: How are these children to be recognised and how is disability to be distinguished from disinclination or laziness? Before these questions can be answered observations will have to be made on a very large number of children, both normal and backward. A paper giving the result of observations made on 100,000 children was read on the 18th ult. before the Royal Statistical Society by Dr. Francis Warner. The records of cases had been analysed and grouped, the records being made on specially designed cards indicating the points to which the attention of the observer should be directed. The labour involved in the resulting tables must have been enormous, and they will form an invaluable basis for future work on the subject. But it deals with groups and merely indicates the needs of individual children. As Dr. Warner says, "further observations and research are still much needed to afford material for the study of the individual defects and the results of variation in environment both in London and elsewhere." A most useful society, the British Association for Child Study, has been in existence for a few months, formed chiefly of teachers and parents for the express purpose of making continuous observations and records of individual children. The society has the active assistance of several well-known physicians in drawing up schemes for recording observations, and the results after a few years' accurate observation will be collated, tabulated, and published by the society. Information on the subject can be obtained from the honorary secretary, 59, St. John's-park, Upper Holloway, N.

IRISH POLITICS AND MEDICAL APPOINTMENTS.

THE conditions of public life require that Parliamentary and municipal representation should generally be decided on political grounds, and the hand of the electioneering agent or wire-puller is on such occasions everywhere at work, though perhaps not always seen. Humorous writers have found abundant material in these contests, moralists have denounced their inevitable abuses and the questionable compromises arrayed in the condition *Do ut des*, disappointed extremists have mourned over the discovery that success at the poll is apt to be followed by forgetfulness of platform promises, but in the main the opposing parties know something of each other's methods, and the rules of their game hardly vary from year to year. Such tactics, however, are not of universal application, and we are bound to utter an emphatic protest against the introduction of party politics into the selection of medical officers for public appointments. This, unfortunately, seems to have been permitted in Enniskillen, a town of about 6000 inhabitants whose board of guardians consists of ninety members, twenty-six of them being "Nationalists." Not long ago the post of medical officer to the Enniskillen Workhouse became vacant, and three applicants came forward, two of whom were Protestants and Unionists, the remaining one being a Roman Catholic and Nationalist. In connexion with the prosaic business of selecting one of these three gentlemen a strange and humiliating incident occurred. On Jan. 21st the twenty-six Nationalist guardians held a meeting, and it was unanimously resolved "That

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inasmuch as we, the Nationalists, could not return our Catholic and Nationalist candidate for the medical officership of the Enniskillen workhouse, we withdrew Dr. —— and supported Dr. ——, the farmers' candidate, against Dr. ——, the candidate of the landlords, gentry, and their agents and hangers-on, on an understanding and an arrangement with Dr. —— that he would support and use his influence with the dispensary committee in recommending to them Dr. ——, and to have him returned as medical officer for the Barrowstown Dispensary district." This remarkable manifesto carries its own condemnation with it, and will not have the effect of casting oil upon troubled waters.

FERGUSSON'S PUPILS.

IT is a little remarkable that at the present moment at five of the large general hospitals in London pupils of the late Sir William Fergusson are the senior surgeons. They are William Rose at King's College Hospital, Christopher Heath at University College Hospital, George Lawson at Middlesex Hospital, Charles Macnamara at Westminster Hospital, and Boyce Barrow at the Royal Free Hospital.

TRANSMISSION OF LIGHT THROUGH ANIMAL BODIES.

IT appears that the idea of transmitting light through animal bodies is neither one of to-day nor one of foreign development, for in 1868 our own countryman, Dr. (now Sir) Benjamin W. Richardson, read a paper on the subject at a meeting of the British Association for the Advancement of Science at Norwich. Sir Benjamin W. Richardson did not proceed quite in the same way as that which is adopted now, but he endeavoured to look directly through the body, in parts. His idea was that the body might be considered as translucent, and that different organs could be observed by the direct transmission of light round them or through them. He made researches with various kinds of light—the electric, the limelight, the ordinary light, gaslight, oxyhydrogen, magnesium, and other lights, and obtained the best results, as he thought, with the magnesium light. At Norwich in 1868 he fitted up a magnesium light with the necessary shafts and slots, and rendered visible various parts, sending the rays also through the bodies of fish and other animal organisms. A hand exhibited in the light showed a good transmission of light, and in a child the bones, under a somewhat subdued light, could be seen in the hand and wrist. A fracture in the bone could, in fact, be easily made out, or growth from bone. In a thin subject the movement and outline of the heart could be seen in the chest, but the light he then used was not sufficiently powerful to render the demonstration all that he could desire. He held that it would be possible to see through some diseased structures so as to ascertain whether within a cavity there was fluid or a solid body, and he concluded by stating that his object had been rather to mark the origin of a new progressive step than to explain a perfect instrument or record an extended series of successful results. In the course of his address he also said that the method promised fruits of the greatest interest and value. It might be used for a variety of physiological purposes, and in animals whose tissues were thin the condition of the circulation and respiration could be carefully studied under the action of various agents. A little later Sir Benjamin W. Richardson showed the practical use of transmitted lights. In one case he detected by it in the fingers of a woman a little plexus of blood-vessels from which drops of blood had exuded. He marked the spot, and afterwards, by dividing the plexus, cauterising, and applying pressure, he completely relieved the patient of her trouble. It has been observed as a singular fact that observations such as these recorded in 1868 were allowed to drop out of sight for so long a period; but the fact is we were not then so ready for the development as we are at this time, and photography had not advanced, as it has now, so as to come to our assistance.

THE LONDON SOCIETY OF COMPOSITORS AND MEDICAL CHARITIES.

WE have received the report of the London Society of Compositors for the year 1895. The society commenced to subscribe to medical charities in 1858 with a donation of 14 guineas, and has continued to do so ever since, the amount subscribed increasing with every year until in 1895 it reached £255 3s., the membership being 10,280 in round numbers a subscription of 6d. per head. We have no information as to the other trade societies, but we doubt whether they do as well as the compositors. The amount voted for the current year is £262 10s. The total amount subscribed in the seventeen years 1879—at which date the subscriptions to medical charities were entered distinct from trade charities—to 1896 is £3350 2s., an average of nearly £200 a year. If all the trade societies would show an equal amount of organised benevolence financing of hospitals would not, we fancy, be such hard work as is at present the case.

PURE BEER.

BEER has been the subject of legislation from a very early time, and, contrary to what many believe, was adulterated in the old days as much as it is now, though in quite a different way. "And you, maister brewer, that groweth to be worth £40,000 by selling of soden water, what subtility have you in making your beer to spare the malt, and put in the more of the hop to make your drink, be barley ever so cheap, not a whit the stronger, and yet never sell a whit the more measure for money. You can, when you have taken all the harte of the malt away, then clap on store of water ('tis cheap enough) and mash out a turning of small beer like rennish wine; in your conscience how many barrels draw you out of a quart of malt?" So was it written in a curious tract published in 1592. According to those who are supporting by petition Mr. Cuthbert Quilter's endeavours to introduce a Pure Beer Bill on the 25th inst. the question, How many barrels draw you out of a quarter of malt? would still be an awkward one for some "maister brewers" to answer. Not, however, because malt is used sparingly, but not at all. Sweet wort may consist of the sugars obtained from certain starches by the hydrolising action of weak boiling acid. The weak saccharine solution may then be fermented and subsequently bittered with anything but hops. The resulting product, therefore, is not a malt liquor or such a wholesome bitter as if it contained hops. In short, it is not beer; no liquor should be described as such that is not brewed exclusively from barley malt and hops. We trust that the petitioners who are now humbly praying that such a definition may shortly become law will have their petition granted.

THE PREVENTION OF CRUELTY TO CHILDREN = ITS WAYS AND MEANS

IT is a strange fact that public charities which are ever in search of revenue do sometimes, in a sense, become embarrassed by their own funds. We may mention one recent instance among others. The National Society for the Prevention of Cruelty to Children, thanks to the exertions of its supporters, has during the past year been enriched by the proceeds of a series of bazaars. Notwithstanding the

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encouraging result, however, there is some ground for disappointment in a diminution of the ordinary annual income. The shadow of the bazaar scheme has partially eclipsed the private subscription list. The embarrassment thus occasioned will, we trust, be merely temporary, and we feel sure that the financial position of the society has only to be known in order to stimulate the liberality of its many well-wishers. As regards its work little explanation is called for. Its influence as a reforming agency has been felt—not only by the suffering child, but by the cruelly-erring parent also. Its main purpose has always been rather to protect than to punish, to educate in self-restraint rather than to avenge offences. The conduct of its officers has rarely, if ever, been impugned by other than prejudiced persons, while on the other hand it has often elicited the warmest commendation. It is difficult indeed to see how, without their exertions the Act, which is virtually a Magna Charta of childhood, could be reduced to practice. The large extent of the field covered by its operations moreover affords a means of generalisation as to the neglect, injury, and disease in their relation to infant mortality, which must ultimately go far towards the diminution of these prevalent evils. For such and similar reasons we trust that the appeal recently issued by the society to its collectors in every district will result in such a return as will more than make good the deficit in contributions for the current year.

THE annual general meeting of governors, donors, and subscribers of University College Hospital will be held in the board-room of the hospital on Friday, March 20th, at four o'clock. The business of the meeting will include the election by ballot of fourteen members of the hospital committee and the consideration of a statement of accounts for the past year, together with a report on the condition of the hospital.

H.R.H. THE PRINCE OF WALES has signified to Lord Aldenham that he will have much pleasure in presiding at the dinner which is to be held in May next in aid of the re-endowment of Guy's Hospital.

THE annual festival dinner of the Irish Medical Schools' and Graduates' Association will take place at 7 P.M. on St. Patrick's Day, March 17th, at the Café Monico, when the President, Sir Richard Quain, Bart., F.R.S., will preside.

THE spring meeting of the South-Western Division of the Medico-Psychological Association is to be held at Bailbrook House, Bath, instead of at Barnwood House, Gloucester (as previously announced), on Tuesday, April 14th.

H.R.H. THE PRINCE OF WALES has appointed Sir William MacCormac medical officer in chief of the St. John Ambulance Brigade.

PRESENTATIONS TO MEDICAL MEN.—Dr. Herbert Watthews, of Holmfirth, Huddersfield, has been the recipient from the Holmfirth Ambulance Corps of a silver-mounted riding whip.—Dr. Thomas Carr, of Bocking, Essex, has been presented by some of the ladies attending his Rayne Ambulance Class with a brass reading stand, "as a slight recognition of his interesting lectures on first aid."—On Feb. 24th the friends of Dr. Samuel Tate at Moy, county Tyrone, where he had resided for several years, met at his residence at Richhill, he having been lately appointed medical officer of Richhill district, and presented him as a token of their regard with an illuminated address and a microscope.—The friends of Dr. Cautley Dawson of Rawdon, near Leeds (who is about to give up his practice there), have united to make him a parting present in testimony of their esteem. The testimonial consists of a timepiece in a chased brass case and a cabinet and book-case combined (with artistic draperies.)

THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER XI.

THE LANCET becomes a Rigorously Medical Paper.—Wakley as a Chess-player.—The Hospital Reports, or "Mirror of Hospital Practice."—Reproof to Students.—The Preface to the Second Volume of THE LANCET.*—Some Criticism of Hospital Procedure.—Attack on Nepotism.—Expulsion of Wakley from the Borough Hospitals.*

AT the date at which this history has now arrived—viz., the date of the dissolution of the injunction prohibiting the issue by Wakley of Abernethy's Lectures in THE LANCET, Wakley's paper was a recognised publication of more than two years' standing, with a regular circulation of upwards of 4000 and a well-defined policy and range. Wakley kept his promises of the original preface during the first two years well, but as the paper grew in authority and increased in circulation two alterations in its contents became noticeable. The first was that all attempts to interest the reader in matters outside the science, practice, and politics of medicine and the allied sciences were given up. The second was that the position of Wakley and the hospital officials towards each other had crystallised into unmistakable hostility.

The disappearance from the paper of the weekly columns entitled respectively "The Chess-table," "The Dramatic Lancet," and "Table Talk," meant more to the Editor than the importance of the articles would seem to us now to warrant. It was a sacrifice of three of his own hobbies to the pressure of what he conceived to be his wholly absorbing duty. All writers who use their pens to promote certain definite serious results, political, social, financial, or what not, know how pleasant it is to have an opportunity of lightening the important labours of the day by a little desultory writing upon some topic in which they take a less absorbing or a more light-hearted interest. Wakley was a great chess-player, an enthusiastic playgoer, and, as later the House of Commons and the Reform Club were not slow to discover, an admirable dinner-giver and diner-out. His chess he had learned when quite a boy. It formed his chief recreation during his period of hard study in Gerard's Hall, and throughout his life he was an ardent student of the most absorbing and scientific of domestic games. He was one of the very few players who contested successfully with the celebrated automaton player; and it was his habit, when engaged in editing his paper, to have a chess-board by his side, upon which, during the intervals of dictating and proof-reading, he would set himself problems. It is a curious fact that THE LANCET, which became after its first few numbers so rigidly a medical paper, should have been the actual journal to inaugurate the practice of publishing chess-problems and accounts of games of chess; but Wakley, as will be seen from his own words, believed that the study of chess would form a recreation peculiarly fitted to the mind of the properly trained medical man, and so might almost form a factor in the ideal medical education.

"In a former number," he writes on Nov., 1823, "we gave some account of the origin of the game of chess. This is perhaps the only game to which the medical student may profitably devote any portion of his time and attention. It is liable to none of the objections which apply to games of chance, it holds out no encouragement to cupidity, and while it affords an agreeable relaxation from more serious pursuits it strengthens the intellectual faculties by the unremitting

[1] Chapters I., II., III., IV., V., VI., VII., VIII., IX. and X. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, 15th, 22nd, and 29th, and March 7th respectively.

[2] See chapter viii. of Biography, THE LANCET, Feb. 22nd, 1896.

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attention which it demands, and may even have some influence on our moral habits by the lessons of foresight, patience, and perseverance which it inculcates. To avoid errors on the one hand by foresight and circumspection, and to endeavour to retrieve such as are committed on the other by patient industry and perseverance,—these are matters applicable to all professions and situations in life, and which, as the American philosopher, Dr. Franklin, has observed, are constantly illustrated on the chess-board. The study of chess has, we believe, been recommended to medical students by the distinguished Professor whose lectures stand at the head of this publication (Sir Astley Cooper), and who unites to his great professional and general knowledge a very considerable degree of excellence in that scientific game. The recommendation was founded, not only on the superiority of this amusement to all others in an intellectual point of view, but upon a more benevolent motive: for circumstances might possibly occur in which the surgeon's acquaintance with chess might relieve the mind as much as his professional skill could mitigate the bodily sufferings of his patient."

From this it will be understood that Wakley did not allow his chess articles to be crowded out without a pang nor without some little doubt that he was sacrificing to utilitarianism a subject that had its utilitarian side.

The "Dramatic Lancet" came to an end even sooner than the contributions to the literature of chess, and it also was not allowed to disappear without regret. Wakley had an extreme love of the stage. He was well read in dramatic literature and a constant attendant at the play, a fact upon which his future oratorial successes were largely dependent. Many of his similes and illustrations and many of the nicknames distributed freely by the writers in the early numbers of his paper had their origin in the Editor's histrionic proclivities. In omitting the notice of the drama, moreover, Wakley was not only narrowing his range by excluding the discussion of a subject very palatable to his own taste, but he was taking work away from some of his press friends who, when THE LANCET was a small paper, and not quite limited either in programme or performance to things medical, gave him their assistance.

The first alteration that Wakley made in his paper—the limiting its columns to strictly medical matter—which, by the way, dated definitely from December, 1825, was not an important one. It had relation to certain idiosyncrasies of his own, and so but, as a matter of fact, the lay matter in THE LANCET was so small in quantity and unimportant in quality compared with the medical that its formal exclusion made no difference to the position or value of THE LANCET. But the second alteration, the officials, was a very important departure and one that must be explained at some length. If Wakley had not quarrelled with the hospital surgeons as a class many regrettable passages would never have been written. On the other hand, his intuition and foresight told him, and his innate pugnacity supported him in the view, that unless he declared absolute and unrelenting war upon those who were attempting to restrict his operations for reform he would fail utterly and hopelessly. And he was right. All the good that Wakley did was due to the fact that when he came to the little stream separating the province of medical journalism, as then understood, from the kingdom of the monopolist, he boldly crossed it and declared war, recognising that fighting was his only alternative to utter ineffectiveness.

The war began in the department of the paper that is now known as "A Mirror of Hospital Practice." The reports of proceedings in hospital practice were first started regularly in THE LANCET of Nov. 9th, 1823—that is, in the sixth number that was issued. From this period they have been continued for seventy-two-years without intermission—for the first twenty-six years under the original title of "Hospital Reports," and since then under the title of "A Mirror of Hospital Practice." All the reports in the first volume were couched in a fairly complimentary vein. Guy's Hospital and St. Thomas's Hospital came in for the most lengthy notice, the reason of this being simply that the operative surgery of Sir Astley Cooper overshadowed that of every other surgeon in the kingdom, and the most trivial procedure in surgery under his hands became a matter of interest of which all were bound to read. Proceedings at St. Bartholomew's Hospital, where Abernethy was the great but infrequent operator, had allotted to them also considerable space, while the cases of Charles Bell at Middlesex and Benjamin Brodie at St. George's Hospitals were usually detailed at some length. Throughout the first volume the reports were, on the whole, eulogistic. Every now and then the lack of some little convenience in ward or operating theatre was made the subject of uncomplimentary comment, but no word derogatory to the operator ever appeared. Not that there was any slurring over of the real issue of the cases out of deference to the feelings of the surgeon, for as early as Nov 16th we have the fatal sequel of a case narrated in uncompromising terms. A man had died after being operated upon for stone by Sir Astley Cooper, and the death was attributed to hæmorrhage from the artery of the bulb in a perfectly matter-of-fact way, showing that the reporter was more concerned in giving a truthful record of hospital surgery than of being pleasing to eminent persons. A caustic remark on an operation undertaken for stone where the patient "was carried back to the ward without receiving much assistance from chirurgical skill, as no stone was extracted," was the only really unfriendly comment on hospital surgery that Wakley allowed himself during the first volume. On the other hand, the journal which professedly catered largely for the medical students did not scruple to speak severely to them of their behaviour at lectures and urged upon them the necessity of paying due attention and respect to their teachers. The following passage appeared in a letter in the first volume of THE LANCET reflecting upon the conduct of the surgical classes at the United Hospitals previously to Sir Astley Cooper's entrance to deliver his addresses[3]:—

"What an interesting spectacle, Mr. Editor, to see a body of young men assembled for the purpose of acquiring professional knowledge actively engaged in discharging masticated paper and apple into each other's faces or engaged in the no less intellectual occupation of twirling round the lecturer's table or sprinkling dirt on the heads of those who happen to sit under them! I have been educated at Edinburgh and have attended the medical schools of our continental neighbours, and I can assure you that the students of St. Thomas's are not only far greater proficients in these accomplishments than their graver brethren of the north, but that if a student from the École de Médecine were introduced into the theatre in the Borough he would be compelled to acknowledge the inferior vivacity of a class of French students. Such an admission would, no doubt, be very humiliating, but the students in the Borough were entitled to it. *Palmam qui meruerunt ferant.*"

The editorial comment upon this was to print in the next number the following:—

"We have received several letters from students belonging to the class of Mr. Charles Bell, complaining of the noisy and childish behaviour of some of the pupils during lecture; so great has been the annoyance that Mr. Bell twice in the last week was obliged to address the gentlemen on the subject. If this interruption should be repeated Mr. Bell, in justice to the intelligent hearers, is called upon to take the most decisive measures to abate what has now become an intolerable nuisance. The student who can be inattentive to a lecture delivered by Mr. Charles Bell can have but little

[3] This is the "so genteel a surgical class," all of whom "appeared gentlemen of cultivated manners and good education" to THE LANCET reporter when he saw them in Sir Astley's presence.—THE LANCET, Feb. 22nd, 1896.

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regard for either his professional character or intellectual improvement."

These passages sufficiently show that THE LANCET was no friend to rowdiness. The man who hated that element of student life when a student looked with no more favourable eye upon it now, and all his counsels to his student readers were good and sober. This must be put on record because one of the wild accusations against him which found a place in the contemporary press was that he stirred up the students against their masters—his foes, the hospital surgeons. His conduct was absolutely the reverse, and until the hospital surgeons saw in the faithfulness of the reporting and the freedom of the speaking in THE LANCET a menace to their interests the accusation was not brought forward.

But the preface to the second volume of THE LANCET stirred apprehensions in the hospitals. Hitherto a little wondering among a few whether they would be subjected to what they termed the "piracy" of their lectures—a process to which Sir Astley Cooper had amiably submitted—had been the measure of their objection to Wakley, but the following words had an import serious to the surgical staffs of all the hospitals:—

"The next distinguishing feature of THE LANCET is the publication of Hospital Reports. It has long been a matter of astonishment that from the different hospitals in this great metropolis no reports of cases have been sent forth to the world. This deficiency we shall endeavour to supply, and our reports will have this advantage over any that might be published by the surgeons of the different institutions—that while they would have an interest in concealing many circumstances which might reflect discredit on themselves and the institutions to which they belong, we cannot be influenced by any such considerations, and as the only argument that can be adduced against our reports is that they are not sufficiently authenticated we have only to observe that, by giving the cases as they occur in the hospitals, a sufficient number of checks is afforded by which our claims to the confidence of the profession may at all times be readily investigated."

Here we have the first loud sounding of the reformer's cry. This is the first time that Wakley said of the hospital surgeons—his brother practitioners—that *they* might conceal things awkward to themselves or their hospitals, in which case it would be *his* duty to reveal them. His words may be taken as the beginning of war. In that case it must be conceded that Wakley struck the first blow; but it was such a tap compared to the one that was, as will be seen, almost immediately struck back at him, and gained what force it had entirely from the weakness of the foe, that he must be excused for believing that he was the offended party. For such was always his view. But no increased asperity was employed in the reporting of hospital cases. The records were strictly fair and accurate. Reference was made to erysipelas occurring at St. George's Hospital after operations. Mr. Key's surgical skill at St. Thomas's comes in for approbation, and only certain hospital abuses are found fault with, the blame being secondarily apportioned to the medical staff, who are credited with ignorance of the matters detailed. Here is an example:—

We understand that persons were allowed to vend porter in the wards of St. Thomas's Hospital, and to hawk oranges, tarts, &c. through those of Guy's. We cannot suppose that the medical officers of these institutions are aware of these facts, and on that account we refrain for the present from making any remarks on them. The abuse is too glaring to be allowed to exist by anyone concerned in the treatment of the sick and who has it in his power to effect its redress.

This little paragraph, revealing as pages of writing could not do the exceeding lack of proper administration in the wards of the metropolitan hospitals seventy years ago, is the only passage that could have given offence to the most susceptible sensibility or the most uneasy official conscience. A case of lithotomy was mentioned in which Messrs. Travers, Green, Morgan, and Tyrrell diagnosed a non-existent stone, but the fact was mentioned as one of surgical interest, and no unfavourable comments were made. At length, however, a point arose upon which THE LANCET required more light. A case of compound fracture of both bones of the leg was admitted to the wards of St. Thomas's Hospital. The patient remained eight days with only alleviating treatment, but finally when the parts were threatened with gangrene Mr. Travers consented to operate. The femur was amputated about three inches above the knee, and the operation was performed with very little loss of blood. Nevertheless the patient, who was in a parlous plight when surgical interference was at last resorted to, died three days afterwards. The reporter of the case to THE LANCET put certain questions to Mr. Travers concerning the cause of the delay in operating. This may be taken as the first assertion on the part of Wakley of a right to criticise events occurring in the hospitals as good as his right to narrate them. He received no answer, but he did not make any reflection on this as an omission on Mr. Travers's part. On the contrary; in the next week's issue the reporter gave at some length an account of a case where Mr. Travers was pressed to operate upon a patient for stone, but declined to do so, as his colleagues, Mr. Key and Sir Astley Cooper, could not detect the presence of a calculus. This patient died, and a post-mortem examination showed that opening of the bladder—at any rate with a view of removing a stone—would have been useless as no stone was present, and Mr. Travers was congratulated upon his discrimination. As yet the amenities were preserved.

It was Sir Astley Cooper's lectures, or rather their too faithful reporting in THE LANCET, which did the mischief. Sir Astley Cooper had a very intelligible and rational contempt for the routine treatment with mercury of certain complaints and expressed himself concerning it as follows[4]:—

"To compel an unfortunate patient to undergo a course of mercury for a disease which does not require it is a proceeding which reflects disgrace and dishonour on the character of a medical institution. No consideration shall induce me to repress my feelings on this subject; no authority shall restrain me from giving full expression to these feelings. As long as I continue a surgeon of Guy's Hospital I will endeavour to do my duty; but I care not whether I continue a surgeon of that hospital another day. I do say that the present treatment of patients . . . . . in these hospitals, by putting them unnecessarily under a course of mercury for five or six weeks, is infamous and disgraceful. The health of a patient is, perhaps, irremediably destroyed by this treatment; and after all not the slighest effect is produced by it on the disease."

Immediately after the publication of this vigorous indictment of his colleagues by the omnipotent prince of surgery, meeting after meeting of the surgeons of the United Hospitals took place, and one week later Sir Astley Cooper stated that new and improved regulations concerning these cases had been agreed upon. Wakley was not a little jubilant at this public announcement, for it enabled him to point to an undoubted instance where the publication of lectures had been of good. Sir Astley Cooper had fulminated against the abuse of the mercurial treatment at the Borough Hospitals on previous occasions to the students, but no practical reformation had ever resulted therefrom. No sooner, however, were his words made public in THE LANCET to the whole profession than reform, drastic and salutary, followed. Wakley's little self-congratulatory crow was natural and inoffensive, but it happened that Sir Astley Cooper in making public the designs for better administration in the faulty wards made an ingenuous disclaimer of having been actuated in his previous plain-speaking by any desire to ignore the feelings of the surgeons of the Borough Hospitals.

[4] THE LANCET, May 15th, 1824.

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"Who are the men, gentlemen," he said, "against whom it has been supposed that these observations were directed? Are they men whom I could possibly feel disposed to injure? Mr. Travers was my apprentice, Mr. Green is my godson, Mr. Tyrell is my nephew, Mr. Key is my nephew, Mr. Morgan was my apprentice." Wakley rallied Sir Astley Cooper on the nepotism thus naïvely revealed, professing himself to be convinced that it was impossible that Sir Astley Cooper should be actuated by other than friendly feelings towards such a family party—"a party united to each other, not only by the amiable ties of consanguinity, but by the no less delightful *vinculum* of a common participation in £3600 which they annually extract from the students." That same day (May 22nd, 1824) Wakley was excluded from attendance at the Borough Hospitals by order of the surgeons to the institutions, and from that moment for upwards of ten years the relations between THE LANCET and hospital officials, already strained, became those of overt and uncompromising hostility. The attitude of the officials was reasonable from their point of view. They looked upon the hospitals as theirs, not the public's. As a simple chronicler of events the medical journalist would be tolerated about their paths, a certain sort of publicity having its value to them; but if he began with criticism to spy out all their ways, to reflect upon the wisdom of their operations, the language of their lectures, their ties of consanguinity, and the substantial nature of their emoluments, he must be expelled. Wakley's attitude was equally reasonable. These men, he said, fear publicity, because they habitually betray their trusts. They discharge public duties inefficiently and fear lest the public should find them out. Therefore they drive out the truth-teller from among them.

Spurred on by a sense of duty, and not made more suave in his language by a rankling sense of the insult that had been put upon him, Wakley continued his Hospital Reports; and while he defied the authorities to prevent him from obtaining whatever information he desired, he spared no pains to prove to his readers that his view of their action was the right one—that they feared THE LANCET because they feared an ignominious exposure of their unworthiness.

(To be continued.)

THE ARMY ESTIMATES.

THE gross amount for the Army estimates for the year ending March, 1897, is £20,940,778, while the net estimate for the year is £18,056,600, which shows a net increase of £2800 on the previous year. The number of men to be provided for, exclusively of the army in India, is 156,174, an increase of 771 on last year. Turning to the items of interest to the medical services, we may say that the officers of the Army Medical Staff—including the headquarters staff—number 619, to which must be added 335 in the Indian establishment. Vote 2 provides for the medical establishment. The sum that is estimated as required for the year ending March 31st, 1897, on account of pay of the medical establishment, cost of medicines, &c., is £294,800, being a net increase of £2800 on that of last year.

Taking some of the sub-heads under which this vote is accounted for we find that the pay of the medical staff amounts to £233,200, exclusively of contingencies; that of militia medical officers and civilian medical practitioners to £10,600 (the estimated cost of medicines, &c., is £14,000); and that of pay for the medical staff corps, nurses, and other subordinates to £37,000. There are 6 surgeon-major-generals with 3 on the Indian establishment, 14 surgeon-colonels with 10 on the Indian establishment, and 474 medical officers of other ranks, with an additional 322 in India. The total numbers of the medical staff on the British establishment amount to 614 at a cost of £178,750 for home and £54,450 for the colonies respectively. The Director-General's pay is £1500 per annum, which is very small considering the size and distribution of the department he has to administer and all the duties and responsibilities of his office, especially when it is considered that the officer next in rank gets £1300 per annum. The total strength of the Medical Staff Corps is 2569, and the estimated total annual pay amounts to over £77,000. An appendix (No. 7) to Vote 2 gives a detail of the medical staff and subordinates in the different commands and districts at home and in the various colonial possessions. The estimated cost of the Army Medical School at Netley amounts to £7700, which is slightly above that of last year. The pay of the different professors ranges from £700 to £85 per annum. The total cost of the Staff College at Sandhurst we notice, amounts also to £7700, that of the larger institutions, the Royal Military College and the Royal Military Academy, being, of course, much more.

The memorandum of the Secretary of State for War accompanying the Army Estimates gives a lot of supplementary and explanatory information in regard to various points, and to some of these it may be interesting to refer.

As regards Egypt, we are told that the events which have recently taken place in that part of Africa render it impossible that there will be any reduction of the Egyptian garrison during the current year. This has reference to the hope expressed by Sir Henry Campbell Bannerman last year that it might be found possible to withdraw a battalion from Egypt in 1895. The recruiting for the army during the past year has, we are informed, proved satisfactory. The establishment of the army on Jan. 1st last was complete; the number of special enlistments below the standard had been progressively decreasing during the last five years, and the loss from desertion had been small in 1895 than in any year since the establishment of short service system, to which we may add that the intelligence and education of recruits are improving and the amount of crime in the army has been steadily decreasing of late years. The new system of hiring transports in lieu of maintaining troopships has been sufficiently long in operation to allow of a final decision as to the relative expense of the two systems, but so far as cost of hiring transports has not proved very great. Part of the expenditure for the Ashanti expedition has already been borne by the colony, but the remainder, £120,000, has been provided by means of a supplementary estimate. There is one item to which we may, in conclusion, call attention because it touches the sanitary well-being of the army, and it seems to promise that the good work which has been prosecuted in providing good barracks and hospitals for the troops is still to be carried on. The sums of £4,100,000 raised under the Barrack Act of 1890, and £2,600,000, raised under the Imperial Defence Act of 1888, having now been virtually exhausted, it is intended, by means of a further loan, to proceed with urgent services for Imperial defence and to provide for a steady prosecution of barrack reconstruction. The condition of the buildings in which a large part of the troops are housed, both at home and abroad, renders considerable expenditure for the latter purpose absolutely necessary.

THE BATTLE OF THE CLUBS.—XXIV.[1]

(Continued from p. 659.)

MEDICAL AID SOCIETIES IN SMALL HEATH.

EVERY medical man resident in Small Heath was invited to attend a meeting on March 6th last to consider the question of medical aid societies. There were present W. J. Notley, M.D. (in the chair), R. J. Adam

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham; (18) Jan. 25th, Club Practices in Rural and Mining Districts; (19) Feb. 1st, The Formation of a Provident Medical Association at Folkestone; (20) Feb. 8th, 1896, The Manchester Medical Guild and Medical Associations; (21) Feb. 15th, 1896, The Leicester and Leicestershire Provident Dispensary; (22) Feb. 22nd, 1896, The Organisation of the Profession at Leicester; (23) March 7th, 1896, Loughborough: Efforts Defeated by Consultants from Neighbouring Towns.

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T. A. Brown, M.B., A. B. Frost, A. Kingsland, J. Neal, H. Simms, F. W. Spiller, A. Stanley, F. R. Sutton, M.B.; and apologies were received from J. F. Taplin, M.D., and J. H. Mackenzie, M.B.

It was resolved:—

1. That in the opinion of this meeting it is unprofessional and undignified for medical men to hold office in any medical aid society or club in which "touting" is either openly or indirectly carried on.
2. That it is desirable that all those present who hold any such appointments shall collectively give notice by March 25th next, that they will terminate such engagements in three months from that date.
3. That a Medical Provident Club be formed for the neighbourhood of Small Heath, under the entire control of the profession, and open to every registered practitioner within the district (or neighbourhood), who shall sign a declaration to conform to the rules of the club, and not to hold office in any medical aid society or club in which "touting" is either openly or indirectly carried on.

A set of rules was then drawn up and agreed to, and officers were appointed for the first twelve months.

Great praise is due to the secretary of the Provident Club, who acted as whip, for to his untiring exertions the success of the meeting is in great measure due. Of the fifteen medical men in Small Heath only one stood out.

MEDICAL CLUBS AT STOCKPORT.

To the Editors of THE LANCET.

SIRS,—It will doubtless be of interest to the medical profession to hear what has been going on in Stockport.

In February of last year the Stockport Medical Society, through its council, drew up a scheme for club practice which met with the unanimous approval of the profession in the district as being fair to all parties concerned. An agreement was signed by every practitioner in the town binding himself not to accept any new club appointments nor any new members to his present clubs except on the terms of the scheme or such modification as might meet with the approval of a general meeting of the medical men. The scheme enclosed was then submitted to the clubs.

I.—Minimum payment (men only), 4*s.* 4*d.* per annum, on all who have been in benefit during the year, and resident within two miles of the club house.
II.—Members to attend at fixed hours when able. Messages for patients to be seen at their homes must be left, if possible, before a fixed hour. Only urgent cases seen on Sundays.
III.—Night visits and special visits are liable to be charged for as private visits.
IV.—Medical attendance to mean advice and ordinary medical and surgical attendance, exclusive of fractures, dislocations, and severe injuries, and all operations beyond opening superficial abscesses.
V.—Venereal diseases excluded.
VI.—Medicine bottles to be provided by patients or paid for.
VII.—Termination of appointment to be three months' notice on either side.
VIII.—Members with incomes over £100 per annum or occupying houses of £20 rental and over not to be included in medical benefits.
IX.—A fee of 2*s.* 6*d.* to be paid for examination of any candidate for admission to a club.

The clubs are thirty-eight in number and include about 4000 adult male members, the annual capitation fee being 2*s.* 6*d.* These clubs include Oddfellows, Foresters, Rechabites, and other friendly societies. There are, however, numerous other clubs in the town to which no medical officers are attached, and of these no notice was taken. Having submitted our scheme we awaited the replies. Practically no replies came; the clubs seemed to treat the matter with disdain. Accordingly at the beginning of this year the scheme was resubmitted to the various clubs, together with the following circular, signed by the particular medical officer, containing a request for the appointment of a delegate from each club to meet the medical men and discuss the whole question:—

"To the Committee and Members of ..... A scheme for the amendment of the present system of club practice was recently submitted to you on my behalf as embodying conditions which the medical practitioners of the town consider fair both to themselves and to the friendly societies. As you then declined to fall in with the suggestions offered, I now, as your medical officer, request you to consider the accompanying scheme and to appoint one member of your society, with instructions to act on your behalf, to attend a meeting of club representatives and medical men to be held at some time and place as may be arranged upon in the last week in February next in order to discuss the same and to come to a final understanding and agreement in the matter. Perhaps the selection of an impartial chairman would be agreeable to both parties. I have to inform you also that the medical men whose names are subjoined are in complete agreement in their intention to obtain an alteration in the present system, and none of them will accept any appointments except on the terms set forth in the scheme now submitted, or as may be agreed upon at the suggested meeting. I must request you to let me know before Jan. 31st, 1896, what your members decide to do in the matter.—Signed, ..., Medical Officer."

Of the thirty-eight clubs twenty-three appointed delegates, five flatly refused, and ten made no reply. However, one invitation card was sent to each club and a meeting was held, when the Mayor of Stockport presided. The usual arguments were brought forward by the medical men showing how inadequate the 2*s.* 6*d.* fee is for the work required. One surgeon, with an average of 560 club members on his books, gave nearly 5600 visits and consultations in 1893 and 1894 for a "remuneration" of 6·07*d.* per visit, medicine included. There is the usual complaint of the abuse of clubs by well-to-do members. It was also pointed out that forty years ago, when the 2*s.* 6*d.* fee was first accepted, the population of Stockport was 49,000, with sixteen medical men and very few practitioners in the surrounding villages, so that it may be safely computed that there was one medical man to every 4000 inhabitants. Now there are thirty-six practitioners in Stockport and the population is 75,000, and every village round has several qualified men in practice; at most a ratio of 1 medical man to 2200 of population. It was pointed out that in *all* practices there are certain standing expenses, and that the expenses of a practice do not by any means increase in direct proportion to the size of the practice—i.e., a practice of £1000 a year can be worked on expenses probably not more than 25 per cent. in excess of those of a practice of £600. The result is that our predecessors had larger scope for making their fortunes and a greater margin from which to allow for bad debts and unprofitable work. After a long discussion it was proposed that the delegates recommend a payment of 3*s.* 6*d.* per head. This was negatived by a large majority. The medical men then withdrew to discuss, and on their return they announced that they were unanimously determined to stand by the scheme as submitted, and failing its acceptance they were prepared to resign their appointments. The meeting then terminated. We are of opinion that our struggle should be brought to the knowledge of the medical world, since should the clubs refuse to accede to our demands two courses are open to them: (1) to dispense altogether with medical officers; or (2) to combine and appoint a medical officer to attend their members only, and this they threaten to do, at the same time starting a dispensary for the wives and families of the members. It may be remarked that under existing conditions should they introduce a new man of their own he would have charge of the health of some 4000 members scattered over a circle of seven and a half miles in diameter and an expectation of 20,000 visits a year at 6*d.* each.

On behalf of the practitioners of this town and borough I beg you to give publicity to our cause, a cause in which, if loyally supported by our brethren here and elsewhere, we are sure to win.

I am, Sirs, yours faithfully,
BASIL W. HOUSMAN, F.R.C.S. ENG.,
Hon. Sec., Stockport Club Scheme Committee.
Stockport, Feb. 28th, 1896.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6293 births and 4322 deaths were registered during the week ending March 7th. The annual rate of mortality in these towns, which had increased in the three preceding weeks, from 19·3 to 20·0 per 1000, further rose last week to 20·7. In London the rate was 21·7 per 1000, while it averaged 20·1 in the thirty-two provincial towns. The lowest rates in these towns were 14·1 in Croydon; 14·4 in Cardiff and in Hull; 15·2 in West Ham; and 15·9 in Derby; the highest rates were 23·3 in Oldham, 23·8 in Manchester, 24·6 in Liverpool, 25·4 in Plymouth, and 29·0 in Salford. The 4322 deaths included 590 which were referred to the principal zymotic diseases, against 561 and 580 in the two preceding weeks; of these, 250 resulted from measles, 157 from whooping-cough, 70 from diphtheria, 41 from diarrhœa, 35 from scarlet fever, 34 from "fever" (principally enteric), and 3 from small-pox. The lowest death-rates from these diseases were recorded in Swansea, Derby, and Preston, and the highest rates in Oldham, Birkenhead, Salford, Leicester, and Norwich. The greatest mortality from measles occurred in London, Newcastle-upon-Tyne, Salford, Leicester, Birkenhead, and Norwich; from whooping-cough in Sunderland, Sheffield, Bolton, Oldham, and Huddersfield; and from "fever" in Norwich.

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The mortality from scarlet fever showed no marked excess in any of the large towns. The 70 deaths from diphtheria included 46 in London and 3 in Liverpool. Two fatal cases of small-pox were registered in London and 1 in Bristol, but not one in any other of the thirty-three large towns. There were 52 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 7th inst., against 60, 58, and 51 at the end of the three preceding weeks; 13 new cases were admitted during the week, against 12, 5, and 1 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2857, against 2944, 2937, and 2933 on the three preceding Saturdays; 244 new cases were admitted during the week, against 303, 234, and 244 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 377 and 404 in the two preceding weeks, further rose to 433 last week, but were 187 below the corrected average. The causes of 80, or 1·9 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Oldham, Bradford, Sunderland, and in ten other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Leicester, Preston, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·5 per 1000 in each of the two preceding weeks, declined again to 19·2 during the week ending March 7th, and was 1·5 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 18·2 in Glasgow and 18·8 in Perth to 21·9 in Greenock and 23·5 in Paisley. The 560 deaths in these towns included 29 which were referred to whooping-cough, 11 to diarrhœa, 6 to measles, 6 to scarlet fever, 6 to diphtheria, 6 to "fever," and not one to small-pox. In all, 64 deaths resulted from these principal zymotic diseases, against 60 and 64 in the two preceding weeks. These 64 deaths were equal to an annual rate of 2·2 per 1000, which was 0·6 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 30, 32, and 27 in the three preceding weeks, rose again to 29 last week, of which 15 occurred in Glasgow, 7 in Aberdeen, and 3 in Edinburgh. The 6 deaths referred to measles showed a decline of 3 from the number in the preceding week, and included 3 in Glasgow. The fatal cases of scarlet fever, which had declined from 7 to 3 in the three preceding weeks, rose again to 6 last week, of which 3 occurred in Glasgow and 2 in Edinburgh. The 6 deaths from diphtheria corresponded with the number in the preceding week, and included 2 in Glasgow and 2 in Edinburgh. The deaths referred to different forms of "fever," which had been 5 and 2 in the two preceding weeks, rose again to 6 last week, of which 2 occurred in Dundee and 2 in Edinburgh. The deaths from diseases of the respiratory organs in these towns, which had been 120 and 111 in the two preceding weeks, further declined to 106 last week, and was less than a fourth of the very high number in the corresponding week of last year. The causes of 41, or more than 7 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 19·8 and 16 5 per 1000 in the two preceding weeks, declined again to 23 4 during the week ending March 7th. During the past ten weeks of the current quarter the death-rate in the city has averaged 25·0 per 1000, the rate during the same period being 19·7 in London and 17·5 in Edinburgh. The 157 deaths registered in Dublin during the week under notice showed a decline of 21 from the number in the preceding week, and included 7 which were referred to the principal zymotic diseases, against 2 and 9 in the two preceding weeks; of these, 3 resulted from whooping-cough, 2 from "fever," and 2 from diarrhœa, but not one either from small-pox, measles, scarlet fever, or diphtheria. These 7 deaths were equal to an annual rate of 1·0 per 1000, the zymotic death-rate during the same period being 3·7 in London and 2·3 in Edinburgh. The 3 fatal cases of whooping-cough exceeded the number recorded in any recent week. The deaths referred to different forms of "fever," which had been 3, 1, and 5 in the three preceding weeks, declined to 2 last week. The 157 deaths registered in Dublin last week included 23 of infants under one year of age, and 45 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed an increase upon the numbers recorded in the preceding weeks. Three inquest cases and 3 deaths from violence were registered; and 61, or more than a third, of the deaths occurred in public institutions. The causes of 15, or nearly 10 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-MAJORS MYLES and NODING and SURGEON-CAPTAIN BROWNE have arrived from India. Surgeon-Captain Luther has embarked for Malta on exchange. Surgeon-Major A. W. Browne has been appointed to the Women's and Children's Hospital at Devonport. Surgeon-Major Morris has been posted to Dover, and Surgeon-Major Robinson to Aldershot.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Major Samuel John Thompson, Deputy Sanitary Commissioner, North-West Provinces and Oudh, is appointed to officiate as Sanitary Commissioner, North-West Provinces and Oudh, during the absence on deputation of Brigade-Surgeon-Lieutenant-Colonel George Hutcheson. The services of the undermentioned officers of the Indian Medical Service (Bengal) are replaced at the disposal of the Military Department:—Surgeon-Captain Edmund Alexander William Hall, M.B., C.M. Surgeon-Captain Patrick Wilkins O'Gorman, and Surgeon-Captain Christopher Clemons Cassidy.

NAVAL MEDICAL SERVICE.

Fleet-Surgeon Francis Reginald Malcolm Loftie has been placed on the Retired List at his own request.

The following appointments are notified:—Surgeons: Hubert W. A. Burke to the *Medea;* Frederick W. Stericker to the *Research;* Henry W. Hull to the *Triton;* and Murray P. Jones to the *Wanderer*.

YEOMANRY CAVALRY.

Surgeon-Captain W. W. Wingate-Saul, M.D., to be Surgeon-Major.

VOLUNTEER CORPS.

Artillery: 3rd Middlesex: Surgeon-Major J. Cook, M.D., to be Surgeon-Lieutenant-Colonel. 1st Argyll and Bute: Surgeon-Lieutenant Banks, M.B., to be Surgeon-Captain. *Fortress and Railway Forces, Royal Engineers:* 2nd Gloucestershire (the Bristol): Surgeon-Major J. Knill to be Surgeon-Lieutenant-Colonel. *Rifle:* 2nd Volunteer Battalion the Welsh Regiment: Albert Wilberforce Shepard gent., to be Surgeon-Lieutenant. 5th Volunteer Battalion the Durham Light Infantry: Surgeon-Lieutenant Richard Brown, M.B., is appointed Second Lieutenant.

Commissions signed by the Lieutenant-Governor of the Isle of Man: 7th (Isle of Man) Volunteer Battalion the King's (Liverpool Regiment): Surgeon-Lieutenant Thomas Mackenzie, M.D., to be appointed Second Lieutenant; William Richardson, M.D., to be Surgeon-Lieutenant.

THE CASE OF SURGEON-CAPTAIN FOWLER.

From what has already taken place in the House of Commons it seems clear that the case of Surgeon-Captain Fowler is not to be allowed to rest where it does at present. This officer was detailed for duty with a militia regiment during the annual training. On one occasion a gross act of impropriety took place, of which a senior captain of the regiment and Surgeon-Captain Fowler were the witnesses. We do not know which of them was the senior, for we suppose if the medical officer was not the senior he was not the responsible officer. The medical officer promptly remonstrated and with the desired effect, but he did not consider it his duty to officially take further notice of the matter by placing those implicated in arrest or by reporting it to superior authority to be dealt with as a matter of discipline because a senior captain of the regiment was present on whom he naturally considered, we presume, that

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the duty devolved of taking action in the matter. The occurrence became known and a court of inquiry followed, but it does not appear that anything was stated as to the fact of a regimental officer of the rank of captain having been present. Surgeon-Captain Fowler was dismissed the service; he appealed, stating the circumstances, and was thereupon allowed to retire from the service. The captain, having since acknowledged that he was present, has been dismissed. Surgeon-Captain Fowler has nine years' service and, we believe, bears an excellent character; the punishment meted out to him seems to be very severe under the circumstances. The subject is one which certainly calls for further inquiry. It must be remembered that Surgeon-Captain Fowler had nearly served sufficient time to entitle him to a considerable sum as a gratuity, which may be regarded in the light of deferred pay for past service. Even assuming that from a military and disciplinary standpoint he failed to take the right course, it is highly probable that his motive was a very proper one and that he took what seemed to him the best course under the circumstances in the interest of the service.

THE ITALIANS IN ABYSSINIA.

The gravity of the disaster that has befallen the Italian army in Abyssinia is not only recognised by Italy but by the other Powers of Europe. Abyssinia is, from topographical and climatic points of view, a very difficult country for campaigning; it is mountainous and barren, without roads and with little available water and great diurnal variations of temperature. The force at the disposal of King Menelik was a large and overwhelming one, and his troops had the advantage of knowing the country and of course occupied the best available positions. That the fighting was very severe and that the Italian troops behaved with remarkable courage and gallantry are undoubted; they were, however, not only outnumbered but surprised and outmanœuvred also. The Shoans, we are told, in the excitement and vigour of their onslaught paid no respect to the hospital corps, firing both on the medical officers and wounded. The losses on both sides were severe, and there is no doubt that the Shoans had a very large number of their men slain and wounded and that they were too much crippled to follow up their success. A telegram from Massowah to the Central Committee of the Red Cross Society at Rome announces that mountain ambulances have been dispatched to the Shoan camp to the aid of the wounded Italians. The situation of the Italian force in Abyssinia is still critical. The news of the evacuation of Kassala has not been confirmed, and it seems unlikely that the garrison would incur the grave danger to which they would be exposed by evacuating it. Adigrat, which is still held by the Italians, is said to be a very strong position.

THE ENTRANCE EXAMINATION FOR THE ARMY MEDICAL STAFF AND INDIAN MEDICAL SERVICE.

We hear that a redistribution of the marks obtainable at the entrance examination for the Army Medical Staff and Indian Medical Service is being seriously contemplated. The proposal, as far as we understand it, is to give a greater number of the total marks to the subjects of medicine and surgery and to reduce those awarded for anatomy and physiology and chemistry and pharmacy. We hope the matter will be seriously considered before any change is made, as it appears to us that the standard of the candidates might be lowered if the entrance to the Netley course is to be won almost certainly by a high percentage of marks in medicine and surgery only. Under the rules now obtaining the university graduate, who has passed through a more extended training in anatomy, physiology, chemistry, and the natural sciences, has a distinct advantage over the licentiates of the different colleges, and it must be to the advantage of the Army Medical Services to still attract men who have graduated at universities. It has often been said that, considering their opportunities, the medical officers have contributed little to the world of science. To reduce the standard of marks in scientific subjects may prove a distinct retrogression and especially as far as the Indian Medical Service is concerned. It appears to us that if any changes are to be made in the examination they should be in the direction of increasing the possible number of marks which can be gained in languages and the natural sciences, as on these extra marks the position of the candidates on the lists usually depends.

THE DRAINAGE OF ALDERSHOT CAMP.

The Treasury has still under consideration a contribution by the Government to the cost of the drainage of Aldershot urban district in lieu of rates, and so a scheme of surface water disposal has not met with approval at the War Office. The urban council had included the surface drainage of the Wellington Lines in their scheme, but the War Office think, in the circumstances named above, it is "inadvisable to include in the draft a provision for a contribution from army funds to the proposed drain." It is necessary that a large main be put in at once; but the council is doubtful in the event as to how they will stand with the Government authorities with regard to their share of the cost, especially if the whole of the sewerage scheme with its proposed Treasury contribution be thrown out. It has been decided to do the work, however, and ask for the necessary Local Government Board inquiry.

ANTHROPOMETRY IN INDIA.

The *Times of India* says: "While we hear but little of the progress of the Bertillon system of anthropometry for the detection of criminals in Bombay, the further development of the process is being prosecuted with untiring energy on the Bengal side, where, although still in its infancy, it has been gratifyingly fruitful in results. An officer in Bengal was deputed during the year to instruct the Bombay Police in the Bengal system, and another officer was sent to the North-West Provinces with the same object. In due course the Bertillon net will be spread all over the country, and we shall in the fulness of time doubtless see a large diminution in the serious crime for which the habitual offender is so largely responsible."

By the selection of Surgeon-Major-General J. Jameson as successor to Sir W. A. Mackinnon, K.C.B., in the office of Director-General, Army Medical Staff, an additional vacancy in the rank of Surgeon-Major-General will be created, as Dr. Jameson would not have been due for retirement till August, 1897, whereas Surgeon-Major-General Paterson will be retired for age in July next.

Correspondence.

"Audi alteram partem."

THE TWELFTH INTERNATIONAL MEDICAL CONGRESS AT MOSCOW.

To the Editors of THE LANCET.

SIRS,—I beg to forward you copies (translations) of two documents which I have received from Professor Erisman, the general secretary of the Twelfth International Medical Congress. The first relates to the languages which will be admitted in the discussions at the Congress, the second to the subdivision of the Congress into sections. Professor Erisman will be greatly obliged if you will publish them in the columns of THE LANCET. I should add that I have also received from him a private letter in which he urges, in even stronger terms than in the enclosed, the points that are there set forth.

I remain, Sirs, yours obediently,
YOUR ST. PETERSBURG CORRESPONDENT.

I. (TRANSLATION.)

In order to avoid undesirable controversy upon the twenty-first paragraph in the regulations of the Twelfth International Medical Congress, which recognises French as the official language of the Congress, but admits the use of other European languages at the general meetings and of German and Russian in addition to French at the sectional meetings (from which English, Italian, and all other European languages will be excluded) the committee of the Congress deem it necessary to offer the following explanation to their foreign colleagues. The inconvenience arising from the use of a large number of languages has become increasingly evident in previous congresses until, after that at Rome, the medical press of all countries repeatedly urged the necessity for recognising some one official language for all papers and discussions at future Congresses, and French was unanimously named as the most suitable. The Medical Faculty of the University of Moscow, in drawing up the regulations of the twelfth Congress (to which the executive committee were bound to adhere), could not but take into consideration this persistent demand of the medical press, and therefore recognised French as the official language of the Congress, French being the language of diplomacy, and the tongue which has long served for international communications between the governments of all European countries. But on the present occasion it proved impossible to carry out the principle of one language to the exclusion of all others. It was found that Russian must be admitted, even if only in principle. At the same time, however, both the Medical Faculty and the Executive Committee felt that from a sense of delicacy (*delicatnost*) towards their foreign guests, Russian members of the Congress should refrain, as much as possible, from the use of their own tongue,

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as it is so little known to foreigners. But under these conditions a new difficulty appeared. A large number of Russian medical men who have studied at German universities or from German text-books know German better than they do French, and therefore to admit the use of French alone would have been extremely irksome (*stiĉnitelnuim*) for our Russian colleagues, who would have already refrained, on the ground above mentioned, from using their own language. Consequently the medical faculty did not think itself justified in excluding altogether the possibility of speaking in German as an alternative to French. But, while admitting on these grounds two foreign languages to the discussions at the Congress, we do not hide from ourselves the fact that we have departed, albeit from necessity, from the principle of a single language, and we are of opinion that for future Congresses every effort should be made to return to that principle in its strictest form.

(Signed) F. ERISMAN,
General Secretary of the Twelfth Congress.

II. (TRANSLATION.)

In dividing the Congress into sections (paragraph 7 of the regulations) the Medical Faculty of the University of Moscow has in the main preserved the plan adopted at the Congresses of Berlin and Rome, and the principal sections of the next Congress will correspond, with some minor exceptions due in part to local conditions, to those in use on previous occasions. A more important departure from the practice of former Congresses has been introduced in a few sections where it was thought desirable to unite certain specialties under one head. Thus, for instance, hitherto otology, laryngology, and odontology have formed entirely separate sections. On the present occasion both the faculty of medicine, and the executive committee, while they fully recognise the independence of these specialties, have thought it better to join them to the general section of "surgery," in order to show that they belong essentially to the great field of clinical medicine in general and surgery in particular. It need scarcely be said that this innovation will not in any way whatever limit the opportunities of representatives of these specialties to discuss them at the Congress; but it will, on the other hand, enable general surgeons to take part in the discussions of subjects so closely allied to their own work as otology, laryngology, and odontology, and *vice versâ*. Consequently, this measure should in no way be regarded as one that will inconvenience specialists, but as a justifiable attempt to do away with the inevitable evil results of extreme subdivision in the subjects considered by the Congress. The same thing may be said with regard to matters relating to military medicine. The character of this group has never been clearly defined at former Congresses. In Berlin it was called "Military Sanitaria"; in Rome, "Military Medicine and Surgery," while as a matter of fact it included subjects belonging to every branch of medicine as applied to military matters, though the most important, of course, were those of field surgery and sanitation in the army. Consequently the medical faculty, while recognising a certain independence for this group of subjects (in Subsection IX a), has at the same time thought it best to join it to the general section of Surgery (Section IX). For the like reasons all branches of Practical or Applied Hygiene, which have sometimes formed special sections (e.g., Railway Hygiene, Sanitary Technique, &c.), have been united by the committee to the general section of Hygiene, as it seemed better that such questions should be discussed by all members of the Congress interested in hygiene, whether from a theoretical or a practical point of view. After what has been said no objection will probably be raised to the addition of Hydrology and Climatology to the section of General Therapeutics and Pharmacology. We repeat that both the medical faculty and the executive committee, in making these changes, have been far from the desire to cause inconvenience to specialists, and had in view solely the wish to emphasise the real union between different specialties; and they feel convinced that such an attempt to bring together the work done in the separate groups of subjects cannot but prove of general advantage.

(Signed) F. ERISMAN,
General Secretary of the Twelfth Congress.

"THE MEDICAL DEFENCE UNION, LIMITED, AND THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED."

To the Editors of THE LANCET.

SIRS,—The only error in your reporter's account of what I said with reference to the proposed amalgamation at the annual meeting of the Medical Defence Union is that in reporting the sentence quoted by Dr. Heron and Mr. Bruce Clarke in their letter to you of Feb. 29th your reporter uses the word "committee" in place of the word "Council" as used by me, and I did not think that this trivial inaccuracy in your otherwise excellent report needed any public correction on my part.

Up to March 6th, 1896, the only point of difference remaining was, as I stated, that of "the name of the amalgamated bodies"; whether, in fact, the registered name agreed upon by all the delegates—viz., Dr. Heron, Mr. Bruce Clarke, Dr. Bateman, and Mr. Horsley—namely, "The Medical Defence Union, Limited," should be changed or not. It is not in any sense legally necessary for the purposes of amalgamation to make such change, and since all the delegates agreed that upon all official papers and documents the words, "with which is amalgamated the London and Counties Medical Protection Society," shall follow the word "Limited" in the title, the fact of amalgamation will be made so plain that this question is clearly not a point that can reasonably check the further progress of the amalgamation in question. On March 6th, however, Mr. Oakley, solicitor to the London and Counties Medical Protection Society, raised a number of fresh obstacles, which I sincerely hope and expect the combined Councils will have no difficulty in removing.

I am, Sirs, yours faithfully,

VICTOR HORSLEY,
March 11th, 1896. President, Medical Defence Union.

"FUNCTIONAL APHONIA IN MAN; TREATMENT, ETC.; WITH SPECIAL REFERENCE TO SO-CALLED VARICOSE VEINS AT THE BASE OF THE TONGUE."

To the Editors of THE LANCET.

SIRS,—I notice that most of the letters published by you upon the above subject are written by throat specialists; I think it not out of place therefore that your readers should know some of the experiences of a general practitioner. In one case a patient of mine contracted a sore throat whilst taking a short holiday in London. He was persuaded by his friends to consult a throat specialist; he was told that he had varicose veins at the base of the tongue, and to make it more clear to him it was explained that he had "piles" in that region. The electric cautery was used, and the result was a great deal of pain and, of course, no relief of the throat symptoms. A few days after the patient returned home and had a very severe pneumonia from which he almost died. In two other cases, one of simple aphonia and another of simple enlarged tonsils, the electric cautery was again applied for so-called "varicose veins." In the first case no good result was obtained until the patient had a prolonged rest at the seaside, and in the second not until I had removed the tonsils a month after. At the present time I have a patient who was taken ill with a violent fit of coughing whilst paying a visit in London. He was hurried by his friends to a throat specialist who at once found the conditions supposed to be present in the other cases I have mentioned and, in addition, also a "turbinal varix." This patient still goes up to town at short intervals and undergoes excruciating agonies as the result—and only result—of the use of the electric cautery. In conclusion, I would suggest that these cases of so-called "varicose veins" (which have only comparatively recently been discovered) in all probability have always existed, and in a large general practice I am unable to discover that throats are more unhealthy now than they were twenty years ago, and presumably these "varicose veins" have appeared and disappeared in many throats without operative interference of any kind. There is one question I should like to ask before closing this letter. Is the good old custom of the specialist writing his opinion, &c., of a case falling accidentally into his hands to the usual medical attendant gone out?

Believe me, Sirs, yours very faithfully,

Salisbury. HARCOURT COATES.

To the Editors of THE LANCET.

SIRS,—Much to my regret, Mr. Lennox Browne, by his letter in your current issue forces me to return to a subject which, in the minds of some of your readers, including myself, concerns the honour of laryngology. I feel it especially incumbent on me to claim your indulgence in further encroaching on your space to render my position in regard to this subject clear, inasmuch as Mr. H. T. Butlin, Dr. de Havilland Hall, Dr. Greville Macdonald, Dr. Felix Semon, and Mr. Charters Symonds, by their conjoint letter in your issue of Feb. 29th, "fully endorse" my views as stated in my communication in THE LANCET of Feb. 22nd. The fact that five physicians and surgeons known throughout the profession as distinguished laryngologists should take this course is in itself a sufficient indication of their intense desire to dissociate laryngology from narrow and exaggerated views and practices based thereon. Mr. Lennox Browne addresses you thus (THE LANCET, March 7th, p. 653):—"I venture to advise the signatories" (to the above-mentioned conjoint letter) "to compare my article in the *Liverpool Medico-Chirurgical Journal* with the letter of Dr. Watson Williams in your issue of Feb. 22nd. That gentleman having read the communication wrote to me in the past week, regretting that he had overlooked it, and saying that he was in entire accord with the opinion I have expressed as

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to the importance of looking beyond the local causes in these affections."

With all courtesy I very strongly protest against Mr. Lennox Browne twisting a sentence (see below) used in reference to an expression in a private letter from him, so as to make it appear to refer to his published communications, and to involve me in a partial recantation from the position I took up originally, a position from which I cannot depart. I impute no motive to Mr. Lennox Browne, but your readers will judge for themselves whether he has been fair to myself, and therefore to the signatories who endorsed my statements. On Feb. 21st Mr. Lennox Browne, seeing my letter in THE LANCET, wrote to me as follows: "I am posting you a copy of my paper to the *Liverpool Medico-Chirurgical Journal*. I don't think I have ever been one not to recognise and even to enforce the importance of looking beyond local causes, and I hope you will find that I am not behind in that respect in the subject now under discussion." On Feb. 22nd I replied in these terms: "Thank you much for your courtesy in sending me a reprint of your recent article just to hand, which I am sorry to say, had escaped my notice. I am certainly in entire accord with the opinion you express in your letter as to the importance of looking beyond local causes in these affections."

Now I did not express any opinion on Mr. Lennox Browne's article in my letter of acknowledgement to him, for I did not feel called upon to do so (and in fact had not read it when I wrote that letter), and I would refrain from any personal criticism whatever had he left me any option in the matter. In my first letter to your journal, I referred to no one in particular in my protest against the caricature of laryngology as a branch of scientific medicine which I considered was in danger of being mistaken by some practitioners for a genuine portrait. But Mr. Lennox Browne will forgive me for feeling that he compels me to conclude that (judging from his publication in the Liverpool journal) he must be the head and forefront of the offenders as regards lingual varix, since he finds that 28·3 per cent. of all the cases seen in his private practice suffered from this affection, and that in 28 per cent. of his "varix" cases the varicose condition "was unassociated with any other objective local evidences." When we are left to infer that all these cases are treated by him by the galvano-cautery point I think Dr. McBride was well warranted in writing, "if we are to cauterise every venous radicle which appears in front of the epiglottis we shall put our patients to much needless inconvenience, and perhaps to some very unnecessary expense." In calling attention to these figures I impute no mercenary motive to those who may, in my opinion, exaggerate the importance of these venous radicles, but the results to the patients for good or evil remain the same, whatever the motive.

I am, Sirs, yours faithfully,

Clifton, Bristol, March 8th, 1896. P. WATSON WILLIAMS.

P.S.—I shall feel grateful if you would kindly forward an early proof of the above to Mr. Lennox Browne, so that he may correct me if I have unintentionally misconstrued his communications at the same time as this appears.

To the Editors of THE LANCET.

SIRS,—I am obliged to you for adopting the courteous suggestion of Dr. Watson Williams that I should see an early proof of his letter, and I hasten to take advantage of the opportunity thus given me of promptly correcting him. He has certainly misconstrued my allusion to him, for it must be evident by context of the two letters that I quoted him in the belief that he, having read not only my letter but the article which had previously "escaped his notice," acknowledged that I had not failed to recognise "the importance of looking beyond local causes in these affections." Dr. Watson Williams breaks new ground on which, were I disposed, I could further correct him, but I will not trespass on your space.

I am, Sirs, yours faithfully,

LENNOX BROWNE.

Mansfield-street, Portland-place, March 11th, 1896.

To the Editors of THE LANCET.

SIRS,—In your last number Mr. Lennox Browne refers to my previous letter as if it supported his views and condemned those of Dr. Tilley, Dr. Watson Williams, Dr. Semon, Dr. de Havilland Hall, Dr. Greville Macdonald, and Mr. Butlin and Mr. Charters Symonds. On reference to the letter in question it will at once be seen that exactly the reverse is the case. Let me, Sirs, once more repeat my belief that dilated veins on the tongue rarely, if ever, cause symptoms or require local treatment. I hope that this will not admit of any misinterpretation.

I am, Sirs, yours faithfully,

Edinburgh, March 10th, 1896. P. MCBRIDE.

"THE HUDDERSFIELD POISONING CASE."

To the Editors of THE LANCET.

SIRS,—I see in the notice *re* the Huddersfield poisoning case in THE LANCET of Feb. 29th that you say it was unfortunate that no urine was taken, but in this you have made a slight mistake. I may say the urine was examined the first of all and in it was found mercury, but I had no proof as to how it had been administered or by whom, and my wish was, if possible, to bring the crime home to the right person. I am, Sirs, yours truly,

L. DEMETRIADI.

New North-road, Huddersfield, March 2nd, 1896.

"MEDICAL CERTIFICATES AND THE BOARD SCHOOLS."

To the Editors of THE LANCET.

SIRS,—Will you kindly do me the favour to give space in THE LANCET to draw attention to the right of refusing to give certificates to scholars of School Boards? The parents of the children who happen to be my patients bring me a form supplied by some School Board official to be filled and signed. I have refused to sign them, remarking that I am not a paid servant of the School Board, and that in case they are summoned I am quite prepared to give evidence that the child was not fit to go to school. These remarks were communicated to the official, who made a complaint to the Board about my conduct. The chairman called on me about it and said that legally I had a perfect right to refuse to give certificates without a fee, but that I was the only one who refused to do so, adding that if other local practitioners followed my example the Board would seriously consider the question of granting a fee. Now, Sirs, I ask your opinion whether I have adopted a proper course in doing so; if it is so, why should my brother practitioners not follow the same plan to gain our much-abused rights? Lately I have read so much about the insult offered to the profession by some of the School Boards that it is high time we did something to stop it. I am, Sirs, yours faithfully,

J. F. D'ABREU, L.R.C.P. Edin., &c.

Handsworth, March 10th, 1896.

"THE COMPARATIVE NUTRIENT VALUE OF MEAT PREPARATIONS."

To the Editors of THE LANCET.

SIRS,—I regret that when writing the letter which, under the above heading, you kindly inserted for me in THE LANCET of last week, my memory did not serve me rightly in the reference I made to an account which *Food and Sanitation* published several months past on this subject, and which error I wish, with your kind indulgence, to correct. In the absence of the article referred to, to ensure my recollection, I said that in that paper bovril was stated to be one hundred and fifty-two (152) times superior as a nutrient to Valentine's meat juice, whereas I find on looking over and working out "Professor Chittenden's Percentage Composition of Beef Products, analysed 1891" tables, which you print on page 649 of your journal (March 7th, 1896), and from which presumably *Food and Sanitation's* calculations originated, that Liebig's extract of beef is the preparation whose proportion of "total proteid matter available as nutriment" or of nutrients as I understood *Food and Sanitation* to then imply, is so fractionable when opposed to that of bovril. This difference was, I am inclined to think, a novelty to others as well as to myself at the time, as upsetting previous ideas. With regard to Valentine's meat juice I think I need offer very little apology to *Food and Sanitation* for the mistake I made, considering the esteem in which it is held by that publication. Its value as a nutrient under the same conditions as before, I reckon from the same tables, must have been estimated by your contemporary at sixteen

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and a half (correctly 16·581) less than that of bovril. Assuming as correct that it did, I have no doubt my mind was influenced by its declaration, since for some time past I have been under the impression that bovril was a better food than Valentine's meat juice. Well do I recollect, and not so very long ago either, when I understood that the value of these two products as nutrients was in a somewhat inverse ratio to that which *Food and Sanitation* makes it out to be; and now that you have pointed out that *Food and Sanitation*, in stating that Valentine's meat juice is about equivalent to "the water in which dinner plates are washed," omitted to define the scope of Professor Chittenden's investigation as limited or as only giving "the total amount of proteid matter contained as compared with the amount in fresh lean beef," without entering into the considerations of extractives and other stimulating constituents, I will henceforward conclude that *Food and Sanitation*, in not accepting your challenge of an independent inquiry into the matter, has failed to substantiate its assertions and has erred in its view of the subject, either through ignorance of what it is talking about or from a want of due consideration, and I will therefore revert to my old opinion—viz., that bovril is "not comparable with Valentine's meat juice"—until it is proved to me to be wrong by an unquestionable authority. Thanking you in anticipation for your favour,

I am, Sirs, yours faithfully,

Llansillin, March 9th, 1896. R. HILL SHAW, M.B. Dub.

To the Editors of THE LANCET.

SIRS,—Your annotation of Feb. 22nd, whilst justly emphasising the vital importance to medical men of a thorough knowledge and confidence in the relative value of meat preparations, also indicated the only sound principles of their production. As further interest has been shown in the subject I venture to draw your attention to two points which may throw some light upon the matter. In the first place you give marked prominence to albumin as being the predominating proteid of meat juice. According to our text-books this is incorrect. Halliburton even says that dry albumin is identical with a variety of serum albumin coagulating at 73° C. and is present in extremely small quantities.[1] The predominant proteids are globulins (chiefly myosin in the proportion of 10 per cent. to 15 per cent.), which coagulate at lower temperatures than does albumin—viz., myosinogen at 56° C. and myoglobulin at 63° C. There seem to be no figures given as to the exact amount of albumin in muscle, but there can be no doubt that it exists only in insignificant quantities, the heat coagulation being obviously due chiefly to the globulins, a point which can be determined by carefully applying the test and confirmed by saturation, so exposing any sophistication by added albumins. It does not follow, therefore, that because a meat juice conforms to the heat coagulation test it is necessarily a pure muscle juice expressed in the cold.

Another point to which I would draw your attention is the inconsistence of a cooked meat flavour occurring in a preparation which has been expressed in the cold. The aromatics must either have been added or developed by the aid of heat. With regard to the meat juice which you mention (Valentine's) I find that according to the specification it is not prepared by a cold process, but is exposed to a temperature just below 140° F. (60° C.) for fifteen minutes before it is expressed. So far as I am aware there is only one meat juice which has not a cooked flavour, and it is prepared entirely by expression in the cold. That one is liquor carnis, and I must say that its taste does not commend it, yet there is no doubt that it is a pure muscle juice, prepared by the method which you justly emphasise as being essential to the maintenance of purity and nutrient value. The chemistry of muscle, whilst satisfying physiologists, fails to afford tables which represent either the real or approximate composition in a practical way useful to the practitioner, and an authoritative statement as to the composition of muscle would, I feel sure, be greatly appreciated.

I am, Sirs, yours faithfully,

Devonshire-street, W. WYATT WINGRAVE.

"NUTROA FOOD."

To the Editors of THE LANCET.

SIRS,—In answer to the letter of Dr. Halliburton in your issue of the 29th ult., I feel it incumbent on me to say that the statement to which he objects is based on a report on Nutroa Food written by me and furnished to the proprietors of that food. Its consequent publication by them was therefore absolutely a matter of good faith. In reply to Dr. Halliburton's categorical statement I wish to point out:—1. That the figures referred to were derived from a published work by Dr. Halliburton, and therefore his sanction for the mention of his name as the authority for them was neither asked for nor required. 2. That the expression "Ideal diet for Children" was never attributed to Dr. Halliburton by me, but is a phrase for which I assume the entire responsibility. 3. That while the figures quoted are given by Dr. Halliburton as the "average minimum diet," yet the table from which they are derived is widely if not universally recognised as the authority on the most desirable *proportion* of each constituent of a standard diet. Its use for this purpose is perfectly familiar to food specialists. In fact Dr. Halliburton's complaint that the first line of the table is ignored is in itself an indirect admission that he also regards it as such. My instructions when requested to experiment with and report on Nutroa Food were that I should obtain and place side by side with analyses of Nutroa Food some independent data as to what was the most desirable proportionate composition of children's diet of different ages. My own view is that figures giving such most desirable proportionate composition are to that extent representative of an "ideal" diet; but in any case the word "ideal" is mine, and I have not the slightest wish to make Dr. Halliburton responsible for its selection instead of any one of a dozen other equally suitable phrases.

It is entirely misleading to suggest that the figures as given are intended to apply to infants under the age of eighteen months. My report first deals with children of mature age (and for such Dr. Halliburton does not contest the suitability of Nutroa Food); it then proceeds to deal with the food of "very young infants," and points out that they require a different diet. The report, so far from ignoring their requirements, contains a table in which is given side by side the composition of human milk and Nutroa Food as directed to be prepared for infants by the makers—viz, with the admixture of a small quantity of fresh cow's milk. It is on the evidence adduced in this section of the report that the claim of Nutroa Food to be considered a valuable constituent of infantile diet is based. I must further point out that my report does not ascribe to Dr. Halliburton in the slightest degree any responsibility whatever, direct or indirect, for any opinion as to the merits or demerits of Nutroa Food, whether as a food for children of mature age or for young infants.

Dr. Halliburton concludes his letter by saying that "he does not consider this food in any sense a substitute for human milk." I am pleased to be able to say that after many months' investigation I have come to a diametrically opposite conclusion. I not only consider that Nutroa Food as directed to be prepared for infants by the makers is a substitute for human milk, but further that among prepared foods it is far and away the best substitute which it has yet fallen to my lot to examine.

I am, Sirs, yours very truly,

35, Queen Victoria-street, E.C. WILLIAM JAGO.

To the Editors of THE LANCET.

SIRS,—In reply to Dr. Halliburton's letter in your last issue will you kindly permit us to say that the pamphlet advertisement referred to was based on a report received by us from Mr. Wm. Jago, F.I.C., F.C.S., whose high and honourable repute as a chemist and specialist in the department of food products amply justified us in using his report without question? We may mention, however, that we have already had some correspondence with Dr. Halliburton on this subject; and that although we considered, and still consider, that the quotation of that gentleman as authority was perfectly legitimate, yet we told him that we would remove his name from all future reports and would if he wished make no further use of those already in print. Our sole reason for doing this was that we had no desire to do anything which should be objectionable to Dr. Halliburton; and, further, we expressed regret for any annoyance we had unintentionally caused him. We venture to submit that in so doing we have done all that can reasonably be expected of us. We would ask the members of the medical profession to whom this dispute is of any interest to apply to us direct for a copy of Mr. Jago's report, and to judge for themselves

[1] Journal of Physiology, vol. viii., p. 197.

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whether we have in the slightest degree misrepresented the properties and character of Nutroa Food.

So far as Dr. Halliburton's opinion that Nutroa Food is not a substitute for human milk is concerned we may, perhaps, be permitted to add that that gentleman is in a very small minority, as we have abundant evidence of the marked success attending the use of Nutroa Food *when properly prepared* according to directions as a food for young infants.

We are, Sirs, yours truly,

NUTROA, LTD.

(C. Simpson, Managing Director.)

London, March 5th, 1896.

THE NEW PHOTOGRAPHY.

To the Editors of THE LANCET.

SIRS,—Great improvements have been made during the past few weeks in the Roentgen photography, and the process has now been sufficiently developed to render it of practical value in surgery and medicine. Its successful application, however, requires expensive apparatus and special appliances, the working of which necessitates some technical knowledge. Under these circumstances, on the advice of several eminent physicians and surgeons, I have decided to establish at this address a laboratory specially devoted to the purpose. This will be equipped with the most improved apparatus, which will be added to as experience and experiment show to be advisable. The work will be carried out under my supervision by one of my assistants, Mr. H. L. Tyson Wolff. It is hoped that these arrangements will prove of service to medical men who may desire to have the process applied to their patients. The laboratory will, it is expected, be in working order in the course of a few days. I am, Sirs, yours faithfully,

66, Victoria-street, S.W., March 10th, 1896. A. A. C. SWINTON.

"THE WORKING CLASSES AND OUR HOSPITALS."

To the Editors of THE LANCET.

SIRS,—In your leaderette under the above title you have honoured us by criticising our letter to the *Times* suggesting a systematic adoption of a plan which we have only tried for several years past—viz., inducing our employés to give a small contribution to hospital support and to which our firm adds a like amount. We may at once state that neither we nor our workpeople "regard hospitals as places to which the working man could go as of right and demand attendance for the ordinary ailments and accidents of his family," as, although not stated in our letter to the *Times*, we possess a sick fund supported entirely by the men, many of whom also belong to friendly societies, from which they also obtain medical attendance. Therefore we cannot be charged with "a misconception of the *raison d'être* of the hospital system," but we do consider that in case of serious accident in which the want of immediate attention may mean the cost of human life, or "in cases of gravity beyond the ordinary means of a working man" is the *raison d'être* of the hospital system, and not for the relief of the feelings of the benevolent rich alone, upon which the writer of the article appears to lay such stress. Our suggestion was made more for the purpose of obtaining auxiliary support from those who can afford to give and who would most likely obtain hospital assistance. And we reiterate "that there are thousands of employers in London"—shopkeepers, manufacturers, &c.—willing to double the halfpenny their employés can well afford to give; and this system, if taken up by persons ready to do good but who perhaps may not see the way, might place the hospitals of London in the position of plenary effectiveness without the perennial necessity of an appeal.

We are, Sirs, yours faithfully,

HORATIO MYER AND COMPANY.

Surrey Ironworks, Vauxhall, March 9th, 1896.

*** We gladly insert the letter of Messrs. Myer and Company showing their clear perception of the difference between giving charitable help to hospitals as charities and paying contributions to them as if they were provident dispensaries. We hope the publication of their letter will do good in making the difference clear to others—employers and employés.—ED. L.

"WHAT IS A NATURAL LABOUR?"

To the Editors of THE LANCET.

SIRS,—Dr. Fraser's letter in THE LANCET of Jan. 18th reminds me of an episode in my life many years ago, when I went up to a certain College of Surgeons, with the view of obtaining a diploma in midwifery. I considered I was fairly well informed in the theory, having studied the works of Tyler Smith and Edward Rigby. One of the questions at the *vivâ-voce* was, What is a natural labour? I gave my definition *à la* Rigby: "When the long axis of the child's body corresponds with that of the uterus the child (provided the passages are normal) can be born in that position. It matters little, as far as the labour is concerned, which extremity of the child presents so long as this is the case. ..... The natural presentations consist of two classes—those where the cephalic and those where the pelvic end of the child presents."[1] I was taken sharply to task by the two examiners and asked if I did not know the greater fatality in breech than in cephalic presentations. I stated that I did, giving the mortality in the two classes. These old worthies have long since passed to their rest, but they were highly indignant at me for stating that a breech presentation was a natural one so far as the labour was concerned, and they had evidently never heard of Rigby's views.

I am, Sirs, yours faithfully,

Feb. 14th, 1896. M.D.

GONORRHŒA WITH PYREXIA AND CARDIAC SYMPTOMS.

To the Editors of THE LANCET.

SIRS,—Will any of your readers tell me if a case similar to the following has ever come under their care or observation? A sailor boy, complaining of little or nothing but a cold and having a temperature in the morning of 101·2° F.—which rose in the evening to 103·6°—on examining chest was found to have a distinct systolic murmur at the heart's apex and in the pulmonary area. Nothing abnormal was found in the lungs or elsewhere. Some five days afterwards, the temperature still remaining high, the murmur had completely gone; and some three days after this, the temperature falling to normal, a gonorrhœal discharge appeared for the first time. Can the gonorrhœal poison, which was apparently latent in the system, have given rise to the high temperature and the cardiac mischief which was so very evident, although so amazingly transient? The boy had always enjoyed most excellent health never having suffered from rheumatism or venereal disease, &c.—I am, Sirs, yours very truly,

March 9th, 1896. PRACTITIONER.

"THE MEDICAL LICENSING BODIES AND MEDICAL AID ASSOCIATIONS."

To the Editors of THE LANCET.

SIRS,—Under the above heading on page 640 of your issue of March 7th the resolution of the College referred to, *plus* the fact that at the Ethical Section during the meeting of the British Medical Association last August a gentleman (who was pointed out to me as the President of the Royal College of Physicians, Dublin, by the gentlemen sitting on my right and left) did most undoubtedly state that those seeking the diploma of the Royal College of Physicians of Ireland were required to declare that they "would not accept office in any medical aid association," &c., were the causes of my resignation. It is quite possible the resolution referred to may be only a verbal declaration, but as to the facts I name I am quite certain, and no doubt others present at the Ethical Section will recall this circumstance to mind now that attention is directed to it. Anyhow, if the resolutions of the Dublin College of Physicians and the English College of Surgeons are useless as they stand the sooner they become by-laws which can be made operative the better, for most men will not give up an appointment such as I held in order to let "Tom, Dick, or Harry" step into their places in a few hours' time. I am, Sirs, yours truly,

March 9th, 1896. L.K.Q.C.P.I., &c.

[1] Vide Rigby, p. 124.

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MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Manchester Children's Hospital: a New Seaside Home.

THE annual meeting of the subscribers to this very important charity was held in the town hall on the 29th ult. It has an out-patient department in Gartside-street and a hospital for in-patients at Pendlebury. At the former 11,547 new patients were registered last year, as against 10,007 in 1894, an increase of 1540, illustrating the rapid extension of the work of almost all our medical charities; 1051 cases were transfered to the hospital, as against 955 in 1894, and 844, as compared with 807 in 1894, were made home patients. The report drew attention to the want of a proper milk-supply, which was deplored by the medical staff; and in the medical report reference is made to the abuses connected with infant life insurance. "It was satisfactory to notice that the Licensed Victuallers' Association had taken up the question of paying part of the insurance money in drink, and the board trusted that this crying abuse would before long be done away with." There is the usual expression of regret on part of the board, "that they must again report a deficiency of the income to meet the expenditure." The deficiency on the year is a little over £624, which, with that of last year, leaves an adverse balance of £1200. The report says: "There was an unfortunate impression abroad that the Manchester Children's Hospital was a wealthy institution. The tradition of the large amount raised by the bazaar some twenty-five years ago was still remembered, while it was forgotten that the sum then raised was spent in completing the buildings at Pendlebury, which almost doubled the annual expenditure, while the subscription list was in no way proportionately increased." The President, Sir William Agnew, has generously placed a considerable sum of money at the disposal of the board for providing a home at the seaside, and three acres of land near St. Annes have been bought for the purpose. After congratulating the subscribers on Sir William Agnew's gift the chairman said: "For years they had been told by Dr. Ashby that many children were being sent back to homes which were unhealthy, and where they would be ill-attended, instead of being further aided towards health by being sent to a convalescent home." He added the consolatory statement that there were certain legacies which would realise £9000 or £10,000, with which they proposed to endow the home, and it was expected that the increased expenditure would thus be practically covered. It is to be hoped that a cheerful response will be made to the anticipation of the chairman, who said he was sure that the Manchester public would make good any deficiency that might arise through the establishment of the new hospital.

Salford Sewerage Scheme.

This scheme again came under consideration at the meeting of the council on Wednesday last. The River Irwell Conservancy Committee recommended the Council to borrow £50,000 instead of £40,000, which was the sum previously decided on, for the purpose of carrying out the scheme, and a resolution to this effect was moved by the Deputy-Chairman. Dr. Quine moved an amendment referring the matter back to the committee which was seconded by the chairman of the committee, who was thus opposed to the action of his own committee, chiefly because he considered the cost would be more than £100,000 instead of half that sum, and he asked the council not to increase the ratepayers' burdens. The amendment was adopted, and Salford has still to wait—how long remains to be seen—for the proper treatment of its sewage. All this looks like playing with a very serious matter.

Owens College.

At the half-yearly meeting of the court of governors on Wednesday last, thirty-eight former students, the largest number hitherto appointed on a single occasion, were made associates of the college. Three were medical graduates, but the rest had taken degrees in arts or science, and of these nine were ladies, one of whom had taken the B.Sc., and the others the B.A. Vict. In the arts, science, and law department there are 586 students, of whom 108 are women; in the medical school there are 345, and in addition 329 students attend evening classes.

March 10th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Sub-Warden of the University of Durham.

THE Rev. Dr. A. Plummer, Master of University College, Durham, has been appointed Sub-Warden of the University by the Dean of Durham.

Appointment of Extern Examiners in the Faculty of Medicine of the University of Durham.

The following appointments have just been made: medicine, Dr. D. B. Lees, St. Mary's Hospital, London; surgery, Mr. T. P. Pick, St. George's Hospital, London; public health, Dr. T. E. Hill, medical officer of health for the county of Durham; physiology, Mr. D'Arcy Power, St. Bartholomew's Hospital, London; anatomy, Professor Thomson, Oxford; physics, Mr. V. A. Mundella, B.A. Cantab. The examinations for degrees in medicine, surgery, and hygiene will be commenced in the Medical College, Newcastle-upon-Tyne, on Monday, April 6th, and will be spread over a period of three weeks. On Saturday, April 18th, degrees will be conferred, and for this purpose a convocation of the University of Durham will be held in the city of Newcastle for the first time.

British Association for Child Study.

On Thursday last a meeting interested in this society was held in the College of Science at Newcastle, presided over by Principal Gurney, when it was resolved to form a branch of this society in Newcastle. Mr. Burdon explained the objects of the Society, and Professor T. Oliver was elected president. There is much room for improvement in the condition of some of the child-life in the neighbourhood, and if this society, by studying child life, should be able to bring about a better state of things it will be doing a useful work.

Large Decrease of Drunkenness in Newcastle.

From the report of the chief constable just issued, it appears that during the year 1895 there was a decrease of no less than 1846 in the number of cases of drunken persons brought before the bench by the police. In 1894 there was an increase of 703 cases over those in the year 1893. It is very difficult to account for these striking variations. The condition of trade does not satisfactorily account for the fluctuations. At the beginning of last year the mayor said Newcastle was, for its size, the most drunken city in England. This was indignantly denied, and the number of charges of drunkenness was accounted for by police activity. Can it be possible that the people are just about as drunken in Newcastle as usual and that the police have been somewhat less active during 1895?

Newcastle-upon-Tyne, March 10th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Proposed Wholesale Destruction of Houses in the Outer Hebrides.

THE Public Health Committee of the county of Inverness has had under consideration a communication from the Harris District Committee in which it was proposed to destroy by fire several hundreds of the "black houses" in the district because of their insanitary state. Dr. Ogilvie Grant, medical officer for the county, reported on the houses referred to. They were divided into three compartments with one outer door. The first compartment was used for housing the cattle, and the manure in it was allowed to accumulate for twelve months at a time. The adjoining compartment or kitchen was usually separated from the cattle compartment by a rudely constructed wooden partition, while in some there was no partition at all. The third or innermost compartment is the bedroom, containing two, four, or five beds, and in this room all the members of the family sleep irrespectively of age or sex. The walls of the houses have an outer and an inner stone facing, the space between being filled with earth. The water runs from the roof into the earthy centre and keeps it damp. The fire is in the centre of the room and there is no chimney, the smoke getting exit through door, window, and crevices. As a result of these insanitary conditions relapsing fever, typhus fever, typhoid fever, and phthisis are prevalent and the

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infant mortality is high. The average age at which persons died in Harris during the past four years was thirty-nine years, while on a mainland parish of the county the average was fifty-nine years. Dr. Grant properly says that these houses are unfit for human habitation, and that the legal remedy under the Public Health Act is to close them up and turn the inmates out on the moors. For obvious reasons this course could not be followed, and he suggests that the people should be assisted by the Government in their laudable endeavour to improve their dwellings. The people in these houses are, it appears, most industrious and weave Harris tweeds, and all that is required is a grant of £4 to £8 per house. The number of houses which ought to be destroyed is between 200 and 300, and the district committee cannot undertake the expenses because of the burden of taxation for other purposes. A motion was carried to the effect that a deputation should wait upon the Secretary for Scotland to urge the necessity of doing something in the matter. The deputation includes Lochiel, The Mackintosh of Mackintosh, Mr. Baillie of Dochfour, M.P., and the county clerk. The main difficulty of the situation would be encountered after the wholesale disinfection by fire had been accomplished, for new houses would be needed by the dislodged inhabitants, and the expenditure of public funds to secure these would probably lead to protest, hence the determination to try what help can be obtained from Government.

The Quarryholes Hospital.

Leith has at last made terms with Edinburgh, and the Dean of Guild Court of Leith has sanctioned the erection of the hospital on condition that it shall be temporary and shall be used only for cholera patients. They also make terms about an incinerator and the height of a chimney.

Glasgow Royal Infirmary.

Dr. A. G. Auld has resigned his position as Assistant Physician to the Infirmary. Applications for the vacancy are to be made not later than March 26th.

The Fishery Board for Scotland.

The Secretary for Scotland has appointed Dr. T. Wemyss Fulton to be Scientific Superintendent under the Fishery Board for Scotland in terms of the Sea Fisheries Regulation (Scotland) Act, 1895.

Infectious Diseases Hospital for Lanarkshire.

The committees representing the Lower and Middle Wards of the county have agreed to the erection of a Joint Hospital for Infectious Diseases at Lightburn. The hospital is to contain sixty beds and there is to be a disinfecting station. The total estimated cost is £30,000.

Andersonian Naturalists' Society, Glasgow.

Mr. Malcolm Laurie, B.A., D.Sc., Professor of Zoology in St. Mungo's College, has been elected President of the Society for the Session 1896–97.

Lunacy Board for Scotland.

The applicants for the post of Deputy-Commissioner in Lunacy for Scotland, vacant by the death of Dr. Robert Lawson, include Dr. Hamilton Clelland Marr, deputy medical superintendent of the Barony Parochial Asylum, Glasgow; Dr. James Middlemas, Craigie House, Morningside Asylum, Edinburgh; Dr. John Batty Tuke, jun., Dr. Cameron, Dr. Macpherson, Dr. Rutherford, and Dr. Hotchkis. A salary of £600 is attached to the appointment.

Presentation to a Medical Man.

Dr. Kennedy, who during the past session has instructed in ambulance work the employés of the North British Railway engaged at Queen-street Station, has been presented with a handsome standard lamp in recognition of his services. The ambulance corps at this station was organised six years ago, and since its establishment has rendered valuable assistance in more than ninety cases.

March 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Irish Medical Men and the Army Examinations.

Now that the result of the election of a direct representative for Ireland on the General Medical Council has been discussed, and comment made on the extraordinary apathy of the provincial voters in neglecting to mark or return not less than one-quarter of the total number of stamped voting-papers supplied to them, interest has been revived in the army medical examinations and in the remarkable falling off in the number of candidates from Ireland. The two deputations which waited upon Lord Lansdowne from the Provost and Senior Fellows of the University of Dublin on the one hand, and from the President and Council of the Royal College of Surgeons in Ireland on the other, were well calculated to carry weight, both on account of the personality of the representatives and on account of the arguments which they had the honour of laying before the Secretary of State for War. The members of the first deputation consisted of Professor Cunningham, M.D. Edin., F.R.C.S. Irel., Professor of Anatomy at Trinity College, Dublin, and Examiner in Anatomy at the Universities of Dublin, London, Edinburgh, Oxford, &c., and Dr. C. B. Ball, the recently elected Regius Professor of Surgery at Dublin University. The second deputation included the President of the Royal College of Surgeons in Ireland, Sir W. Thornley Stoker; Mr. W. Thomson, the recently elected member of the General Medical Council; with Mr. W. Stoker and Mr. Wheeler, members of Council. The representatives of Dublin University were very careful, while stating their objections to the constitution of the present Board of Examiners for the entrance examination, to express their own conviction and the universal testimony of candidates from Dublin as to the absolute impartiality of the Board. They, however, respectfully suggested that instead of the present four, twelve examiners should be appointed, of whom six would be required to examine at each alternate examination, and that the examiners should be distributed as follows: London, four; Ireland, four; and Scotland, four. The deputation from the Irish College of Surgeons made a similar suggestion as to the distribution of examinerships, and referred to a protest which was made in 1893 by the then President and Council of the Irish College against the decision that examiners at the Army Medical Service examinations should be selected exclusively from the past or present examiners of the Royal Colleges of Physicians and Surgeons of England. They observed also that at the time when this remonstrance was made nearly one-half of the total number of medical officers in the army, 421 out of 891, held Irish diplomas. Other grievances of a less distinctly Irish character were mentioned by both deputations, after which they thanked Lord Lansdowne for the assurance that he had given that the various points brought forward would receive his most careful consideration.

The National Hospital for Consumption for Ireland.

A number of invitations have been sent to medical men and others to be present at the ceremony at Newcastle, county Wicklow, on March 19th, when the new hospital will be formally opened by the Marchioness of Zetland. The guests will be conveyed from Dublin by a special train to Newcastle, and thence by car to the grounds of the new institution.

Students' Conversazione at Queen's College, Belfast.

The annual conversazione organised by the students of Queen's College, Belfast, took place on March 6th, and it was without doubt one of the most brilliant and successful ever held. There was an immense attendance, including the Lady Mayoress (the Lord Mayor was obliged to be in London), the President, professors, the colonel and officers of the North Staffordshire Regiment, and representatives of all the professions in Belfast. The great examination room was transformed into a concert hall, where an excellent programme of music was given by a number of ladies and gentlemen and by a military band. In the council room Dr. W. A. Osborne demonstrated a number of physiological experiments; in the biological laboratory microscopical exhibits (kindly lent by Professor Symington, Dr. Lorrain Smith, and Dr. Drummond) were shown; while in the chemistry lecture hall Dr. Cecil Shaw had a crowded audience to see his illustrations of the new photography; and in the natural philosophy class-room experiments with sensitive water-jets were shown by Mr. W. B. Morton, M.A., and Mr. John Wylie, B.A. In the great hall a special feature of the evening was the very able performance by the students of a dramatic sketch entitled *The Bitter Bit*, written specially for the occasion by Dr. W. A. Osborne (assistant to the Professor of Physiology). The piece consisted of three scenes, portraying phases of a medical student's life, and it was an unqualified success.

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Portrush Sanitary Authority.

A letter has been received by the Portrush Town Commissioners from the Irish Local Government Board stating that the town will be separated from Coleraine rural sanitary district and will be constituted an urban sanitary district. This will be very much to the advantage of Portrush, which is the most fashionable seaside resort in Ulster and a favourite golfing district.

Fees to Medical Men in Crown Cases.

Some time ago Mr. Olpherts was asked by a constable, by the direction of the resident magistrate, to attend the petty sessions court in Downpatrick. He did so, remaining to the end of the case, but was not called to give evidence. On forwarding his account to the district inspector of police that functionary replied that he was unable to send the necessary certificate to the Crown solicitor for payment of the fee. Mr. Olpherts then communicated with the Irish Medical Association, who applied on his behalf to the Chief Secretary for his fee, with the result that the medical man has received intimation that the fee would be paid by the authorities. This is an important decision, as it establishes the principle that medical men are entitled to their fees in Crown cases for attending court when they may not have, as in this case, received a summons, but merely an intimation from a police constable by the direction of a magistrate.

The Magherafelt Workhouse.

The Local Government Board have sent a communication to the Magherafelt guardians trusting that they will remedy the defects in the sanitary arrangements in the workhouse. In reply the guardians say that night-chairs have been provided instead of the night-buckets in the infirmary and infirm wards, and that the present arrangements for bathing purposes are excellent, as there are already three fixed baths.

The Belfast Lunatic Asylum.

A prolonged discussion took place at the last monthly meeting, held on March 9th, of the governors of the Belfast Asylum in reference to the present inadequate accommodation, especially for female patients. Ultimately, a motion was carried for the appointment of a committee to consider the entire question.

The Battle of the Clubs at Cork.

The storm created by the statement of the *Cork Constitution* that the Medical Association had taken steps to prevent nurses from attending patients under the care of the new club medical officers has subsided as quickly as it was raised. The calm and dignified action of the medical men in treating the libellous charge as beneath their notice has produced the best effect, and it is quite evident that the fighting spirit of the clubs of twelve months ago has become seriously attenuated. The fact is a large number of club members have come to recognise that they have no reasonable complaint against the local faculty and that they have been talked into supporting the unjust claims of men with large incomes, who, if they could, would pay the artisan as illiberally as they are prepared to pay the medical practitioner. Some writers to the *Constitution* broadly hinted that the funds of the hospitals would suffer because of the fight between the medical men and the clubs. In other words, it was suggested that the clubs and their sympathisers would close their purse-strings for the purpose of punishing the medical men by preventing them from giving their unpaid services to a certain proportion of the poor who now frequent the hospitals. Some of the kind-hearted gentlemen living in opulence are deprived of the luxury of having medical attendance at the rates paid by labouring men, therefore to "punish" the medical men many of the poor of the city who cannot pay for medical attendance, nursing, or medicines are to be driven from the hospital doors. However, nearly every day brings some pleasing indications that the organised opposition of the clubs is gradually disintegrating. For instance, an entirely new club has been formed and application made to be allowed to elect a medical officer in accordance with the rules of the profession. Notice, too, has been given at a meeting of one of the oldest societies that a motion will be made next month that the present club medical officer be dismissed with a view, presumably, to the reinstatement of their former one. Discontent with the present state of affairs prevails in more than one direction, and time is steadily winning for the Cork Medical Association.

March 10th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Next Year's International Congress and the Languages to be employed thereat.

AS the readers of THE LANCET already know, it has been decided that the only languages in which communications can be read at Moscow next year will be French, Russian, and German. Actuated doubtless by a spirit of *chauvinisme* from which medical men should be free, the exclusion of English has, I am sorry to say, been approved by several medical journals published in this city. One of them is, however, fain to admit the possibility of a concession being at the last moment made in favour of English, and the *Semaine Medicale* of the 4th inst. takes a very common-sense view of this preposterous attempt to taboo a tongue in favour of which all others will in all probability ultimately disappear. *International* Congress is surely a misnomer when the most important language spoken by human beings is ousted. Do our Russian *confrères* really mean to treat British and American practitioners as a *quantité négligeable*?

Foreign Medical Men in France.

A judgment of the Conseil d'État, which is of considerable practical interest to those of our countrymen who practise medicine on French territory in virtue of a simple permit granted by Government, is reported in *Le Temps* of the 7th inst. A Dr. R—— pursued his calling under this condition—viz., through an *autorisation* granted by the French Government according to the terms of the law of the 19th Ventôse, Year XI., such permit having of course been granted before the passing of the Medical Bill of Nov. 30th, 1892, which now regulates the practice of medicine within the French Republic. The existing law forbids the practice of medicine to any practitioner unprovided with the degree of M.D. of a French Faculty. By Article 28 of this law foreign practitioners provided with a permit were allowed to practise undisturbed. On Jan. 15th, 1894, Dr. R——'s permit was, nevertheless, withdrawn by the Minister of Public Instruction for reasons not stated. Dr. R—— appealed to the Conseil d'État. The council rejected the appeal and ruled that permits granted under the law of the 19th Ventôse were revocable by the Government, should it see fit to withdraw them. The majority of British medical men established in France are, I believe, *officiers de santé*, and as such they have nothing to fear, although that diploma has since 1892 become a thing of the past. But there is probably a minority liable, like the unfortunate Dr. R——, to see his *clientèle* destroyed at one swoop by a slip of paper signed by the Minister. According to the last census there were 2922 medical men in Paris, 521 of these being foreigners. Classified according to age and nationality these 2922 practitioners are thus composed: between twenty and thirty-nine years of age, 1470, of whom 26 per cent. are foreigners; between forty and fifty-nine years of age, 1067, of whom 11 per cent. are foreigners; above sixty, 385, of whom 7 per cent. are foreigners. Foreign medical men are particularly numerous in the fifth and sixth arrondissements (Latin Quarter), where they exist in the proportion of 47 per cent. But most of these are young men who, coming to Paris for study, do not practise. The remainder of the foreign element is, as might be expected, to be found in the rich districts. The number of foreigners who actually practise is about 250.

The Creation of New Universities in France.

The Chamber of Deputies has just passed unanimously a Universities Bill drafted under the Ribot Ministry by M. Poincaré, then Minister of Public Instruction. Five years ago a similar Bill was rejected by the Senate, the reason being that the Upper House would not agree to the choice of towns in which the new universities were, according to the Lower House, to be located. In the Bill just passed—and its acceptance by the Senate is said to be a foregone conclusion—all existing Faculties will take the title and privileges of universities. The days of the cumbrous University of France created by Napoleon are then probably numbered, and the decentralising system, which is proving such a success in England, will have a trial. A few pushing provincial universities would, by their success, do more to modernise the Paris school than tons of talk in the journals,

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healthy competition being in educational, as in commercial, enterprise the best of all incentives to improvement.

Madame Pasteur.

By a decree published in the *Journal Officiel* the annual pension of 25,000 fr. voted on Aug. 2nd, 1883, by Parliament for the late regretted M. Pasteur is settled on his widow. The scientific world will rejoice at this decision.

The Sanitary Council of Rome has appointed a committee to receive subscriptions towards the monument to Pasteur to be erected on a site in Paris. Professor Baccelli, until the last few days Italian Minister of Public Instruction, has accepted the presidency of the committee, Professor Pagliari being secretary.

March 10th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

An Antitoxin for Enteric Fever.

PROFESSOR BENMER and Professor Peiper of Greifswald have produced an antitoxin for enteric fever from the sheep after the method used by Professor Behring for his diphtheria antitoxin. The experiments are not yet finished and particulars are not published, but Dr. Borger, assistant physician to the medical clinic of the University of Greifswald, has issued a preliminary notice, giving an account of the results hitherto obtained. Twelve patients were treated by the antitoxin; in the first cases from twenty to thirty grammes (from three-quarters of an ounce to an ounce) were injected, but as no effect was produced the amount used on the next occasion was from fifty-five to two hundred grammes (from two ounces to seven ounces). All the patients were in a somewhat advanced stage of the illness—namely, from the seventh to the sixteenth day. When the antitoxin was used on the tenth day and later no effect was observable. In one case the treatment was begun at a relatively early period—namely, on the eighth day—and the very large dose of two hundred grammes (= seven ounces) was employed, but death nevertheless ensued. In another case one hundred and fifty-five grammes (= five and a half ounces) were given, but the patient had a serious relapse lasting from the twenty-eighth till the forty-second day. Only four of the remaining cases showed a satisfactory result, the fever having ceased on the eleventh, seventeenth, and eighteenth days respectively. In some instances a second injection was performed. These results are not very encouraging; no injurious effects were perceptible, but the antitoxin must be greatly improved to become really useful. The principal requirements, however, are that the clinical and bacteriological diagnosis of enteric fever should be made at an earlier period than is practicable just now, and that patients should come into the hospitals before their illness is far advanced.

Medical and Surgical Fees in Prussia.

The question of fees is as a rule left to be adjusted between the patient and the medical practitioner, and if an arrangement has been made before the beginning of the attendance the amount agreed upon must be paid even though it be exceedingly high. But if nothing has been arranged beforehand, and if the patient then declines to recompense his medical attendant, he is only bound to pay the sum officially settled by the so-called "Medicinal-Taxe." The Medicinal-Taxe now existing dates from 1815 and is not at all adapted to the present state of medical practice. Of course, none of the operations introduced since the early part of this century are mentioned in it, and for this reason the law courts are often in a dilemma when an action for fees comes before them. Various German States—such as Saxony, Bavaria, &c. — have recently modified their Medicinal-Taxe, and a new one will now be drawn up for Prussia in accordance with the wishes of the official representatives of the profession. A Bill for this purpose has already been brought before the Upper House of the Prussian Parliament and has been accepted there without discussion, and the Lower House will undoubtedly follow this example. The new scale of fees has 163 clauses, each clause assigning a minimum and a maximum fee, according to the financial position of the patient and the other circumstances of the case. For instance, from two marks to twenty marks (2*s.* to £1) may be charged for a first visit to the patient's residence, and from one mark to ten marks for advice at the medical man's residence. Visits between 9 P.M. and 7 A.M. are rated at three times these amounts. For distant visits the loss of time entails an extra fee, and the practitioner's travelling expenses must be paid. The list of surgical operations is very lengthy. The fees vary from two marks for dressing a small wound to five hundred marks (£25) for laparotomy, lithotomy, hysterectomy, &c. The new scale is undoubtedly better than the old-fashioned one of 1815, but it remains a question whether such an enactment is necessary. Many practitioners are of opinion that the official regulation of medical fees is no more needed in Germany than in the countries where it does not exist. Actions for the recovery of medical fees are relatively rare in Germany, and when they are brought an expert would not require an official scale to guide him in determining whether the amount claimed is reasonable or otherwise.

ROME.

(FROM OUR OWN CORRESPONDENT.)

Cholera Shadows.

FROM Alexandria the Italian Consul has apprised the sanitary office here that cholera has appeared in that city, that it shows a tendency to increase, and that the later cases are at once the more typical and the more aggravated. Stringent regulations are in consequence imposed at all the seaports throughout the kingdom to prevent the malady effecting a foothold, and special precautions are being taken to keep the troopships plying between Italy and the Red Sea exempt from contagion. On board these vessels the most rigorous inspections are being made, while the Minister of the Interior has prohibited even the postal steamers which happen to be engaged in the transport service from touching at Alexandria. Till further notice these latter will call only at Port Said.

An Interesting Ceremony.

The death of Dr. Luigi Galassi, Professor of Pathology in our university, has already been recorded in THE LANCET, and in commemoration of him a special meeting was held on March 1st by the Accademia Medica, of which he was for several years President. There was a large attendance not only of the medical faculty, but also of the students, as well as of the lay public. The proceedings were opened by Professor Toscani, Vice-President of the Accademia, and he was effectively followed by Dr. Rossoni (Professor of Clinical Medicine), Dr. Parisotti (Ophthalmic Professor), and Dr. Campana (who holds the chair of Dermatology and Syphilitic Disease). The commemoration will not, however, be confined to academic *éloges* however eloquent; but some more permanent memorial is in contemplation to a consultant and teacher who was for so many years an ornament to the Roman school and a mainstay of its prosperity.

The Disaster in Abyssinia.

"Varus, Varus, give me back my legions"—the words of anguish wrung from the Emperor Augustus on the annihilation of the Roman army in the Teutoburg Forest—must have recurred to the Italian people on learning Baratieri's total defeat at Abba Carima on Sunday last. The meagre details doled out by the Roman War Office are so far consistent with information from other sources that Italy may now resign herself to the fact that she has sustained the severest reverse yet inflicted by an African on a European force. The moral effect of the victory will stimulate the savage or semi-savage races of the Dark Continent to fanatical resentment against European settlers and enhance a hundredfold the difficulties already grave enough of extending or even holding the several "spheres of influence." These effects, in Ethiopia at least, will take some time to obliterate, if, indeed, Italy is the power to undertake it. The rainy season is imminent in the Eritrea, and Baldissera, Baratieri's successor, even if he succeeds in restoring discipline and *morale* to the white troops and loyalty to the native ones, will be unable to take the field before the late autumn. Altogether the situation is as sombre as need be for Italy, which country finds the "Dark" Continent to be darker in a moral that even in a physical sense, and whose "way out of it" is a puzzle which has cost her much, and is likely to cost her more, to solve.

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An Army Surgeon on the Situation.

Among the publications called forth by the Italian occupation and its recent reverses there are two which I can safely recommend to your readers, "La Guerra in Africa" by Signor Vico Mantegazza, a kinsman of the distinguished Professor of Anthropology in the Istituto di Studi Superiori in Florence, and "L'Esercito Abissino: Usi e Costumi" by Dr. Luigi Sambon. The former gives a succinct account of Italy's colonial policy on the Red Sea and the various steps by which she has pushed her way inland. The latter transports the reader to the military side of the subject and by pen and pencil puts him in possession of the difficulties hitherto overcome or yet awaiting their solution. Dr. Sambon has already laid the profession under considerable obligations by his bright and instructive comments on the hygiene of the Italian army in quarters or in camp. His present publication is made yet more attractive by spirited illustrations engraved from the original drawings of Dalbono and Terzi.

King Menelik and the Red Cross.

One fact may be culled from these publications and that is that the King of Shoa is very far from being a despicable antagonist. All through the later incidents of the campaign he has shown a magnanimity which more pretentious potentates would do well to imitate. He has treated his white prisoners humanely and well and afforded every facility for the effective care and cure of the wounded. He has applied, it is announced, to the headquarters of the Red Cross in Switzerland for the admission of Abyssinia into that international organisation; and, indeed, his whole conduct before and after his latest victory has been quite in keeping with that Christianity—primitive no doubt, but genuine—which is his hereditary religion. He is still, I understand, open to a pacific *modus vivendi* with Italy, whose Red Sea colony met with no opposition on his part. Indeed, he was favourable to the so-called "Colonia Eritrea" as long as it kept within its originally prescribed limits. Not till the fatal forward policy of Crispi brought Italian troops to Cassala and the Tigré did he head the movement he has hitherto conducted so skilfully of "Abyssinia for the Abyssinians."

The Health of the Pope.

Not a little alarm was felt on Thursday last when it became known that, doubtless due to the exertions of the previous days, His Holiness Leo XIII. had had a fainting fit of nearly half an hour's duration and that it was well on into the afternoon before his body physician, Dr. Lapponi, who had been in attendance since morning, was able to leave the Vatican. The improvement, however, was very marked in the evening, and to-day, I am assured, His Holiness is in his usual health. But with the fatigues incident to Easter-tide now approaching the utmost vigilance will be required to obviate a recurrence of these attacks of syncope which, in so typical a sufferer from senile anæmia, are fraught with imminent danger.

March 7th.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council, held on the 12th inst., the President, Mr. Christopher Heath, being in the chair, the consideration of the question of the direct representation of the Members on the Council was resumed. After much discussion it was resolved: "That as the members of this Council represent the body corporate of this Royal College, and consequently its Members as well as its Fellows, it is the opinion of this Council that no further representation of the Members is desirable."

A letter was read of the 13th ult. from Dr. Liveing reporting that the Royal College of Physicians of London, at a special meeting held on that day, had re-elected Dr. G. Sims Woodhead Director of the Laboratories for another year, and had adopted, subject to the approval of this College, the following resolutions in reference to the revised regulations for the five years' curriculum, viz.:—

"1. That to Paragraph 6 at the head of page 6 the words 'after passing the second examination' be added, so that it may read: '6. Of having attended at a recognised hospital with a medical school after passing the second examination.'"

"2. That 'Pharmacology' as a separate subject be omitted from the Third or Final Examination, and the synopsis headed 'Pharmacology' from the regulations."

"3. That the alterations necessary to bring the regulations into accord with the above resolutions be referred to the Committee of Management, and that, if the Royal College of Surgeons agree on their part, the regulations be issued."

The motion that the proposed alterations be made was agreed to, and it was referred to the Committee of Management to revise the regulations in accordance therewith and to issue them.

Medical News.

THE *Macclesfield Courier and Herald* announces the appointment of Mr. J. L. Rushton, M.D., and Mr. Charles Averill, M.D., as representatives of the honorary medical staff on the governing body of the Macclesfield General Infirmary.

THE UNIVERSAL COOKERY AND FOOD EXHIBITION.—The annual Cookery and Food Exhibition will be held at the Imperial Institute from April 27th to May 2nd. The object of the exhibition is to promote and extend a better knowledge of the various substances used as food, and the best and most economical ways of cooking the same. Prizes are offered for competition.

FOOTBALL CASUALTIES.—During a match at Shepherd's Bush on the 7th inst. between the Stanley and St. Mary's College teams a player fractured his clavicle and was removed to the Cottage Hospital at Brook-green. At Liskeard on the same day in a match, the Liskeard Club against the Mevagissey team, one of the Liskeard half-backs sustained a compound fracture of his leg.—While playing in a match at Kettering on the 9th inst., between the Luton and Kettering teams the Kettering centre half-back fractured his leg and sustained other serious injuries.

LITERARY INTELLIGENCE.—Under the title "Mittheilungen aus den Grenzgebieten der Medizin und Chirurgie" ("Reports from the Borderlands of Medicine and Surgery") there has appeared the first number of a periodical (Jena: G. Fischer; subscription 25*s.* per vol.) edited by Dr. J. Mikulicz of Breslau and Dr. B. Naunyn of Strassburg. It is planned on the same lines as the now well-established pathological "Beiträge" edited by Professor Ziegler—that is to say, it is to consist of clinical monographs from representative schools in Germany. This first number opens with an article on Pneumotomy by Professor Quincke of Kiel, who contributes many fresh cases to those already published, of which also summaries are given. They are grouped under the heads of: 1. Acute Cases: (*a*) Simple Abscesses; and (*b*) Acute Gangrene and Gangrenous Abscesses 2. Chronic Cases: (*a*) Simple Abscesses and Bronchiectases; and (*b*) Chronic Putrid Cases. 3. Putrid Processes from Foreign Bodies. Out of a collective number of 54 such cases in which pneumotomy was resorted to there were 20 deaths, 20 recoveries, 3 cases without result, and 11 incomplete results. Of these 17 cases were in Professor Quincke's clinic (5 deaths, 5 recoveries, 1 no result, and 6 incomplete results). Naturally the cured cases are to be found in larger proportion amongst the acute than amongst the chronic series (65 per cent. to 20 per cent.). Professor Bruns of Tübingen writes on the present position of the Radical Treatment of Hypertrophy of the Prostate, with especial reference to castration; and Professor Naunyn discusses at length the diagnosis and treatment of ileus, in which the importance of early surgical intervention is prominently shown. Dr. Trantenroth, assistant physician to Dr. Schuchardt's surgical clinic at Stettin, records a case in which severe hæmaturia to a dangerous degree was the earliest symptom of a commencing renal tuberculosis. The appearance of a journal such as this testifies to the part now played by surgery in the treatment of visceral diseases, and the list of names of those under whose auspices it is issued comprises many of the leading physicians and surgeons in Germany.—The three lectures delivered in February at the Royal College of Surgeons of England by Professor Leonard Hill on the Cerebral Circulation and Cerebral Pressure will shortly appear in book form, largely illustrated. Messrs. J. and A. Churchill are to be the publishers.

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MIDDLESEX HOSPITAL.—At a largely attended meeting of the Quarterly Court of Governors held on Feb. 27th at the Middlesex Hospital there were present, amongst others, Sir Lionel M. Swinnerton Pilkington, Bart. (in the chair), Sir Ralph Thompson, K.C.B., Mr. Francis Hoare (treasurer) and Mr. G. J. Majoribanks (treasurer), Colonel Smith, the Hon. G. W. Spencer Lyttelton, C.B., Colonel the Hon. C. G. Gathorne Hardy, Lieutenant-Colonel T. Lambert Mears, Rev. Canon Acheson, Mr. S. B. Bancroft, Mr. Griffith Jarrett, Dr. Cayley, Dr. Pringle, and Dr. Wynter. The annual report for the year 1895 was unanimously adopted. Sir Ralph Thompson, in his speech, drew attention to the present financial state of the hospital, which he characterised as being very satisfactory, and announced that their Royal Highnesses the Duke and Duchess of York would attend a *fête* on July 1st, to be given for the benefit of the funds of the new convalescent home to mark the 150th anniversary of the institution of the hospital, which dates from the year 1745, and asked all governors present to induce their friends to attend on that day. Mr. Griffith Jarrett gave a brief *résumé* of the various alterations and improvements effected in the hospital during the last twenty years. The court then proceeded to re-elect the treasurers, auditors, bankers, and retiring members of the weekly board, various formal business was transacted, and a vote of thanks to the chairman adjourned the court.

DIPHTHERIA IN LONDON.—The data to hand respecting the behaviour of diphtheria in London in the four-weekly period ended Feb. 22nd, show a slight increase in the amount of the disease as compared with the four weeks next preceding. Thus in the four weeks ended on Jan. 25th there were 988 notified cases of diphtheria in the county of London every one of the 43 sanitary areas being invaded. Fifty cases and upwards were notified in each of 6 districts, with an aggregate of 358, and as regards London as a whole, the weekly average number of notifications was 247. The deaths registered in the period were 224, or 56 weekly, and the per case mortality was 22·7 per cent. In the four weeks ended on Feb. 22nd the notified cases increased to 1054, occurring in 42 of the 43 sanitary areas, and averaging 263 notifications weekly. Only 4 districts had 50 cases and upwards, with a total in the 4 of 307 notifications. The aggregate of registered deaths decreased by 7 to 217, a weekly average of 54; and the per case mortality was at the lowered rate of 20·6 per cent. Thus, with a small rise in amount of diphtheria, we find a decline in the mortality rate. In the two completed weeks ended March 7th the deaths have been 48 and 46 respectively, and on Saturday last 700 patients remained in hospital suffering from the disease, as compared with 706 on the corresponding Saturday in February.

THE DIFFUSION OF SMALL-POX.—The notified cases of small-pox in London in the four-weekly period ended Feb. 22nd were 46 in number, and occurred in seventeen of the forty-three sanitary areas of the metropolis. This yields a weekly average of 11, as compared with a weekly average of 10 in the like period ended Jan. 25th. Small-pox, therefore, in the first eight weeks of this present year has maintained a quiescent state. The slight increase in the later period as regards number of cases notified is balanced by the fact that the area covered by the disease was smaller, nineteen districts being involved in the January period, as against seventeen in the February. During the later period, the four weeks ended Feb. 22nd, the four districts of Greenwich, Clerkenwell, Lambeth and Rotherhithe accounted for 27 out of the 46 notifications. In the two weeks ended March 7th there has been a wide difference in the prevalence of small-pox in London, as judged by the admissions to hospital, last week showing 13 such admissions against only 1 in the week immediately preceding. There were 2 deaths registered from the disease in London last week, the first for seven weeks. These fatal cases belonged to Lambeth and Greenwich respectively, the one being in an unvaccinated infant and the other in an infant concerning whose state as to vaccination no information is forthcoming. On Saturday last there remained on the hospital ships at Long Reach 52 patients, as compared with 60, 58, and 51 on the three preceding Saturdays. At Gloucester the seriousness of the small-pox prevalence through which that city is passing seems to continue, the authorities of the town and surrounding country having had to deal with upwards of 100 cases of the disease in the past month. No little alarm appears to have been created in the minds of residents of neighbouring places at the condition of the public health in this matter, and Gloucester is, to some extent at least, avoided by the country folk. In the Midland counties, a few cases have been recorded. A further case has arisen at Troon, near Camborne, in Cornwall, the patient being a brother of a former sufferer who was attacked on his return from South Africa. The difficulties of isolating the patient in his home circumstances have led to steps being taken to that end by the local authority. One additional case of small-pox occurred in a block of the Cardiff Workhouse, necessitating the placing of the infected block in quarantine for fifteen days. Two suspected cases have turned out not to be small-pox. Another case has been reported at Newport and the leave of absence of inmates of the workhouse has in consequence been curtailed for a fortnight. There has been another case at Bridgend during the week, and 2 additional cases have occurred at the common lodging-house at Blackwood, in Monmouthshire, where 15 tramps have been in quarantine for some five weeks. The City of Dublin is not yet quite rid of small-pox, since 5 cases arose in the week ended Feb. 29th, leaving at the close of the week 7 patients in hospital, as against 4 on the preceding Saturday.

ROYAL FREE HOSPITAL.—The annual report of the Royal Free Hospital which has recently been issued gives an account of the recent additions which have been made to the hospital buildings. These include improved accommodation for the treatment of casualty cases and rooms for the resident medical officers, and also for the servants of the hospital. It is satisfactory that the new buildings are almost completely paid for, only about £2000 being still required. Legacies are a most uncertain source of income and it is always a matter for regret when a hospital has to depend to any great extent on such bequests. In the case of this hospital, unfortunately, out of a total income of £9142 nearly half is derived from this source—viz., £3921. A noteworthy feature in the management of the Royal Free Hospital is the systematic inquiry which is made into the pecuniary circumstances of the patients who apply for out-patient treatment. This has been carried out for some years by the ordinary officials of the institution and with good effect, but last year the board, acting in conjunction with the Charity Organisation Society, appointed an officer to investigate carefully the circumstances of the out-patients. The result is beneficial in several ways: those who can afford to pay for medical treatment are excluded (but it is found that these form only a small proportion of the whole), and those who require help in addition to treatment are assisted, and this is rendered much more easy by the fact that the officer is in close connexion with the Charity Organisation Society. If careful inquiries such as these were made at all hospitals the difficult problem of out-patients would be in some measure solved.

Parliamentary Intelligence.

HOUSE OF LORDS.

MONDAY, MARCH 9TH.

The Protection of Infant Life.

AT this sitting there was a short debate on the motion for the second reading of the Infant Life Protection Bill.

The Earl of Denbigh explained the history and the contents of the Bill. In 1872, in consequence of the terrible evils exposed in connexion with baby-farming, an Act was passed making it illegal for any person to take more than one infant under twelve months for hire and reward except in houses approved and liable to inspection by the local authorities. In the working of this Act it was found that there were great facilities for evasion, and that it was practically useless. In 1890 an amendment to the Bill was introduced into the House of Commons and referred to a Select Committee, but it was subsequently dropped. Then the London County Council took up the matter, and a Bill identical with the present one was introduced by Lord Onslow, but on account of the dissolution did not reach a second reading. The inspectors had found that the people engaged in the abominable traffic of baby-farming fully availed themselves of the loopholes the Act contained and that it did not reach more than 5 or 10 per cent. of the children. In the twelve months 1894–95 only thirty-eight registered houses existed in the metropolis, and they were returned as containing 121 infants under twelve months. Consequently the Act was only operative in London for these 121 children, and as soon as they were a year old it ceased to protect them. During the six years from 1889 to 1895 4127 cases were investigated; 2372 children under five years of age were found to be kept at unregistered houses, and to only 100 of these the Act applied. Of the total 323 died, 253 being under one year. No

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fewer than 135 inquests were held, and in 30 cases death was found to have been accelerated by improper feeding and surroundings. In 5 cases nurses were committed for manslaughter or wilful neglect, 3 were convicted and 2 acquitted, and 2 more were summarily convicted. During the same period there were 189 registered houses in which 836 infants had been received. The deaths numbered 107, and 6 inquests were held, but only one unsatisfactory verdict was returned. Many judges and juries had recommended the amendment of the old Act. The present Bill extended its scope so as to include all children up to five years of age. Other clauses enabled the inspectors to trace children who had been removed from registered houses and to give additional powers to the inspectors to enable them to obtain admission to houses where they had every reason to believe children were improperly kept.

The Marquis of Salisbury feared that the provisions contained in the second clause might have a very injurious and oppressive effect, and though they might save some children from ill-treatment, they might, on the other hand, prevent other children from being succoured by those who were inclined to take pity on them and prevent them from perishing from want. It was common in this country for those who had no families to adopt or to receive a child from those who had large families gratuitously or for a small charge, and under this Bill such persons would require to be registered and have their homes inspected. But people did not like being registered or having their homes inspected by a Government official by day or night, and the result would be that such people would not receive or adopt children under the circumstances, and many beneficent transactions would thus be prevented. He merely entered this caveat lest it should be understood that the Government would support all the clauses of the Bill.

After some further remarks by the Earl of Denbigh and a short speech by the Lord Chancellor, the Bill was read a second time and referred to a Select Committee.

HOUSE OF COMMONS.

THURSDAY, MARCH 5TH.

The Vaccination Commission.

Sir Matthew White Ridley, in reply to Mr. Heywood-Johnstone, said he was informed that the Royal Commission on Vaccination last sat to take evidence on Dec. 13th, 1893, but that since then they had procured and considered much valuable written evidence. He was also informed that they had held twelve meetings for the consideration of their report besides informal meetings of various members for the elucidation of certain points before their consideration by the general body of the Commissioners. The time of many of the Commissioners was largely occupied by other important duties. They had given their labour ungrudgingly to the work of the Commission and they were most earnestly desirous to bring their labours to a close.

MONDAY, MARCH 9TH.

Inveterate Misdemeanants and Inebriates.

The Lord Advocate informed Mr. Pickersgill that the question as to how far the recommendations of the Departmental Committee on Inveterate Misdemeanants and Inebriates can be given effect to is at present engaging the consideration of the Secretary for Scotland in conjunction with the Home Secretary.

Condition of Barracks in Dublin.

Mr. Brodrick, in reply to a question, said that the Richmond Barracks, Dublin, were supplied, like the population of Dublin, with Vartry water for drinking purposes, and its quality was satisfactory. For flushing drains canal water was used until recently, but this had been discontinued. No defects in the recent supply had occurred beyond the fact that one day last week the water was shut off for a few hours while a burst main was under repair.

TUESDAY, MARCH 10TH.

The Care of Pauper Lunatics.

Mr. Brookfield asked the President of the Local Government Board whether any representations had reached him in favour of extending the Exchequer contribution of 4s. per head in respect of pauper lunatics in county asylums to the maintenance of pauper lunatics returned to workhouse wards after curative treatment, and whether he would carefully consider the feasibility of making the necessary alteration in the law with this object in view.—Mr. Chaplin replied: I have received a large number of communications in favour of a grant being made by the county councils in respect of certain classes of pauper lunatics maintained in workhouses, and the subject is receiving my consideration.

IN COMMITTEE.

Food Products Adulteration.

The Select Committee of the House of Commons on the Adulteration of Food Products met on Tuesday, March 10th, for the examination of witnesses. The Committee as reconstituted consists of Mr. T. W. Russell (chairman), Captain Bagot, Mr. Bolitho, Mr. Causton, Mr. Channing, Mr. Colston, Mr. Fry, Mr. Jeffreys, Mr. Kearley, Mr. Kilbride, Mr. Lambert, Sir John Leng, Mr. P. A. McHugh, Mr. Newdigate, Mr. Nicol, Mr. Herbert Roberts, Sir Mark Stewart, Mr. Willox, and Mr. Yerburgh.

Dr. Otto Hehner, on behalf of the Society of Public Analysts, said he had had considerable experience of the working and effect of the Food Acts, and he said without hesitation that they had been a great benefit to the public. Forms of adulteration which were common when the Food Acts came into force, and were often of a most injurious nature, had since quite disappeared; but the Sale of Food and Drugs Act was capable of considerable amendment. When the Act was being considered in Parliament the word "adulteration" was struck out, and the impression had been given that the practices to which the word was formerly applied were comparatively inoffensive. In his opinion it was exceedingly desirable that the word should be re-inserted. The working of the Act had shown that the present interpretation of the term "food" was far too narrow, and that practically it excluded a number of articles that enter into food. According to this interpretation food included every article used for food or drink by man other than drugs and water. No one could pretend that pepper, or mustard, or spices, were taken for food, and it had been held by the courts that baking powder which enters into food was not an article which came within the operations of the Sale of Food and Drugs Act. It therefore came about that the vendor could sell baking powder which contained alum, whilst the baker who put it into his bread could be punished. The definition which the Society of Public Analysts suggested was that the term food should include every article of food and drink used by man other than drugs and water, and every other article intended to enter into or be used in the preparation of food or flavouring matters and condiments. The Society desired to see heavier fines imposed for offences against the Act. The profits of adulteration were so great that the fines at present imposed had no deterrent effect upon offenders; while, on the other hand, they discouraged prosecutions. The state of the law as to the use of preservatives opened the door to a great many trade malpractices, for it left the vendor free to add anything to food so long as the added matter was not positively poisonous. Other countries had legislated against the use of preservatives—France, for instance, prohibiting it in the case of food made for home consumption—and he thought there should be legislation in this country. The labelling clause in the Act afforded the very widest protection to the vendor, but it was very indefinite and unsatisfactory to the purchaser. The printing on a label might be very "distinct and legible" when attention was called to it, but it might be lost in a mass of other printing. It might be placed in an obscure corner or in an unconspicuous position, as in the case of a Swiss milk label where the word "skim" was printed in the middle of a picture. In his opinion it ought to be enacted that a notice should be in characters more prominent than any others on the label. He would also have mixtures properly described—as, for instance, "coffee mixture," "cocoa mixture," and "mustard mixture"—and he would have the relative proportions approximately stated on the label. It was true, of course, that the condition of articles changed from natural causes: lime water, for instance, might lose its lime and become water; but it was the duty of a chemist to see that he supplied the right article, just as it was the duty of a butcher to see that his meat was sound. The whole subject of drugs was, however, in a chaotic state, and although we had no standard of drugs it was most urgently wanted. The standard he thought should be applied by the law to all drugs was the standard of the British Pharmacopœia. It was possible that exception might be necessary in some cases, but these could be dealt with without serious difficulty. The definition of analyst was vague and unsatisfactory. The Act spoke of necessary knowledge, skill, and experience; but it was left to the local authority to determine whether the applicant for their appointment possessed the "necessary knowledge, skill, and experience," and the person who got together the best array of testimonials usually had the best chance of success in the competition. The appointment was not valid until the Local Government Board approved it, but the Board seldom interfered unless it received representation from the Society of Public Analysts or the Institute of Chemistry of Great Britain and Ireland. When the Act of 1875 compelling local authorities to appoint analysts was passed a great many men had to be appointed who did not possess ideal qualifications. Many of them had only medical knowledge. Broadly speaking, however, that state of things had ceased to exist. At the same time it happened from time to time that the choice of a local authority fell upon a person without special chemical knowledge. A medical officer of health, who might be highly qualified for his particular medical functions, was compelled to join to his work the functions of public analyst. He was not in a position to decline, for if he did he would lose his appointment as medical officer of health. The Institute of Chemistry comprised every chemist of consequence in this country; almost every public analyst was a member; and its membership could only be obtained after a certain course of study analogous to that of the medical and other professions. The suggestion he made was that in future no public analyst should be appointed unless he was a Fellow of the Institute of Chemistry, and in addition had passed through an examination specially to be instituted by the Institute in the analysis of food, drinks, and drugs. Another suggestion he had to put forward was that there should be a provision compelling local authorities to put the Act in operation. The Act of 1875 compelled local authorities to appoint analysts, but did not compel them to put the Act in operation, and time after time the Local Government Board in their annual report had called attention to the importance of the subject. Experience showed most conclusively that adulteration had diminished according to the activity of the authorities in carrying out the Act, and he was disposed to take the figure mentioned by the Local Government Board, and say that there should at least be one sample taken for every 1000 of the population. If the local authority neglected to have this done, then he would have the Local Government Board interfere. He then referred to the difficulties and differences which have arisen between public analysts and the authorities of Somerset House in cases of appeal to the latter, and recommended the appointment of a strong board of referees to settle all disputes arising out of the working of the Adulteration Acts.

When the Committee adjourned Dr. Hehner had not concluded his evidence. He will not be called again until Tuesday, March 17th.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ADAMS, J. D., M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health by the Yeovil District Council.

AHERNE, P. L., M.B., B.Ch. Irel., has been appointed Medical Officer to the Milford Dispensary District, co. Cork.

ASPINALL, SAM., L.R.C.P., L.R.C.S. Edin., has been appointed Surgeon to the Erdington Dispensary.

BAGSHAWE, ARTHUR G., M.B., B.C. Camb., M.R.C.S., L.R.C.P. Lond., has been appointed House Physician to the Great Northern Central Hospital.

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BARNES, GEO., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer by the Chard Town Council.

BLACKER, GEORGE FRANCIS, M.D. Lond., B.S., F.R.C.S., M.R.C.P., has been appointed Obstetric Physician to Out-patients at the Great Northern Central Hospital.

BLAKISTON, A. A., M.R.C.S., has been reappointed Medical Officer of Health by the Glastonbury Town Council.

BOND, C. S., M.B., C.M. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Second Medical Officer by the Chelsea Board of Guardians.

CLARK, W. F., L.R.C.P., L.R.C.S. Edin., D.P.H. Lond., has been re-appointed Medical Officer of Health by the Cheshunt District Council.

CLARKE, J. MICHELL, M.A., M.D. Camb., M.R.C.P. Lond., has been appointed Professor of Pathology and Morbid Anatomy to University College, Bristol.

CUNNINGHAM, G., M.A. Cantab., D.M.D. Harv. Univ., L.D.S. R.C.S. Eng., has been appointed Dental Surgeon to the London Hospital.

DAVISON, T. S., L.D.S. R.C.S. Eng., has been appointed Honorary Dental Surgeon to the Darlington Hospital and Dispensary.

DENNIS, C. A., L.D.S. R.C.S. Irel., has been appointed Honorary Dental Surgeon to the Nottingham General Dispensary.

DOLAMORE, W. H., M.R.C.S., L.R.C.P., L.D.S. R.C.S. Eng., has been appointed Dental Surgeon to the London Hospital.

DONNELLY, W. T. B., M.B., C.M. Durb., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Miller Hospital, Greenwich, vice E. H. Ezard, resigned.

DONOVAN, WM., M.D. Durh., L.R.C.P., L.R.C.S. Edin., has been appointed Surgeon to the Erdington Dispensary.

EDGEWORTH, F. H., M.B. Camb., B.A., B.Ch., B.Sc., has been appointed Lecturer in Practical Physiology and Histology to University College, Bristol.

FEATHERSTONE, W. B., M.D. Lond., M.R.C.S., D.P.H. Camb., has been appointed Surgeon to the Erdington Dispensary.

GERATY, THOS., L.R.C.P. Irel., M.R.C.S., has been reappointed Honorary Consulting Surgeon to the Nottingham General Dispensary.

GOULD, J. E., has been appointed Analyst for the Bolton County Borough.

HALE, G. E., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Eton Sanitary District of the Eton Union.

HART, G. S., M.B., B.Ch. Irel., has been reappointed Medical Officer by the Ashby-de-la-Zouch Rural District Council.

HINGSTON, R., L.R.C.P. Lond., M.R.C.S., has been appointed Consulting Surgeon to the Liskeard Cottage Hospital.

KEMMIS, H. M., L.R.C.P. Irel., M.R.C.S., has been reappointed Medical Officer by the Bridgwater Board of Guardians.

LYONS, A. DE C., M.B. Aberd., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Axbridge Rural Sanitary District.

MACKINTOSH, ANGUS, M.D., L.F.P.S.G., has been reappointed Medical Officer of Health for the Dronfield Urban District Council Derbyshire.

MASKELL, JOHN WILLIAM, M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Bootle Borough Hospital.

MONCKTON, WILLIAM, L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer by the Horfield Urban District Council.

MUMBY, B. H., M.D. Aberd., M.R.C.S., D.P.H. Camb., has been appointed Medical Superintendent to the Borough Lunatic Asylum, Portsmouth, vice W. C. Bland.

PECK, H., L.R.C.P., L.R.C.S. Edin., D.P.H. Camb., has been reappointed Medical Officer by the Ormskirk Rural District Council.

PRYCE, T. D., M.R.C.S., has been reappointed Honorary Consulting Surgeon to the Nottingham General Dispensary.

RICHMOND, JAMES, M.A., M.B. Oxon., M.R.C.S., D.P.H. Camb., has been appointed Medical Officer of Health to the Urban District Councils of Handsworth and Perry Barr.

SWAYNE, WALTER C., M.B. Lond., M.R.C.S., L.R.C.P., has been appointed Lecturer in Practical Midwifery to University College, Bristol.

TOUGH, W. R., M.D., C.M. Aberd., has been reappointed Medical Officer for the Howden Sanitary District of the Auckland Union.

WHITE, G. B., M.R.C.S., has been reappointed Honorary Consulting Surgeon to the Nottingham General Dispensary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN, Birmingham.—Resident Medical Officer, and a Resident Surgical Officer. Salaries £70 and £50 respectively, with board, washing, and attendance at the institution.

BOROUGH OF SUNDERLAND, PORT OF SUNDERLAND.—Medical Officer of Health and Public Analyst for the district of the Borough and Port. Salary £500 as Medical Officer for the Borough, £20 for the like office for the Port, and £5 as Public Analyst; in all £525 per annum. Applications to the Town Clerk, Town Hall, Sunderland.

BRADFORD INFIRMARY.—Dispensary Surgeon. Salary £100 per annum with board and residence. Also Junior House Surgeon. Salary £50 per annum, with board and residence.

BRIGHTON THROAT AND EAR HOSPITAL, Queen's-road, Brighton.—Non-resident House Surgeon. Salary at the rate of £52 per annum.

CHARING-CROSS HOSPITAL, London.—Assistant Surgeon.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W. — Clinical Assistantship, fee £5 5s. Tenable for three months.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Assistant Physician.

DERBYSHIRE ROYAL INFIRMARY, Derby.—Clinical Assistant for six months. An honorarium of £10 after six months' satisfactory service will be given, and board, residence, and washing provided.

DUNDEE ROYAL LUNATIC ASYLUM.—Assistant Medical Officer. Salary £100 a year, with board, lodging, &c.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Surgeon. Board, lodging, &c.

EVANGELICAL PROTESTANT DEACONESSES' INSTITUTION AND TRAINING HOSPITAL, Tottenham.—Resident Medical Officer. Salary £80 a year.

GREENWICH UNION INFIRMARY.—Second Assistant Medical Officer, unmarried, for one year. Salary £80 per annum, with board, lodging, washing, and attendance in the infirmary, and £3 0s. 10d. per annum in lieu of beer. Applications to the Clerk to the Guardians, Union Offices, Greenwich.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent-square, Westminster.—Anæsthetist.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon, for one year. Salary £40, with board and lodging.

KNIGHTON UNION.—Medical Officer for the District of Llanbister. Salary £80 per annum, exclusive of midwifery and extra medicinal fees. Applications to the Clerk to the Guardians, Knighton, Radnorshire.

LONDON COUNTY ASYLUM, Colney Hatch, Middlesex, N.—Junior Assistant Medical Officer, unmarried. Salary £120 per annum, rising by £5 a year to £150, with board, lodging, and washing. Applications to the Clerk of the Asylums Committee, London Asylums Committee Office, 21, Whitehall-place, London, S.W.

OLDHAM INFIRMARY.—Junior House Surgeon. Salary £50 per annum, with board and residence.

ROYAL ALBERT EDWARD INFIRMARY, Wigan.—Junior House Surgeon for twelve months. Salary £80 a year, with rations and apartments (exclusive of wines, spirits, and washing).

ROYAL COLLEGE OF PHYSICIANS, London.—Milroy Lecturer.

THE GENERAL INFIRMARY, Leeds.—Resident Surgical Officer. Salary £100 per annum, with board, residence, and washing.

UNIVERSITY, COLLEGE, BRISTOL, FACULTY OF MEDICINE.—Medical Tutor. Salary £125.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician and House Surgeon for six months. Board and lodging provided.

WEST RIDING ASYLUM, Wakefield.—Two Resident Clinical Assistants for six months. Board and furnished apartments provided.

WESTON-SUPER-MARE HOSPITAL.—House Surgeon, unmarried. Salary £80 per annum, with board and residence in the hospital.

Births, Marriages, and Deaths.

BIRTHS.

BROWN.—On March 10th, at Museum-street, Ipswich, the wife of Herbert H. Brown, M.D., B.S., F.R.C.S., of a daughter.

DUCKWORTH.—On March 6th, at 11, Grafton-street, Piccadilly, the wife of Sir Dyce Duckworth, M.D., of a son.

FRANCIS.—On Feb. 28th, at St. Andrew's, Uxbridge, the wife of L. A. Francis, M.R.C.P., of a son.

GOOD.—On March 5th, at Dorchester, Dorset, the wife of William Ernest Good, M.R.C.S., of a son.

MCGEAGH.—On March 3rd, at 28, Spellow-lane, Liverpool, the wife of R. T. McGeagh, of a son.

MACPHAIL.—On March 10th, at Rowditch, Derby, the wife of Rutherford Macphail, M.D. Edin., of a son.

NORRIS.—On March 9th, at Oak-hill-road, Surbiton, the wife of F. B. Norris, M.A., M.B., B.C. Camb., M.R.C.S. Eng., L.R.C.P. Lond., of a daughter.

ROBERTSON.—On March 8th, at Alton-road, Roehampton, S.W., the wife of A. Milne Robertson, M.D. Edin., of a daughter.

THORNTON.—On March 7th, at 49, Montagu-square, W. the Hon. Mrs. Knowsley Thornton, of a daughter.

TROW.—On March 7th, at Market-place, Devizes, Wiltshire, the wife of Vivian Trow, M.B. Aberd., of a son.

WALLIS.—On March 10th, at Old Stone House, East Grinstead, the wife of Percy Evershed Wallis, M.R.C.S., L.R.C.P., of a daughter.

WATKINS.—On March 6th, at Saxonhurst, Boscombe, Bournemouth, the wife of Walter Watkins, L.R.C.P., M.R.C.S. Eng., of a son.

MARRIAGE.

CURRIE—GOUGH-GUBBINS.—On Feb. 8th, at Harrismith, Orange Free State, Oswald James Currie, M.B., M.R.C.S., of Maritzburg, Natal, eldest son of Alexander Currie of Blackheath, to Sara, second daughter of the late George Gough-Gubbins, of Summerville, County Limerick.

DEATHS.

NICHOLSON.—On Feb. 16th, at sea, Arthur Nicholson, L.R.C.S. and L.R.C.P. Edin., Assistant-Surgeon in the Colonial Service, and fourth son of John B. Nicholson, of Clare Lodge, Haxey, aged 30.

SUTHERLAND.—On March 6th, William Hope Sutherland, M.B., C.M., Health Officer, Rangoon Municipality, eldest son of the late Dr. John Sutherland, Inspector-General of Hospitals, Bengal Army.

REVELL.—On March 1st (suddenly), at Alexandra House, Saltash, Cornwall, Richard Carter Revell, J.P., C.C., Surgeon (Mayor of Saltash).

WATKINS.—On March 5th, 1896, at Stone-Legh, Newton-le-Willows, Lancashire, Harriet Bromehead, the wife of John W. Watkins, aged 63 years.

WEATHERS.—On March 8th, at Batoum-gardens, Hammersmith, George Weathers, M.R.C.S. Eng., aged 80.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (16th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (17th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (18th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (19th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (20th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY (21st).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

TUESDAY (17th).—PATHOLOGICAL SOCIETY OF LONDON.—Papers:—Mr. J. H. Targett: Cystic and Encystic Epithelioma of the Bladder.—Mr. B. H. Fenwick: Cystic Tumour of the Bladder.—Mr. S. G. Shattock: Exogenous Adenomata of the Thyroid.—Mr. J. Berry: A Series of Thyroid Cysts and Adenomata.—Dr. Hale White: Acute Nephritis from Oxalic Acid Poisoning.—Dr. Ogle: (1) Sarcoma of the Œsophagus; (2) Papilloma of Trachea following Tracheotomy. Card Specimens:—Mr. Shattock: Saponified Necrotic Area in a Lipoma of Thigh.—Mr. Douglas Drew: Cured Aneurysm of External Iliac Artery.

WEDNESDAY (18th).—ROYAL METEOROLOGICAL SOCIETY (22, Gt. George-st., Westminster).—7.30 P.M. Mr. F. Gaster: Weather Forecasts and Storm Warnings, how they are Prepared and made Known (illustrated by diagrams, &c.).

ROYAL MICROSCOPICAL SOCIETY (20, Hanover-sq., W.).—8 P.M. Dr. A. C. Stokes: On some American Rotifera.

SOCIETY OF ARTS.—8 P.M. Dr. D. Morris: The Bahamas Sisal Industry.

THURSDAY (19th).—HARVEIAN SOCIETY (Stafford Rooms, Titchborne-street, Edgware-road, W.).—8 30 P.M. Dr. Bowles: Nauheim and the Schott Treatment of Diseases of the Heart.

SOCIETY OF ARTS (Imperial Institute, South Kensington).—8.30 P.M. Mr. J. H. Glass: The Great Landslip at Gohna, in Gurhwal, and the Measures adopted to Prevent serious Loss of Life.

SOCIETY OF ANÆSTHETISTS (20, Hanover-square, W.).—Paper by Sir Benj. Ward Richardson.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (16th).—LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 1 P.M., Mr. E. T. Collins: Myopics and Mydriatics.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Dr. Whistler: Syphilis as it Affects the Larynx.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Mr. W. G. Spencer: The General Pathology of Bone. (Erasmus Wilson Lecture.)

TUESDAY (17th).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Puerperal, Lactational, and Climacteric Insanities.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—5 P.M. Dr. P. Manson: The Life History of the Malaria Germ outside the Human Body. (Goulstonian Lecture.)

WEDNESDAY (18th).—NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Beevor.

HOSPITAL FOR CONSUMPTION, &c. (Brompton).—4 P.M. Dr. Acland: Tuberculosis in Children.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Pemphigus and Dermatitis Herpetiformis.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Mr. W. G. Spencer: The General Pathology of Bone. (Erasmus Wilson Lecture.)

LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 8 P.M., Mr. A. S. Morton: Muscular Affections.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: Urticaria.

THURSDAY (19th).—ROYAL INSTITUTION.—3 P.M. Rev. W. Barry: Masters of Modern Thought—Goethe.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Dr. Sansom: Clinical Lecture.—Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M., Dr. Allan Macfadyen and Mr. A. G. Foulerton: Detection of Pathogenetic Micro-organisms in Urine.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—5 P.M. Sir Dyce Duckworth: On the Sequels of Diseases. (Lumleian Lecture.)

FRIDAY (20th).—LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M., Prof. Crookshank: Erysipelas and Suppuration.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL.—4 P.M. Mr. Lennox Browne: The Pharyngeal Tonsil—Adenoids—Tornwaldt's Disease.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Mr. W. G. Spencer: The General Pathology of Bone. (Erasmus Wilson Lecture.)

ROYAL INSTITUTION.—9 P.M. Prof. T. R. Fraser: Immunisation against Serpents' Venom and the Treatment of Snake-bite with Antivenene.

SATURDAY (21st).—ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Light.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—5 P.M. Dr. Morgan Dockrell: Ichthyosis.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*.; by post, 2*s*. 3*d*.

To be obtained on application to the Manager, accompanied by remittance.

"INSURANCE AGAINST SICKNESS OR ACCIDENT."

To the Editors of THE LANCET.

SIRS,—I feel sure you will be glad to correct an omission in your reply to "G. N. S." *re* insurance against sickness and accident in THE LANCET of March 7th. From your reply it would appear that membership in the Medical Assurance Society (33, Chancery-lane, London) does not cover disability from accident. This is not so, as the term "sickness" covers disability from accident or other illness. As the society is purely mutual and has during more than ten years past firmly established its position—it is surely the one to which the profession should first look. You also omit mention of the Sickness and Accident Assurance Association, Limited, 24, York-place, Edinburgh, an association that also adequately meets "G. N. S.'s" requirements. I feel it only right to write thus, as within the past twelve months I have been twice generously treated by both associations, to which I have belonged for some years.

I am, Sirs, yours truly,

March 7th, 1896. W. GILCHRIST BURNIE.

A Successful Candidate.—Will our correspondent kindly communicate with us?

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"MEDICAL MEN AND THE INTERVIEWER."

To the Editors of THE LANCET.

SIRS,—With reference to the paragraph which appears in your last issue, headed "Medical Men and the Interviewer," would you kindly state that the name of the medical man in question appeared entirely against his wish, the information concerning the new photography being given on the express understanding that his name should not appear. I am, Sirs, yours truly,

D. B. PATERSON,

March 10th, 1896. Hon. Secretary Cardiff Medical Society.

H. E. T.—The announcement proposed is not to be approved. It is a form of advertisement, and the advertisement of professional services to all and sundry.

DISLOCATION OF THE GLOBE OF THE EYE AND CANCER IN DOGS.

To the Editors of THE LANCET.

SIRS,—Knowing the deep interest a number of your readers take in the diseases of the so-called lower animals, I have very great pleasure in sending you the following rough notes of two cases which are I believe not without interest.

Some ten or a dozen years ago we had two dogs, a male pug of the usual colour, and a female retriever of an unusual shade, entirely pale snuff. These two dogs were very good friends and playmates. Latterly, however, I noticed that the retriever was rather more snappish than usual and she walked about more slowly, and stood about, not lying down so often. She did not bark at the approach of strangers. One day she seemed rather more snappish than ordinarily and bit the pug dog in the orbital region. The eye protruded very badly as a result and appeared from its position to be almost useless. Chloroform, however, was administered, castor oil was put upon the globe of the eye, and gentle pressure was made in a direction backwards and inwards, with the result that the eye slipped backwards and the pug did not appear much the worse for the accident. This case would go far to show that a very considerable degree of dislocation of the eye may take place, in the pug dog at least, without much injury to the sight. Subsequently the pug was bitten again in the same region and with the same result, but as the protrusion this time was considered so very irremediable the pug was destroyed. Afterwards the retriever seemed to look so very sad and refused to take her food. She was taken to a distinguished "canine surgeon," who pronounced her to be suffering from "jaundice" and "disease of the liver." As this diagnosis seemed somewhat out of the way, and as I could not see any symptoms of jaundice, excepting the unusual colour of the dog's coat, which I had always regarded as normal, I myself made a careful examination of the animal, and, as there was no change in the sclerotic and no increase or diminution of the hepatic dulness, and no increase in the colour of the urine or decrease in the colour of the fæces, I came to the conclusion that there was no disease of the liver of any importance. I then found, by accident almost, that there was some small glandular enlargement in the region of the larynx, which gradually got larger. The veterinary "canine surgeon" was again asked to see the case, and adhered to his previous opinion, saying that the lump in the throat was of no importance, and that it would soon be all right. However, I did not feel so sure on this latter point, and I decided to watch the dog myself. I then noticed that this lump was moderately hard and got rapidly larger. I soon came to the conclusion that the case was probably one of cancer of the larynx. She continued to take her food in decreasing quantity, and at the same time lost flesh and never barked. One day she was, I believe, found dead in the stable. As I had taken more interest than usual in this case I determined to make a post-mortem examination, which I proceeded to do. The liver appeared to me to be normal in every way, and free from cancerous deposit. There was a large hard mass surrounding the larynx and trachea, which I myself took to the Royal College of Surgeons for the purpose of further pathological examination. What the result of that examination was I have not heard from that day to this. The death of the retriever seemed to take place from increasing weakness, as her hindquarters, instead of being above the level of the dorsal region, appeared to be considerably lower, and sloped off to an angle of about 45°, the hind legs at times suddenly giving way, and she did not seem able to go up and down stairs. With the exception of her peculiarly sad expression she did not evince that she was in any way suffering from pain and always allowed the growth to be handled freely. I very much regret that lapse of time and other circumstances prevent me from reporting these two cases as fully as I could have done at the time of the accident.

I am, Sirs, yours faithfully,

London, S.W., March 6th, 1896. ALBERT S. MORTON.

TUITION FOR CURE OF STAMMERING.

Medicus would be glad to know of any reliable teacher or suitable institution with a view to above (at moderate terms) for a boy aged sixteen years.

Mr. W. McCaguc.—The office of the General Medical Council is at 299, Oxford-street, London. Our correspondent should consult a solicitor with reference to his other questions.

"CYCLING AND HÆMORRHOIDS."

To the Editors of THE LANCET.

SIRS,—Will you allow me, in reply to the inquiry of "General Practitioner" with reference to the influence of cycling on hæmorrhoids and varicose veins, to tell him that the whole subject is treated in the sixth chapter of my book, the English translation of which bears the title "Cycling and Health" (second edition, Iliffe and Son). Not only hæmorrhoids and varix, but also varicocele, are immensely benefited by rational cycling, as is proved by the numerous instances communicated to me by other practitioners. In collecting the materials for the book in question I applied to 400 or 500 medical men, schoolmasters, clergymen, engineers, and other intelligent persons, begging them to give me instances of evil as well as satisfactory results. Not a single instance of harm was reported to me, although in a few cases the respondent gave his opinion that cycling might be productive of harm in this respect. Of this I was quite aware, for I have often seen young racing men with immensely distended veins in the lower extremities. But as in every other therapeutical application of cycling, it resolves itself into the question of moderation or excess, and the personal equation in this respect being a very variable one, it is often difficult to convince a given individual that his pace and distance are excessive. One healthy man may be able to do 150 miles without undue exertion, whilst another, in apparently the same physical conditions, ought not to exceed forty or fifty. Cyclists should not allow themselves to be carried away by a spirit of emulation, or, at any rate, if they do so with riders of superior capacity they may blame their own vanity and not the exercise for any harm that may result. I am, Sirs, yours truly,

Paris, March 2nd, 1896. OSCAR JENNINGS.

"THE PULSE-GLASS."

To the Editors of THE LANCET.

SIRS,—Supplementing my letter in THE LANCET of March 7th, 1896, there are other forms of pulse-glasses, including a small Cartesian figure made of hollow glass, which the hands heat by making the fluids contained in the tube and bulb boil and bubble, causes the manikins to dance up and down. Cartesian figures are so called after Des Cartes, the French philosopher. For the amusement of my children, for some time past, I have been engaged in producing playthings which are partly improved modifications of the pulse-glass. As soon as these are completed by the manufacturer, if your correspondent, "A Medical Man," will kindly privately favour me with his name and address, for the honour of his acceptance I shall be happy to send him some of these toys. I am, Sirs, yours truly,

Brighton, March 8th, 1896. J. LAWRENCE-HAMILTON, M.R.C.S.

THE COMMON COLD.

MR. GEORGE STREET is well known as an acute observer of character, a pleasant writer of unpleasant stories, and an admirable stylist. We beg to bring him to the notice of our readers in a new character—that of a clinician. It is not often that a layman writes of medical matters in a way that is worth recording, but we think Mr. Street's picture of the results of a common cold, as given in his new book, "Quales Ego," will strike everyone as singularly subtile and faithful:—"The mental effects are terrible, or would be so had you strength of emotion to compass terror withal. They give you a foretaste of the grave, or at least of that day when, old and weak and in the care of others, you will look on some written achievement of your prime and wonder at the power which was yours. For now the mind is incapable of initiative and of fresh understanding. If you read, your reading must be a book you know by heart, one whose problems you have solved or whose emotional value you have gauged. Then your mind, poor servile thing, may repeat its lesson and cheat you with an air of activity; but should it attempt to master a new idea or a new setting of a story, and insist that it equal its old endeavour, expect bewilderment, despair, fever. And if you meditate—ah! do not meditate—your mind will slip backwards, as a barrow that a man has tollingly pushed up a steep hill, and will stick fast in some rut of memory. From being an ordinarily bustling worshipper of our great western god, Fuss, you are become for the nonce an Oriental philosopher—a very Mahatma of Thibet. The world may jog as it will, philanthropists muddle, politicians mouth it, novelists preach a dozen new religions, for aught you care. You dwell apart in an island formed by screens; there you sit, intent on nothing, fearless, and hopeless. News that a despised inferior has passed you in the race for Dead Sea apples moves you not; the praise of the wise and the oblivion of the mob are alike nothing to you now. You had formed designs to do this and that, and the day of execution is passing away for ever. You care not; time may be a-flying, but why gather roses for a nose that cannot smell? Good lack! what a tiny cause has made wreck of a proper gentleman! You are no longer human—nay, scarce animal: a thing laid on the shelf, a piece of useless lumber, or just redeemed the neuter gender by suffering. I am woe for you, my friend, who have a cold in the head."

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AN ARTIFICIAL SPONGE.

WE have received from Mr. Walker Riley, of Planetrees-road, Laisterdyke, Bradford, an artificial sponge which seems to possess, so far as we have tried it, some additional advantages over the ordinary article with none of its disadvantages. Unless the reticulated elastic framework of the porifera is carefully attended to it becomes in time slimy and greasy, but the new substitute, instead of retaining the dirt, grease, and chemicals from the soap, consigns them to the water, and the sponge shows no alteration in its cleanly condition after many months' use. From an economical point of view the new sponge possesses a decided advantage over the natural article, for it costs less and lasts much longer. This artificial sponge, which possesses good absorbing qualities, is made with loops attached, and by the aid of tapes the sponge can be drawn across the back and the parts of the body which are beyond the reach of the individual's hand. Another advantage is the gentle friction which this article produces, and we can thoroughly recommend its use.

WANTED, A HOME.

To the Editors of THE LANCET.

SIRS,—Can you, or any of your readers, inform me if there is a home or institution where a young woman, aged thirty-one years, who is addicted to intemperance occasionally, could be received? She would be useful as a needlewoman and could pay £1 a week.

I am, Sirs, yours truly,

March 10th, 1896. R. W.

WHAT'S IN A NAME?

WE have received the following circular from a correspondent to whom it was sent by post in an open envelope. We print it just as it stands, omitting the address, and desire to ask the Postmaster-General whether he considers it fitting that such matter should be distributed by the agency of his department?—

TO THE MEDICAL PROFESSION.

We beg to call the special attention of the Medical Profession to the new instrument (patent)

ATOCOS

for the thorough disinfection of the Vagina, &c., by Powdered Antiseptics.

Long has the necessity for such an instrument been felt and many appliances were brought into the market, all of which were soon discarded, none proving to be of a practical value.

Of all the advantages we claim for the

ATOCOS,

Invented by F. J. Justus, M.D.,

we will now only mention simplicity of use, which enables the patient to apply it with complete effect without any assistance.

The Atocos met with the greatest possible success (tens of thousands have been sold during the last few months) all over the Continent, especially Germany, where, however, apart from its use as a surgical instrument, it found the greatest favour among the public in connexion with a certain spermicide powder.

In Germany and other continental countries the advisability of putting into Practice Malthus's doctrines is recognised by legislation, but not so in Great Britain. We therefore offer to supply the Atocos to none but the medical profession, and to them as a surgical instrument only. They, on the other hand, will know when to advise its use as a preventive, for instance, in such cases when pregnancy would lead to certain death, &c., &c.

Sample instrument and any further particulars sent to medical men on application.

Cash Price 8s. each, less a discount of 33 per cent.

CARSON'S ANTI-STOOP.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to ask through the columns of THE LANCET whether anyone can speak as to the efficiency of Carson's Anti-stoop in cases of long standing; say in a man of over forty years who has had a pronounced stoop for fifteen or twenty years.

I am, Sirs, yours faithfully,

March 2nd, 1896. ARTEGAL.

WANTED, A SUGGESTION.

To the Editors of THE LANCET.

SIRS,—I should feel grateful for any suggestion as to the best treatment of the following troublesome symptoms. An old gentleman who has recently suffered from alcoholic neuritis, but who has made fair progress towards recovery, complains of incessant and intolerable itching of both forearms accompanied by extreme mental excitement and irritability. The remedies tried are—cannabis indica, hyoscyamus, bromides, digitalis, Easton's syrup; locally, ung. atrop., salicylic acid, carbolic acid, boric acid, lin. chlorof., aconite, &c.

I am, Sirs, yours faithfully,

March 8th, 1896. NEMO.

Mr. Thos. E. Johnson is advised to consult his medical attendant.

MEDICAL ADVERTISING.

A CORRESPONDENT sends us a copy of *The Englishman* (published in Calcutta) of Feb. 6th, 1896, containing an advertisement extending over three columns and a half, headed "Dr. Maloney." In view of the statement in the advertisement that "Nothing but a sense of duty could have induced Dr. Maloney to give up his former lucrative practice, and thus advertise himself contrary to the etiquette of his profession," and of the publication by him of copies of his diplomas from the Royal College of Surgeons of England and the Society of Apothecaries of London and of his medical registration certificate, we think it right to state that his Christian names are given as William Robert Nuttall, and that the name of William Robert Nuttall Maloney appears in the Medical Register for 1896.

A CASE OF PERIODIC VOMITING.

To the Editors of THE LANCET.

SIRS,—Will any of your readers kindly give their opinion of the following case from the brief notes appended? A healthy looking girl, aged eight years, has suffered since she was five years old from periodic attacks of vomiting. She had been going to school a few months when the first attack occurred. The vomiting at first was without effort or straining, it lasted about six hours, and the interval between the attacks was from two to three weeks. Now the patient does a lot of straining, the vomiting lasts from twenty to thirty hours, and she is quite collapsed at the end of it, and the interval between the attacks is only from seven to eleven days; the eleventh day is very frequently the day of onset. The vomiting has no special relation to meals, though the first ejecta consists of food and afterwards of a watery, frothy fluid. Everything given while the attack lasts is rejected. The vomit is very acid, but microscopical examination revealed nothing abnormal; bile has only been noticed once or twice. The vomiting has never commenced in the night. During the intervals the patient seems apparently quite well, enjoys her food and attends school. A day or two before the attack begins she is observed to be paler than usual. The bowels act regularly. She now suffers at times from severe headache, but this has only troubled her lately. During the attack the patient lies on her stomach with the knees drawn up under her; she seems in a sort of stupid condition and is reluctant to speak. There is no abdominal pain. Nothing abnormal was detected from physical examination of the abdomen, or from ophthalmoscopic examination of the eyes. The patient has been seen and treated at different times by the local medical men, she has been seen by an authority on children's ailments, and been under treatment for about six weeks in a children's hospital. No treatment—dietetic, medicinal, &c.—has appeared to benefit her. The longest interval between two attacks was one of six weeks, and this was after a visit of ten days to Blackpool. The patient has never lost weight except when put on a strict diet, though now, since the attacks have become more frequent and more severe, she is beginning to lose flesh. I may add that the family history is good.

I am, Sirs, yours faithfully,

March 7th, 1896. F.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 12th, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Mar. 6	29·74	W.	49	47	69	54	44	0·01	Overcast
" 7	30·04	N.W.	45	41	60	54	43	...	Overcast
" 8	30 01	S.W.	54	52	64	56	45	0·48	Raining
" 9	29 98	W.	54	52	78	61	51	...	Raining
" 10	30·27	N.E.	42	40	76	53	40	0·21	Hazy
" 11	30 05	S.W.	50	48	78	60	41	0 01	Cloudy
" 12	30 08	N.E.	44	43	52	45	43	0·06	Overcast

During the week marked copies of the following newspapers have been received: — *Accrington Observer, Wolverhampton Chronicle, Dover and County Chronicle, Devon Gazette, Poole Herald, Birmingham Post, Bedford Mercury, Yorkshire Herald, North Star, Herald (New York), Carlisle Journal, Hull Daily News, Isle of Wight Observer, Mid-Surrey Gazette, Morning Leader, Sussex Daily News, Yorkshire Post, North British Daily Mail, South Wales Daily Post, Dundee Advertiser, Liverpool Daily Post, Irish News, Edinburgh Evening News, Scotsman, Leeds Mercury, Exeter Evening Post, Newcastle Chronicle, East Anglian Daily Times, Ashton-under-Lyne Reporter, Surrey Gazette, Bristol Mercury, Hastings Independent, City Press, Times of India, Western Daily Mercury, Bradford Observer, Finchley Free Press, Pioneer Mail, Builder, Citizen, Architect, Hertfordshire Mercury, West Middlesex Standard, Reading Mercury, Mining Journal, Weekly Free Press and Aberdeen Herald, Local Government Chronicle, Brighton Gazette, Burnley Gazette, Gloucestershire Chronicle, Surrey Advertiser, Local Government Journal, Le Courrier de la Presse, The Morning Gazette and News (Blackpool), Grimsby News, Chatham News, Jarrow Guardian, The Mail (Portsmouth), Evening News (Portsmouth), &c., &c.*

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The Goulstonian Lectures

ON

THE LIFE-HISTORY OF THE MALARIA GERM OUTSIDE THE HUMAN BODY.

Delivered before the Royal College of Physicians of London

BY PATRICK MANSON, M.D. ABERD., F.R.C.P. LOND.,

PHYSICIAN TO THE SEAMEN'S HOSPITAL, ALBERT DOCKS; LECTURER ON TROPICAL DISEASES AT ST. GEORGE'S HOSPITAL AND CHARING-CROSS HOSPITAL.

LECTURE II.[1]

Delivered on March 12th, 1896.

THE ESCAPE OF THE PARASITE FROM THE HUMAN BODY.

MR. PRESIDENT AND GENTLEMEN,—I have endeavoured to show that the flagellated phase of the malaria parasite is in all probability the extra-corporeal homologue of the intra-corporeal sporulating body; that the latter provides for the propagation of the plasmodium inside the human body, whilst the former provides for its propagation outside the human body. I also dwelt on the fact that it is only when the plasmodium has escaped from the body that this flagellated phase can and does appear. The question now comes to be: Seeing that the escape from the body of its human host is necessary for the development of this, the first phase of the extra-corporeal plasmodium, how is this escape brought about?

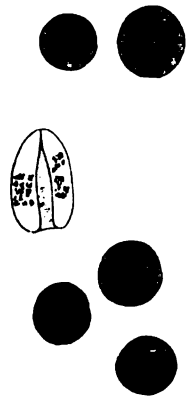
THE MOSQUITO THEORY.

Casting about for an agent that would meet the requirements of the case it occurred to me, as it had already occurred to Laveran, that as the plasmodium is a passive blood parasite its escape from the human body might be effected on the same principle that the escape of the passive muscle parasites is effected. As the latter obtain their opportunity by being swallowed by some flesh-eater—some carnivorous animal—I thought the former might get its chance of development by being swallowed by some blood-eater, some suctorial animal, such as the flea, the bug, the louse, the leech, the sand fly, or the mosquito. The geographical distribution of malaria and other very manifest considerations seem to point to one or other of the last two as the most likely liberating agent, and the notorious association of malaria and mosquitos with damp and stagnant water seemed to indicate more especially this insect.

ANALOGY WITH FILARIA.

I was further impressed with the probability of the mosquito being the liberating agent of the plasmodium by a consideration of the remarkable similarity that obtains between the structure, habits, and requirements of the plasmodium, and the structure, habits, and requirements of the filaria—a parasite which I had already shown to be dependent on the mosquito for liberty and the opportunity for development. Thus, in the first place, the plasmodium and the filaria are both of them blood parasites, and both of them require to leave the blood in order to continue their respective species. Again, the filaria of the blood—filaria nocturna at all events—is enclosed in a loose sheath. Similarly the potential flagellated plasmodium, whether as sphere or crescent, while in the bloodvessels is enclosed in a blood corpuscle, which practically performs the function of a sheath. The filaria is sheathed to prevent its escaping from the bloodvessels into the peri-vascular tissues for the reason that, if it got there or escaped from the bloodvessels, it would be out of the way of the mosquito when this insect visited the body of the host. The filaria has a very elaborate and powerful oral armature—a piercing apparatus—which it seems always eager to use. To prevent the premature use of this weapon on the walls of the bloodvessels Nature has muzzled the filaria by enclosing it in the loose sac or sheath I refer to; so long as the parasite is inside this sac it cannot apply its oral armature to the walls of the bloodvessels. The plasmodium is similarly sheathed by the blood corpuscle it lies in, because, were it free in the blood, it would be set on immediately and destroyed by the phagocytes. The filaria is sheathed to prevent its committing suicide; the plasmodium is sheathed to protect it from being murdered. The sheathing in both instances has for its object the same thing, the preservation of the sheathed organism. The sheath in which the filaria is enclosed is easily demonstrated. It is not always easy, however, to make out the enveloping corpuscle which functions as a sheath or protecting agent for the plasmodium, either in its phase of potential flagella-producing sphere or as crescent. Sometimes, however, the former may be detected in the act of slipping out of or bursting their sheathing corpuscles; at such a moment the existence of the corpuscular sheath is very apparent. In the case of the crescent plasmodium the remains of the enveloping corpuscle can generally be readily recognised in the line that, bow-like, spans the concavity of the crescent. The preparation from which the accompanying drawing (Fig. 13) was made

FIG. 13.



clearly demonstrates the corpuscular nature of this bow. The drawing represents a double crescent of a peculiar type, the only one of its kind I have ever come across; nor do I recollect having seen either a description or a drawing of the same kind of double crescent. I fancy, therefore, it must be exceedingly rare. The case from which the preparation came was one of irregular fever and malarial cachexia in which the blood contained large numbers of crescents of the usual type. You can see that there are two separate and distinct crescents lying together and so disposed that their concavities face each other, the upper horns being in apposition, but the lower horns being separated by a considerable interval. You can also make out that a very delicate line unites the lower horns and that the space between the bodies of the twin crescents is occupied by a sheet of very pale hæmoglobin. This figure affords a convincing explanation, if such were needed, of the true nature of the arc line in the ordinary crescent. This line does not belong to the parasite, but to the blood corpuscle in which the parasite had developed and lies. If it belonged to the parasite, or were an integral part of the parasite, then, in the case of the twin crescents represented, each crescent would have its own special arc line—two crescents and two arc lines. This, you see, is not the case. The two crescents developing in the same corpuscle have been compelled to share the corpuscular capsule in common.

THE PLASMODIUM AND THE FILARIA BOTH CAST THEIR PROTECTING ENVELOPES.

Another parallel between the filaria and the flagella-producing forms of the plasmodium lies in the facts that not only are both parasites provided with a sheath, but both parasites cast this protecting covering when they get outside the body, and in both this casting of their sheaths can be artificially brought about on the microscope slide.

ESCAPE OF THE FILARIA FROM ITS SHEATH.

To study this phenomenon in the case of the filaria we place an ordinary vaseline sealed preparation of filaria containing blood near a window in frosty weather, or, if the weather be mild, on a block of ice. The slide is left in the cold for several hours—say, overnight—and then examined

[1] Lecture I. was delivered on March 10th and published in THE LANCET of March 14th.

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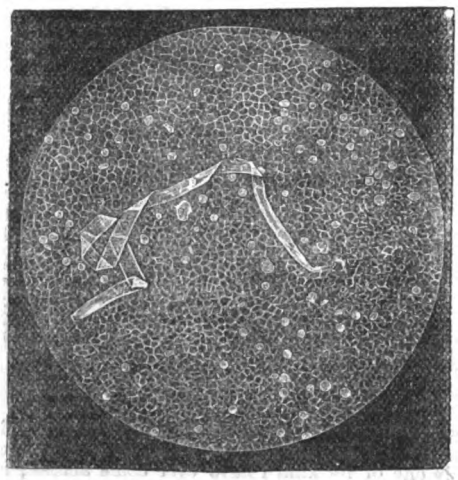
with the microscope at the ordinary temperature of the room. We shall then find that, as the slide warms up, the chilled and languid filariæ gradually resume their usual active movements. But, in addition to this, in addition to the wriggling about like a worm on a hook seen in ordinary unchilled preparations of fresh blood, the filaria begins to indulge in a peculiar rushing, butting movement of quite a new character. Lying inside its long, loose sheath, it ever and anon retires towards the tail end of this, and then suddenly and rapidly darts forward, throwing itself with great force against the head end of the sheath. Evidently this butting movement is an endeavour on the part of the parasite to break through and escape from the sheath. The chilling to which the blood had been subjected has had the effect of causing the hæmoglobin to leave the red blood corpuscles and become diffused through the liquor sanguinis. This diffusion of hæmoglobin has thickened the blood, and so favours, and perhaps has provoked, the efforts of the worm to escape. We can see that the thick and viscid blood clings to the sheath and holds it, as it were, thereby enabling the

FIG. 14.



little animal within to butt the sheath more effectually. Sooner or later it succeeds in effecting what is manifestly the object of these butting movements; it breaks through the head end of the sheath, and finally wriggles itself free from the trailing encumbrance (Figs. 14 and 15). And now

FIG. 15.

another thing is noticeable about the movements of the filaria. While still in its sheath, though very active in wriggling about, the filaria never changed materially its position on the slide and there was no need to shift the slide about to keep the parasite in the field of the microscope, but now when it has succeeded in ridding itself of the sheath, the style of movement undergoes a complete change; the worm is no longer stationary, but begins to travel about all over the slide, moving restlessly from one part of the preparation to another as if searching for something, so that to keep it under continuous observation the slip has to be constantly shifted. The wriggling stationary movement is changed into a locomotive movement.

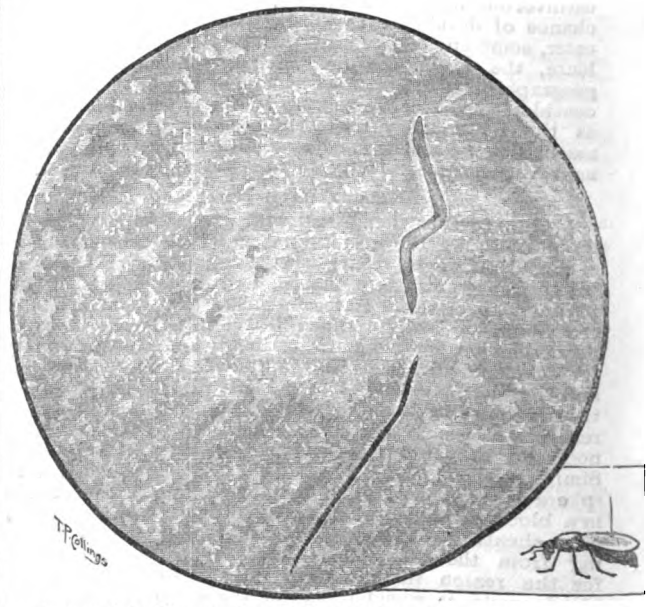
ESCAPE OF PLASMODIUM FROM BLOOD CORPUSCLE.

Similarly, as I have pointed out, the crescent form of the plasmodium, when newly abstracted from the circulation, lies motionless in its sheath—the sheltering blood corpuscle; it is stationary; but when the crescent has been outside the body for a very little time it often commences to change its shape, and in doing so ruptures its corpuscular capsule; the parasite then—like the filaria on the chilled slide—becomes free in the blood. And just as the filaria, freed from its sheath, acquires a locomotive faculty and travels away, so the flagella, which develop on the disappearance of the corpuscular capsule, tend to break away and to swim to a distant part of the preparation. Both parasites on ridding themselves of their sheaths develop locomotor habits. These may seem small and insignificant facts to dwell on. Not so; the most trifling anatomical or physiological fact has a meaning could we but read it aright. This meaning has nearly always—particularly in the lower forms of life—a direct reference to the interests of the species exhibiting the phenomenon. I can easily interpret and demonstrate the meaning of these things which I describe about the movements of the filaria. I would seek to apply to the plasmodium the reasoning and interpretation which hold good for the filaria; to draw from the analogy of the filaria some assistance in getting at the life-history of the plasmodium.

FUNCTION OF THE SHEATH IN THE FILARIA.

Let us follow out the meaning of the facts in the case of the filaria. I have already pointed out the reason for its being enclosed in a sheath, to prevent its using its oral armature on the bloodvessels of its human host and thereby escaping into the perivascular tissues, where it would be out of the reach of the friendly mosquito. When the mosquito has transferred to its stomach the filaria and the blood in which it floats the filaria is still in its sheath. Presently, however, the blood in the insect's stomach undergoes exactly

FIG. 16.



A somewhat oblique section of a filaria in the stomach of a mosquito. The darker object is the filaria; it has just escaped from its sheath, the more lightly shaded object lying above the free filaria.

the same thickening from escape of hæmoglobin into the liquor sanguinis which we produced artificially on our chilled slides. Thus, in the mosquito the filaria is provided with the physical conditions which prompt it to try and which are necessary for enabling it to break through its sheath; this in time it succeeds in doing (Fig. 16); but when it has

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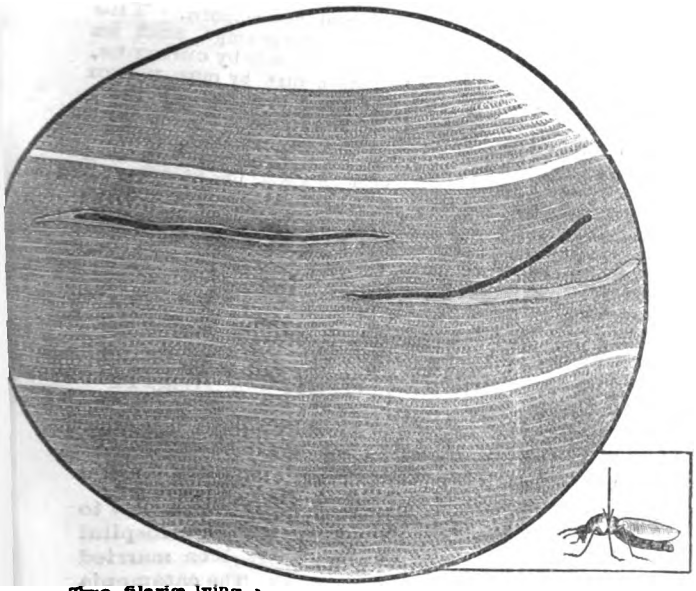
got through its sheath it is still relatively a long way from its destination, from the end of its journey. The filaria has to get into the thoracic muscles of the mosquito before it can utilise this insect as an intermediate host in which to complete its metamorphosis, this being effected in the thorax and not in the abdomen. It has to travel from the centre, perhaps, of the mass of blood in the mosquito's stomach to the walls of the stomach, and thence to the thoracic muscles (Fig. 17), a long journey, if

FIG. 17.



Two filariæ lying between the muscular fibres in the thorax of the mosquito.

we bear in mind the size and equipment of the traveller. Accordingly a physiological change comes over the unsheathed parasite; the wriggling movement which had previously characterised it is changed into a locomotive movement. This locomotive movement has for its first object to transfer the filaria to the walls of the insect's stomach; and now we understand the object of the armature with which nature has provided the parasite and why she had previously sheathed this armature so carefully, and why she has unsheathed it later. When the filaria gets to the end of this first stage of its journey and arrives at the walls of the mosquito's stomach it employs the now naked beak and hooks to tear through this viscus, and then, boring and squeezing along and between the fibres of the thoracic muscles, to work its way to the destination, where it will subsequently undergo the metamorphosis qualifying it for further life. I have many times followed out the little drama I describe. These drawings made from actual preparations illustrate the main facts very well.

[Dr. Manson here argued that the analogy between the structure, habits, and requirements of the filaria and the plasmodium respectively might be applied to their life-histories as well. He described the affinity of the plasmodium to the sporozoa and continued:—]

The gymnosporidia, as the order to which the plasmodium belongs has been named by Labbé, are in many respects like the gregarines, in other respects like the coccidia. The members of the three orders are all of them intracellular parasites during either a considerable part or the whole of their lives; they all propagate, of course, by the production of spores, and in all of them the spores have to get transferred somehow from one host to another in a more or less passive way. The gregarines and coccidia do not propagate outside the bodies of their respective hosts; I hold, therefore, as probable that their close allies the gymnosporidia—such as the plasmodium of man and the halteridium and proteosoma of birds—do not live at any time as free organisms, unless, perhaps, it be sometimes as a resting spore, but are always parasitic during their active propagating life. And so I consider that the reason why the plasmodium on entering the mosquito pushes for the walls of the insect's stomach is that it may get at some cell in the mosquito's body, therein to curl itself up and grow and sporulate just in the same way as it does in the blood corpuscles of man, and as is the habit of its allies the gregarines and coccidia. Where in the mosquito's body and what the particular cell is I do not pretend to be able to indicate. Perhaps, owing to the minuteness of the objects we are dealing with and the many practical difficulties attending the investigation, it may be long before that cell is found and the full history of the parasite in the mosquito is thoroughly worked out; but I feel certain that in time these things will be established on the lines I indicate, and that the life history of the plasmodium will be revealed as completely for the mosquito as it already is for man.

THE ADVENTURES OF A FLAGELLUM.

So far as I am aware no one has seen the plasmodium flagellum enter a cell; but that it has the desire and the power to do so seems to be certain. I have lately received a letter bearing on this point from Surgeon-Major Ronald Ross, I.M.S., whose remarkable work on the plasmodium in the mosquito I shall fully describe in my concluding lecture. In this letter there occurs a passage which describes very graphically what I may call the adventures of a flagellum. Referring to the examination of a certain malarial patient's blood he writes:—

"I said I was going to watch free flagella. I found one in my first specimen and watched it continuously for three hours. So much for the statement that free flagella soon become quiescent and vanish in the serum. At first it wriggled about for twenty minutes like a trypanosoma, so that I could hardly follow it. Then it brought up against a phagocyte and remained there so long that I thought the phagocyte had seized it. Not so; it was neither killed nor sucked in, but was actively engaged in attacking the phagocyte. The flagellum kept at this for about a quarter of an hour and then wriggled away across two fields and in the direction of another phagocyte. Into this second phagocyte it pushed in several places with one of its ends, and the phagocyte seemed to rear up and try in vain to get round and envelop the flagellum. At last the phagocyte seemed to give the struggle up, and flattened itself against an air bubble, the flagellum still attacking it. After fifty minutes, and when the flagellum seemed to be getting exhausted, a very curious thing happened. A third phagocyte approached, coming rapidly across the field, but it had no sooner got near than the flagellum left its fallen foe and attacked the new one, holding on to it and shaking like a snake on a dog. In one minute the third phagocyte turned sharp round and quickly made off; it went right across a whole field, the flagellum holding on to it. This continued for five minutes, after which the flagellum left the phagocyte. By this time the flagellum had become much more visible and had a large swelling in the middle. I watched it steadily as its movements became gradually slower. It was certainly able to attach itself to the cover-glass (as shown by touching it with a pen) by either end, and even perhaps by the swelling. At last this swelling moved to one end nearly and became very large and distinct until, after three hours, the creature evidently died; at any rate, it curled up and ceased to move." Surgeon-Major Ross goes on to say: "Is not this interesting? I think it shows, first, that the phagocytes have no more power over free flagella than they have over trypanosomes; secondly, that the beast was evidently attacking the phagocytes, probably mistaking them for some other kind of cell, so I judge by its leaving the phagocytes after a time."

I agree with Surgeon-Major Ross in considering these observations most interesting; more than that, in addition to being interesting they are highly important, for they not only establish the fact that the plasmodial flagellum attacks—that is, seeks to enter cells—but also that in the free state it can resist the phagocytes; and, contrary to the statements of many of the writers on the malarial parasite, that it does not die within a few minutes of its quitting the sphere from which it was originally emitted.

THE PLASMODIUM A PARASITE OF THE MOSQUITO.

I think I have advanced many cogent reasons for believing that the plasmodium malariæ on leaving man, and as a normal step in its life-history, becomes parasitic in the mosquito, and that in this insect it enters some cell—as any gregarine or coccidium would do—and probably develops into its reproductive sporulating form just as it does in the blood corpuscles of man. What then? How can its spores get out of the mosquito so as to increase and multiply and preserve its species from extinction when in the course of nature the mosquito dies? How, too, does it spread over the land, and how does it get back to man again?

Before attempting to answer these questions, I must first describe very briefly a passage in the life of the mosquito. The female mosquito, after she has filled herself with blood—the male insect is not a blood-sucker—seeks out some dark and sheltered spot near stagnant water. At the end of about six days she quits her shelter, and, alighting on the surface of the water, deposits her eggs thereon. She then dies, and as a rule falls into the water beside her eggs. The eggs float about for a time, and then in due course each gives birth to a tiny swimming larva. These larvæ, in virtue of a voracious

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appetite, grow apace, casting their skins several times to admit of growth. Later they pass into the nympha stage, during which, after a time, they float on the surface of the water. Finally, the shell of the nympha cracks along its dorsal surface and a young mosquito emerges. Standing, as on a raft, on the empty pelt the young mosquito floats on the surface of the water while its wings are drying and acquiring rigidity. When this is complete it flies away. The young mosquito larvæ, to satisfy their prodigious appetites, devour everything eatable they come across; and one of the first things they eat if they get the chance is the dead body of their parent, now soft and sodden from decomposition and long immersion. They even devour their own cast-off skins. In examining mosquito larvæ one often comes across specimens whose alimentary canals are stuffed with the scales, fragments of limbs, and other remains of the parental insect.

THE HISTORY OF A MOSQUITO GREGARINE.

I am indebted to Surgeon-Major Ross for many valuable facts in support of my views as to the life-history of the plasmodium; amongst other facts for the instructive story of the gregarine which inhabits the stomach and appendages of the Secunderabad mosquitos and their larvæ. He tracked the germs of this gregarine into the stomach of the mosquito larva, where after an intracellular stage of short duration, and which was not quite satisfactorily made out, it became a large, free, actively moving gregarine. At maturity the adult gregarines crawled out of the stomach and into the Malpighian tubes, along which they crept towards the cæcal end. There, with or without conjugation, they encapsuled themselves and generated in the interior of their capsules multitudes of pseudo-navicellæ. At maturity, which was attained at the nympha stage of the insect, or a little later in the perfect insect, the capsule ruptured liberating the pseudo-navicellæ in such numbers that they sometimes seemed to completely fill, and even to distend, the lumen of the Malpighian tubes. Many of the pseudo-navicellæ escaped in the fæces of the nympha, others were carried away by the mosquito when it emerged, and were emitted in the fæces of the insect, sometimes even on to the human skin, while she was in the act of sucking blood. As mentioned, the development of the gregarine was sometimes effected so rapidly that numerous pseudo-navicellæ were emitted before the nympha stage of the mosquito was concluded, so that it was a common thing to find the empty nympha pelts thickly sprinkled over with multitudes of tiny gregarine germs. As we have seen that the mosquito larva devours its own and its neighbour's exuviæ, we can readily understand how, once gregarines have been introduced into a pool of water, the larval mosquitos in that particular pool become infected by the parasite. But as the mature mosquito when she quits her nympha husk also contains numerous gregarines, we can also understand how she, too, carries the infection with her, scattering it about the country in her fæces or conveying it to any other pool where she may lay her eggs and afterwards die. Her body is then devoured by her progeny or by any other mosquito larvæ that already chance to be in the pool. Along with her body, of course, the larvæ swallow any gregarine germs it may contain if they have not already been picked up by the larvæ when feeding on the mud at the bottom of the pool. Does not this little story of the gregarine indicate the way, or a way, in which that other mosquito sporozoon—the plasmodium malariæ—multiplies? Does it not indicate how this parasite, in which man is so much interested, passes from mosquito to larva, from larva to mosquito, in never-ending series? Does it not indicate how the plasmodium disease of mosquitos spreads from pool to pool and is scattered broadcast about the country, and does it not indicate how it may get back to man again?

DIFFUSION OF THE PLASMODIUM BY THE MOSQUITO.

We can readily understand how the mosquito-bred plasmodium may be swallowed by man in water as so many disease germs are, and we can readily understand how it may be inhaled in dust. Mosquito-haunted pools dry up. The plasmodia in the larvæ, and those that have been scattered about in the water, finding themselves stranded by the drought, and so placed in a condition unfavourable for development, pass into a resting stage, just as they do when by quinine or other means man is rendered temporarily unsuited for their active life. They may, probably do, become encysted as so many of the protozoa do in similar circumstances. The dried sediment of the pool, blown about by winds and currents of air, is inhaled by man, and so the plasmodium may find its way back again to the host from whom its ancestors had, perhaps, started generations back. I would conjecture that on entering man and on entering the larval mosquito it develops into a flagellated spore similar to the flagellated spore into which it develops in the mosquito's stomach. In this way it would be enabled to penetrate the mucous surfaces and get into the human blood cell. Many mosquitos die without getting to water; all male mosquitos die without seeking water. They may die far from water, blown away, as we know mosquitos are, by high winds. The bodies of such mosquitos fall in time on the soil and decompose. The parasites they contained pass into the resting stage, and in this form they also may be carried into the air by currents, or be blown about as dust, or be shaken out by man when he disturbs the soil. In this way the plasmodium may find a route back to man again. In this way, too, we may explain the occurrence of those cases of malaria which apparently, though not really, are unconnected with swamp or stagnant water. Such is my view of the life-history of the malaria parasite, and the *rôle* of the mosquito with regard to it, and of the process by which man becomes infected. In my concluding lecture I shall bring forward further evidence for the truth of this theory, and endeavour to answer certain objections which have been, or which may be, brought against it.

A CASE OF DOUBLE UTERUS WITH SUBMUCOUS FIBROID TUMOUR.

BY ARTHUR H. N. LEWERS, M.D. LOND.,
OBSTETRIC PHYSICIAN TO THE LONDON HOSPITAL.

A MARRIED woman, thirty-eight years of age, was sent to me by Mr. Snowman and admitted into the London Hospital under my care on Oct. 16th, 1895. She had been married fourteen years, but had never been pregnant. The catamenia appeared when she was fifteen, but she was not regular till she was twenty-one, several months intervening at times between the periods. Since she was twenty-one she had been quite regular every four weeks till seven months ago, but nearly always had some pain during menstruation. She complained that for the last seven months she had been losing too much at her periods, and for the last six months there had been a constant red discharge between the periods, but till recently she could still tell when the menstrual periods occurred. For the last six months she had passed clots during menstruation, but had never done so previously. The dysmenorrhœa had been relieved during the last seven months by lying down, but this is said to have had no effect in lessening the excessive flow. She had had some pain and smarting during micturition ever since her marriage, but this had been worse during the last seven months. She had been losing flesh during the last six months. On vaginal examination the uterus was found considerably enlarged. A curious falciform fold of mucous membrane (F) was felt at the upper part of the vagina running from before backwards and from right to left. The sound passed four and a half inches. At this time it was not recognised that there was a second vaginal portion, as the finger passed to the right of the fold just described. After disinfecting the vagina a laminaria tent, specially rendered aseptic by prolonged immersion in absolute alcohol containing 1 per cent. of corrosive sublimate, was inserted into the cervix (A)—that on the right side—on Oct. 16th at 5 P.M., a strip of iodoform gauze being packed below the tent to keep it in position. The next day at 2 P.M. an anæsthetic was given, and the patient placed in the lithotomy position. The iodoform gauze was removed and a vaginal douche of perchloride of mercury (1 in 1000) given. The upper part of the vagina and the cervix into which the tent had been inserted were then thoroughly exposed with Sims's speculum and retractor. It was then seen that there was a second vaginal portion (B) to the left side. It was perfectly well formed, but slightly smaller than the vaginal portion on the right side. The falciform fold of vaginal mucous membrane (F) passed between the two vaginal portions, running, as already mentioned, from before backwards and slightly from right to left. The tent was now removed from the right

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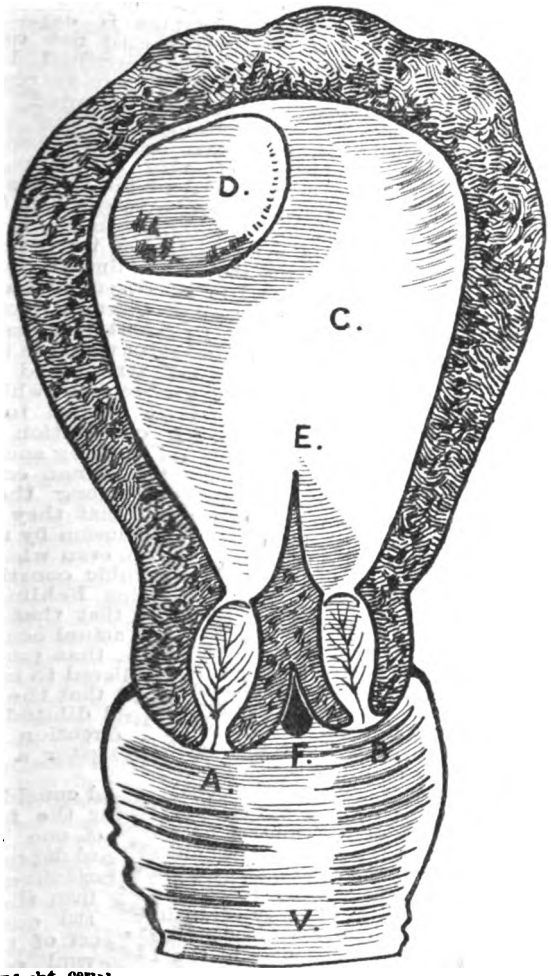
cervix. The uterine sound was passed into each cervix and passed the same distance on each side—viz., four and a half inches. The right cervix (A) was now further dilated by means of Hegar's dilators till the finger could be passed through it into the uterus. The submucous fibroid (D), the size of a large walnut, was felt attached at the fundus and to the right side. It was seized with polypus forceps and twisted till it seemed loose, but it could not be brought away till the cervix was further dilated up to the size of No. 24 Hegar. The condition of the uterus was then examined more closely. The uterine sound was passed into the left cervix and the finger into the cervix on the right



A, Right cervix. B, Left cervix. C, Common cavity for the body of the uterus. D, Submucous fibroid. E, Remains of septum just above the internal os on each side. F, Falciform fold of vaginal mucous membrane. V, Vagina.

side through which the fibroid tumour had just been removed. The condition of things figured in the illustration was then found—that is, the finger felt the sound in the cavity (C) of the body of the uterus, showing that there was a single cavity for the body of the uterus into which led the two separate cervical canals. There was a sort of spur (E) felt a little above the level of the internal os. Bimanually the upper part of the uterus was felt to be slightly irregular, there being three distinct prominences, as figured in the illustration, most probably due to the presence of sub-peritoneal fibroids. The patient made the uneventful recovery usual nowadays after operations of this nature. The notes of this case were taken by Dr. G. H. Cowen, resident accoucheur and Mr. P. K. Nix, clinical clerk, and revised by myself.

Remarks.—Cases of double uterus are very rare. In nearly eleven years' experience at the London Hospital I have only seen two examples, one the case just recorded in which there was a submucous fibroid tumour, and the other a case of double uterus with double hæmatometra and complete absence of the vagina, on which I operated successfully some weeks ago, and which I propose to record fully on another occasion. Probably a case of double uterus of this variety affected with fibroid tumours has been met with before, but I have not come across any record of such a case, and if cases of double uterus are admittedly rare a case of double uterus complicated with fibroid tumour must be a great deal rarer. It will be observed that there was only one cavity for the body of the uterus, the septum originally present there having disappeared; and that the double condition persisted from a little above the level of the internal os downwards on each side. More generally in cases of double uterus it is the upper part of the septum between the uteri that persists, while that corresponding to the cervical region disappears.

Harley-street, W.

SELF-POISONING IN HEART DISEASE: ITS RELATION TO THE SCHOTT METHODS OF TREATMENT.[1]

BY W. BEZLY THORNE, M.D. ST. AND.

BEFORE entering in detail on the subject it may be well, as a preliminary step, to endeavour to define what it is proposed to include in the terms "self-poisoning" and "heart disease." By "self-poisoning" I refer, for the purpose of the present paper, to that particular dyscrasia which is due to depraved digestion, a polluted blood-stream, abnormal metabolism, and inadequate excretion. With regard to "heart disease," I may be permitted to say that it would be difficult to find, in the whole range of medical terminology, an expression of more indefinite meaning. In the lay mind it is associated with such grave valvular lesions as expose the subject to an insecurity of life which is without reprieve or remedy. Not infrequently it is employed by members of the medical profession, possibly in deference to the popular interpretation, in a sense scarcely less restricted, and thus it may happen that the subject of a valvular affection, in itself so insignificant as to involve no material increase of life risk, is pronounced to be afflicted with "heart disease," while another, in whom processes more insidious and more dangerous to life are making unimpeded advance, is said to have "nothing organically wrong." I make, therefore, no further excuse for employing the word "disease" to designate such conditions as involve deviations from those which may properly be regarded as pertaining to an organ in a state of average health. I shall perhaps make my meaning clearer if I state, without further preface, that of some five hundred cases presenting impairment of health, in which abnormal conditions of the heart and bloodvessels have played a leading part, I have recorded in 90 per cent. collateral symptoms which point to serious and prolonged contamination of the blood-stream. The subjects may be fat or lean, florid or pale, but underlying their facial aspect they one and all present, in greater or less degree, that feature which Eustace Smith long ago, in connexion with atrophic diseases of children, denominated the "café-au-lait complexion." On inquiry it is elicited that their stools are not infrequently, perhaps habitually, deficient in biliary colouring matter. The fæces are generally found to emit an acid odour and, when not too dry to respond to the test, to redden blue litmus paper. The urine on cooling deposits either amorphous urates or crystals of uric acid; the latter are occasionally so small and so colourless as to be not readily apparent. The distal articular extremity of the index metacarpal bone presents on the radial side an osteoid deposit of the size of a split pea or of greater size and prominence. Other bones, especially the external aspect of the carpal extremity of the ulna, are found to be similarly affected. The arteries are small, and in and after middle age are found to be in a state of undue tension and not infrequently tortuous and otherwise obviously atheromatous. Some give a history of podagra and of other forms of gout and others have suffered one or more accesses of acute rheumatism: the greater part acknowledge to an exceptional liability to so-called "rheumatic" pains. Where

[1] An address delivered before the Leamington Medical Society.

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evidence on the subject is forthcoming it is often found that difficulties of feeding have added to the care of early infant life.

I have already said that one feature which is common to these cases is the occasional or habitual deficiency of biliary colouring matter in the evacuations; and here, I think, we have the clue to a primary and fundamental pathological condition. In treating them we have to take into consideration a chronic, though in some cases frequently latent, catarrh of at least one portion of the digestive tract, involving more or less obstruction of the orifice of the common bile duct, and, therefore, a not infrequent and perhaps habitual deficiency of the important pancreatic and biliary juices supplied to the passing products of a gastric digestion which itself has been vitiated by the teeming bacteria of fermentation which proliferate in the depraved mucus with which it is always, in greater or less degree, encumbered. Speaking as a clinical observer, it would be difficult for me to say how far in most cases the catarrhal condition extends along the course of the small intestine; but certain it is that in some, and those by far the more grave, it involves the colon. In such we find that, instead of normally formed or constipated fæcal evacuations. one or more, sometimes several, fragmentary or liquid stools are daily evacuated. What, then, is the chemico-physiological condition with which we are confronted as regards the digestive functions in a large proportion of the subjects of cardio-vascular disease? Reasonable inference and clinical observation alike point to an excess of gastro-intestinal fermentation, and the conversion of more or less of the ingested food into products which, transmitted into the blood-stream, exercise a definitely toxic influence on the tissues of the organs of circulation and on the structures which it should supply throughout the body with material for nutrition and repair. If we proceed to inquire what are the effects produced on the cardio-vascular system we may expect to meet with the following train of results: long-sustained contraction of the arterial channels, more especially of the remoter ramifications, inducing sooner or later structural change; increased peripheral resistance and later an excess of labour thrown on the left ventricle; a slowly diminishing coronary supply of nutritive blood; the effects of impeded circulation creeping backwards through the pulmonary circuit to the chambers of the right side; veins gorged with a languid stream which is charged with an undue proportion of depraved and toxic constituents; a steadily increasing transfer of the vital stream from the area of life on the arterial side to the venous store of used and unregenerated blood; and venous congestion of the great viscera, including special organs and secreting glands, with consecutive impairment of function, and more especially of the pelvic organs, involving in the male prostatic congestion, in the female a similar condition of the uterus and its appendages, and in both the hæmorrhoidal system of vessels with the well-known attendant consequences. Indeed, it would be impossible to refer in detail to the multifarious consequences of the condition to which I have alluded without engaging in an unnecessary enumeration of an almost endless series of morbid conditions with which we are all only too familiar as following on deviations of the circulatory system from a condition of health and efficiency. Nevertheless, there are some which claim special attention. I will make no more than a passing allusion to the malnutrition of the nerve centres and the languor of mind and body and depression of spirits which of necessity ensue, adding heavily to the general burden of life, and pass on to refer to changes specially affecting cardio-vascular structures themselves.

I have drawn attention to the fact that the general diminution of the arterial lumen must affect the coronary circulation no less than that of other parts. It is no less obvious that the prolonged strain thrown on the heart walls must tend to put them on the stretch to such a degree as further to impede the flow of blood through their nutrient vessels. But the evil series does not stop at this point. Not only do the vasa vasorum and the interstitial nutrient spaces become involved in their turn, but the dyscrasic condition of the blood has a direct influence on the now vulnerable elements of the vascular coats. Deterioration and degeneration of structure must inevitably follow. In view of such a combination of morbid influences it is not difficult to account for the changes which are included under the denomination of atheroma, and for the several forms of chronic and acute inflammation to which the heart, the arteries, and the veins are subject. More especially would I draw attention to the processes which lead to aneurysm of the heart and great vessels, and to deforming and ulcerative lesions of the valves, as well as to endocardial inflammation, with their often formidable consequences; and I cannot refrain from pausing to ask whether the affection known as rheumatic fever, the cause and incidence of which have been the subject of so much learned investigation, may not be an acute and culminating incident, determined by relatively adventitious circumstances, in a long protracted course of self-poisoning in which uric acid has played an important part. If such be the case the frequent and occasionally exclusive incidence of that disease on the structure of the heart would be accounted for.

Before passing from the enumeration of the changes which the dyscrasia under consideration is capable of inducing in the organs of circulation I must not omit to allude to a condition which has been described by Dr. Savill under the name of "Arterial Hypermyotrophy."[2] He has pointed out that in a number of aged people death ensues on a slowly progressive failure of the functions of organic life, which can only be accounted for by the general occlusion of the arterioles, leading in its turn to slow degeneration of the tissues which they supply, and, further, that microscopic examination of those small vessels actually reveals changes in the muscular tunic which are due to a hypertrophy of its constituent fibres, which tends at one and the same time to obliterate the vascular lumen and to proceed to a degeneration of the redundant muscular tissue essentially different from that which is characteristic of atheroma. I cannot help suspecting that the long-sustained effort of contraction which is imposed on those tissues by the transmission of toxic blood may be mainly responsible for the morbid process to which Dr. Savill has called attention. I do not pretend to define exactly the identity and the chemical constitution of the noxious substances which are capable of working such wide spread and multifarious mischief in the human economy. Urea and its derivatives are doubtless among the chief offenders, but there is reason to believe that they do not stand alone. I am partly led to that conclusion by the fact that the urine of the subjects in question, even when freed by deposition from a great part of its lithic constituents, possesses a notable power of decolourising Fehling's test solution; and when it is borne in mind that that special quality often precedes in point of time the actual occurrence of glycosuria and follows its subsidence, that pancreatic inhibition and duodenal indigestion are believed to influence the incidence of the diabetic condition, and that the great part of glycosuric subjects present weak and dilated hearts, I cannot resist the conviction that in the direction which I have indicated there lies before the investigator a field of research of almost fascinating interest.

Returning now to the subject of our special consideration we have before us a condition presenting the following principal factors: a catarrhal condition of one or more regions of the digestive tract, an excessive and depraved process of bacterial fermentation inducing putrefactive change and hyper-acidity, the passage of toxines from the gastro-intestinal system into the blood-stream, and consecutive functional and organic changes in the tissues of the heart and bloodvessels. If, therefore, those several conditions form in many cases of disease consistent parts of a whole and stand to each other in the relation of cause and effect it remains to inquire how they can best be met by the various therapeutic resources at present available. It would seem to be obvious that the objects to be kept in view are the relief and prevention of catarrhal conditions, the correction of bacterial fermentation, the avoidance of fermentable articles of diet, intestinal antisepsis, the promotion of adequate elimination, the opening up of the arterial channels and the repair of cardiac and vascular structures. If those ends be attained the purification of the blood-stream and the establishment of a better habit of metabolism must follow as a natural consequence. That pharmaceutical agents may be employed with great advantage will at once be admitted by the most ardent advocates of physical treatment, and among those which are calculated to exercise a beneficial influence on the digestive mucous surfaces preparations of bismuth stand first in order. My experience leads me to place most reliance on the salicylate as possessing special bactericidal and antiseptic properties and being

[2] Vide paper read in the Section of Pathology of the British Medical Association meeting at Bournemouth, 1891.

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peculiarly well adapted to meet the exigencies of the numerous cases in which uric acid plays a leading part. Its efficacy is often enhanced by combination with small doses of one of the alkaline iodides. Next in order come mercury and its salts. Grey powder, in doses of a fourth of a grain, administered in due relation to meals, is well adapted to those cases in which there is a tendency to a too free action of the bowel, while still smaller doses of calomel, and the solution of the bichloride, or fractional doses of the biniodide, are indicated where, the catarrh being limited to the gastro-duodenal region, the evacuations are either normally formed or hard and scybalous. Guaiacol, resorcin, and thiocamf, enclosed in gelatine capsules and taken with a drink of warm water from two and a half to three hours after meals, do much to correct intestinal putrefaction, especially if there be loose and offensive stools. I have already stated that such cases are among the more grave. The colon is endowed with great powers of absorption, and if it be allowed to transmit liquid or semi-liquid matter highly charged with toxines serious contamination of the blood-stream must ensue. In long-standing cases chronic desquamative catarrh, and even ulceration, present formidable obstacles to successful treatment. I have not met with one such in which there has not been a weak, dilated, and presumably degenerated heart, with or without valvular lesion and more or less tachycardia. The saline laxatives are remedies of unquestionable value, but they are double-edged weapons; and if their exhibition be unduly prolonged they tend to promote the catarrh which it should be one of our main objects to relieve and forestall. Generally speaking, they are of greatest use where the catarrh is mainly limited to the gastro-duodenal tract; but, on the other hand, they are not only tolerated but often prove to be actually curative in colic cases, if taken at the spring from which they rise as natural mineral waters. Thus ingested they exercise a powerful influence on the kidneys, the great eliminators of waste and depraved products, and possess advantages over pharmaceutically prepared remedies which it would be difficult either to explain or exaggerate. A measure of primary importance, in the prevention of fermentive decomposition, is the elimination from the dietary of those substances which most readily undergo fermentation—namely, the carbohydrates and hydrocarbons. That precaution observed, no fear need be entertained of aggravating the uric acid diathesis by means of nitrogenous food. Uric acid in many instances readily disappears under the influence of a diet of diabetic severity. Of all agents, however, water is perhaps the most efficacious and at the same time the most harmless. It should be taken at a moderate heat, in quantities of from one-third to half a pint, when gastric digestion has been mainly completed and the chyme is actively passing through the pylorus.

Such measures and means as I have briefly enumerated may generally be relied on to effect a notable purification of the blood-stream and to promote the elimination of noxious substances from the tissues. Even if those objects be only partially attained diminution of arterial tension is rapidly ensured, and, peripheral resistance being relieved, not only is the work of the heart reduced, but the processes of tissue poisoning and of consequent degeneration are checked in proportion. But of all the therapeutic agencies which can be called into requisition for the relief of the class of cases under consideration, the methods of treatment which owe their origin and elaboration to August and Theodor Schott stand for every reason first and foremost. So much has recently been said and written on the subject that it is now scarcely necessary to enter on a detailed description of that mode of treatment. It consists, as is well known, of the administration of mineral baths and of physical exercises. Nevertheless, as some misapprehension appears to exist I may be allowed to say, with reference to the exercises, that the Schott method does not merely consist in causing the patient to execute certain movements which call his muscles into play. The essence of the system is that the efforts of the individual under treatment should be so regulated and timed as to produce no fatigue or sense of distress depending on incoördination of the functions of breathing and circulation; and that, whether baths or exercises be employed, they should be so regulated as never to overtax what, for want of a better expression, I may designate the patient's power of reaction. That condition will not have been observed if the rate of the pulse be increased or the volume of its wave diminished as the result of either proceeding. The effects produced by both baths and exercises are in most respects identical. The force of the myocardial contractions is increased, and simultaneously, if not antecedently, the arterial capacity expands, tension is reduced, the volume and force of the pulse rise, and as a general rule its frequency diminishes, provided that the precautionary conditions just referred to are observed. Such important results are obtained in a space of time which is not to be measured by weeks or days, but by minutes. The chambers of the heart close on themselves at each contraction, inspiration becomes deeper, and loaded veins, released from the burden of back-pressure, discharge their contents through the right heart and the pulmonary circuit into the expanding arteries. The quickened capillary circulation imparts a glow of warmth and colour to the surface and the extremities, a healthy stimulus is imparted to the general metabolism, and relief is afforded to congested viscera throughout the body. Not many days or hours pass before the kidneys resume full activity of function, and free diuresis ensues with all its tissue-purging effects. The relief brought to the abdominal and portal veins and the increasing supply of arterial blood impart a healthy impetus to the entire process of digestion. Another effect of these revivifying changes which as far as I am aware has not hitherto been recorded is that the skin in many cases resumes its physiological office after, it may be, years of abeyance, and patients who have been long unconscious of perspiration begin to experience a welcome sense of relief from a normal moisture of the surface. I think that it may safely be asserted that no drug or combination of drugs known to medical science is capable of effecting so immediate and far-reaching a health-restoring revolution in the human economy or one so perfectly adapted to correct the depraving and destructive form of self-poisoning which I have endeavoured briefly to portray, and which, if my suggestion be founded on fact, is so intimately associated with disabling functional and organic changes in the heart and bloodvessels. The best evidence of the truth of my contention is that recourse to the physical treatment is so often followed by the repair of cardio-vascular tissue, the restoration of heart competence even in spite of irreparable valvular deformity, the rehabilitation of the functions of digestion and elimination, the return of health as evidenced among other signs by renewed mental and physical power, and by the rapid resolution of adventitious products of many acute and chronic diseases to which special organs and the tissues generally are liable. On the other hand, I am far from wishing, as I have already sufficiently indicated, to cast doubt on the value of pharmaceutical treatment. It has its office—one with which no physician can afford to dispense—more especially in guarding the subjects of the diseases to which reference has been made from the danger of relapse. A judicious combination of drug treatment with the physical methods of the Schott system and with well-devised instruction as to how to eat, drink, and live is, happily, capable of endowing many, who have lost hope and are hastening on the road to dissolution, with years of unlooked-for healthy and happy life.

Upper Brook-street, W.

AN INQUIRY INTO

THE PHYSIOLOGY OF THE ACTION OF THERMAL SALINE BATHS AND RESISTANCE EXERCISES IN THE TREATMENT OF CHRONIC HEART DISEASE

(THE NAUHEIM AND SCHOTT SYSTEMS).[1]

BY R. F. C. LEITH, M.B., B.Sc., M.A., F.R.C.P. EDIN., &c.,

LECTURER ON PATHOLOGY, SCHOOL OF MEDICINE OF THE ROYAL COLLEGES, EDINBURGH, AND SCHOOL OF MEDICINE FOR WOMEN, EDINBURGH; PATHOLOGIST TO THE ROYAL INFIRMARY, EDINBURGH; EXAMINER IN PATHOLOGY, UNIVERSITY OF GLASGOW, AND ROYAL COLLEGE OF PHYSICIANS, EDINBURGH, ETC.

THIS method of treating chronic heart disease, commonly called in this country "the Schott System," in recognition of its practical discoverers and exponents, was lately brought into prominence in England by Dr. Bezly Thorne and is now attracting much attention. It is claimed for it that it is applicable to an immense number of cases which hardly improve if at all under rest and ordinary cardiac tonics and

[1] A paper read before the Edinburgh Medico-Chirurgical Society, Jan. 15th, 1896.

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yet are not strong enough to be able to adopt the more vigorous measures of the Oertel system; that, in fact, it has discovered a path of safety intermediate between the Scylla of over-inaction and the Charybdis of over-exertion, which leads gradually and surely to the re-establishment of sound cardiac and bodily health; that its mildness renders it almost universally suitable and that its beneficence and power, when employed by skilful hands, are capable of accomplishing results alike comforting, reassuring, and delightful to the patient and gratifying to the physician. If such claims can be substantiated, if they are found to rest upon a sure foundation, and if they are supported by sound physiological and clinical proof, they will most assuredly be welcomed by us with gladness. We have been taught by experience, however, to walk warily. We recall to mind that such sanguine views, amounting in many cases to exaggeration, are common to every new health resort, whether it be a spa more remarkable than all others for the unpleasantness of its waters, or an air cure in which the credulous go barefooted upon the dewy grass or snowy pavements, or the whey cure where they swill fermented milk to a perilous stage of repletion, or the grape cure where they eat of the juicy fruit to a degree far beyond the dictates of common sense or the laws of digestion; and all this, too, be it remembered, under the specialist's direction. Health resorts are as much subject to fashion as dress or music or bicycling or serving a dinner, and the medical specialist is too apt to follow the prevailing craze of the time and recommend the latest favourite spa. The fascination of trying a new remedy and the certainty of pleasing his patient tempt him, and he saves argument and his time, already perhaps overtaxed, by adopting what is often the obvious wish of his patient. A particular "Kurort" may thus gain a reputation far above its merits. There is a perfect library of literature on spas and other places that possess in baths, waters, or climate those sovereign cures of which sooner or later the majority of mankind are in search. There is scarcely a disease, from *ennui* to gout, which has not its appropriate waters, saline and sulphurous, earthy and ferruginous, alkaline and acidulated, indifferent and uncharacterised; and the cautious and critical mind lends a very guarded ear to claims coming from sources so liable to exaggeration and over-pretension. Bad Nauheim claims to possess in its warm saline carbonated waters a sovereign remedy for chronic heart disease, and its praises are voiced by thousands of the laity and its claims supported by medical men of more or less eminence in nearly every country in Europe. There are the many writings of the two brothers Schott and of Bezly Thorne, and the papers of the two Broadbents, of Babcock, of Israel, of Moellier, of Groedel, of Saundby, and others, all testifying more or less strongly in their favour. They have, however, mainly devoted themselves to an account of the waters and the resistance exercises, the methods of use, their effects, their artificial reproduction at home and the *rationale* of their action, on the assumption or conviction that the claims advanced are well founded. This seems to me to be neither satisfactory nor scientific, it is surely better to subject these claims themselves to criticism and to test them in every way possible. Balneological methods in the past have largely erred in a want of exactness of technique and physiological grounds for their action. The first objection can hardly be urged against the Schott system, as the composition of the baths, their method of administration, the conditions under which they are to be taken, and the precautions to be adopted, have all been given with much care and precision by Dr. Aug. Schott, and subsequent writers on the continent and in this country have all adhered more or less closely to his views. The same may be said of the exercises. When we come, however, to study the physiological explanations of their action we have hardly the same cause for satisfaction. The results of their action are grouped as follows.

1. *Subjective phenomena.*—1. A sensation of cold followed by warmth. The patient lies in the bath without movement, and the sensation of slight cold experienced on entering is soon replaced by one of gentle warmth, which lasts during the remainder of the bath. The same experience occurs, but to a slighter degree, with each succeeding bath, so that the patient is able comfortably to bear a gradually diminishing temperature until he reaches the coldest baths usually administered—viz., the carbonated natural springs about 86° F. In these the gentle tingling warm sensation all over the skin is particularly marked. 2. A sense of oppression in the chest. This gradually becomes less marked after the patient has been some little time in the bath, and usually diminishes in subsequent baths until it may become hardly noticeable. 3. An increased power of sleep. It may become more regular, constant, and refreshing, and troublesome insomnia may even disappear. 4. Disappearance of unpleasant sensations. If the patient has formerly suffered from palpitation, cardiac pains, breathlessness, or headache he frequently finds that they disappear. He is further conscious of an increased sense of well-being; he is lighter in spirits and fitter for work, and generally expresses himself as feeling much better.

2. *Objective phenomena.*—1. An increase in strength and diminution in rate of the pulse. The extent of the change varies in different cases. A diminution of from six to ten beats in a minute is a fairly common average, and while the increase of strength is never great it is easily appreciated by the fingers. Other changes are also occasionally observed—e.g., irregularities in strength and rhythm may be modified and may even disappear. 2. Slight slowing of respiration. This usually occurs to the extent of two to three respirations per minute during the action of the remedial agent. 3. A diminution in size of the heart. This is the main apparent result, though inspection, palpation, and auscultation may also give evidence of an improved heart tone. Thus a systolic mitral or tricuspid murmur may disappear and a presystolic mitral reappear or, the cardiac sounds may improve and the apex beat become more forcible; but all these changes occur to a slight degree only and sink into comparative insignificance beside the great diminution which takes place in the area of deep percussion dulness in the cardiac region. The extent of this diminution varies in different cases, but from half to three-quarters of an inch all round is quite common, and in many cases it even amounts to one inch or more. It is held that this diminution of the area of cardiac dulness indicates a corresponding decrease in the size of the heart.

I have now made many observations upon the working of the system, having studied it carefully at Nauheim last summer along with my friend Dr. Frederick Thorne of Leamington, and afterwards by means of the exercises and artificial baths at home. The number of cases already reported on by different writers as having benefited by the treatment is already very great; thus Benecke in 1872 gives 56, Aug. Schott, writing in 1885, gives over 300, and his brother Theodor Schott in 1894 gives about 4700, while Bezly Thorne and others have also added considerably to the number. I cannot claim to possess so lengthened a period of experience of the system as some of these writers, nor do I think it is necessary to enable the inquirer to test it thoroughly or to judge of its merits or demerits with impartiality. My experience has enabled me to study several examples of different classes of cases which may be conveniently grouped as follows.

I. CASES OF FUNCTIONAL DISEASE.

1. *Post-influenzal.*—The symptoms due to the legacy of influenza varied considerably; there was bodily and mental weakness, pain or discomfort referable to the cardiac region or its neighbourhood, giddiness, headache, palpitation, or gastro-intestinal derangement. The pulse was generally fast and soft and sometimes irregular. The area of percussion dulness in the cardiac region was apparently mostly increased in varying degree, being in a few cases considerably so. In none was a murmur present.

2 *Overstrain.*—They were apparently referable to overwork or mental worry. In some it appeared to be an acutely produced condition as the result of too vigorous bodily exercise after a prolonged period of rest. In others it seemed to be of more gradual production.

3. *Neurotic.*—This is a variable group; in some the disturbance was probably of primary central origin, as in people of high-strung sensitive natures, sometimes with an undue perception of their own heart's action; while in others it was apparently referable to an abuse of tobacco, and in others to a peripheral stimulation of the vagus from a severe gastric or intestinal catarrh which was the beginning of the illness.

4. *Anæmic &c.*—They showed general deterioration of the system, anæmia, loss of energy so characteristic of prolonged town life, &c.

The symptoms and signs in these three latter groups were somewhat similar to those of the first, breathlessness even amounting to dyspnœa or a sense of suffocation on exertion being more frequently complained of. Tenderness in the region of the liver, inability to lie on the right side, disturbed sleep, fulness of the veins at the root of the neck, pulsation in

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the second left interspace just outside of the pulmonary area, or in the third, fourth, or fifth intercostal spaces immediately to the left of the sternum, or in the epigastrium, and systolic murmurs were occasionally observed. The general effect of the therapeutic agents, baths and exercises, upon the majority of these cases was much the same. Their general condition was improved, many of the troublesome symptoms disappearing altogether. After each administration the average diminution in the pulse was 6 to 7 beats, the maximum being 15 and the minimum 0. The average reduction in the area of cardiac dulness in the fourth interspace was apparently from five-eighths to three-quarters of an inch, the maximum being one and one-quarter inches and the minimum practically *nil*. The transverse diameter of this area in these cases varied between four and seven inches. The reduction was generally greatest on the right side; thus in two cases of seven inches there was an apparent diminution of nearly one inch on the right side (from three to two inches) and of about a quarter of an inch on the left side.

II.—CASES OF ORGANIC DISEASE.

1. *Valvular lesions*.—Some were of rheumatic and others of apparently spontaneous origin. In one case the disease had been in existence for over ten years and in another for over twenty, and some of them were fairly good illustrations of the evils of venous congestions, œdema, &c., which follow upon loss of compensation. The average diminution in the pulse was eight beats and reduction in the area of cardiac dulness from one-half to five-eighths of an inch measured in the fourth interspace. The primary extent of the dulness in this interspace varied between seven and a half and five inches, and the left side was, if anything, more diminished than the right. The patients were generally improved in health. One, a medical man with mitral disease, wrote to me about five weeks after the end of his course saying that he was better than he had been for years, and again about a month ago to the effect that the improvement had partly disappeared, but that he was still better than before his course of treatment.

2. *Congenital heart disease*.—I have seen patients who have greatly improved under treatment, but never anything to indicate a disappearance of the primary lesion.

III.—CASES OF SIMPLE ANGINA PECTORIS AND GRAVES'S DISEASE.

I have hardly seen a sufficient number of these cases to enable me to give definite data, but generally speaking I am able to corroborate the experience of others that improvement does occur in some of these cases.

My experience of the system has undoubtedly very favourably impressed me. It has enabled me to corroborate its claims to be regarded as a therapeutical agent of considerable value; but while doing so in general I am unable to do so in all its details or to support some of the most striking claims it has put forward. Before proceeding to discuss the pulse and heart phenomena which I may glance for a moment at the subjective excellent evidence in its support. The patient's own notions regarding his progress generally receive our due attention. If he believes he is recovering he is not so very often wrong. I was much struck by the remark made by a scientific friend, a learned and deservedly eminent professor who was himself undergoing the treatment, in the course of a conversation upon the method, to the effect that medical men might not like or approve of it until they understood it, but that at present the unfortunate patients themselves did like it, as they found themselves benefited by it. They have good reason for this if they can point, as they often can, to the disappearance of symptoms which may have formerly made their lives miserable. We accept those statements and value them, but it is a different thing when we come to base physiological arguments upon them. Thus it may be true, nay, it is true, as I have myself verified in my own person, that the first sensation of cold on entering the baths is quickly replaced by one of warmth, especially in the carbonated waters, but it does not necessarily follow, as so many suppose, that this is due to a definite nervous stimulation. Indeed, the primary difficulty of relying upon sensations experienced under water at once occurs to us. The personal factor, which depends largely upon the state of the circulation, the activity of the sweat secretion, the excitability of the nervous system, and the habits and customs of the patient, has to be carefully taken into account, and it is next to impossible to properly appreciate any factor so variable. What is cold to one man is warm to another. I may mention the remark I heard made by a distinguished colleague in Edinburgh, in the course of a conversation upon the value of a cold bath in the morning, as a somewhat striking illustration. In referring to his own habit of taking a cold bath all the year round, he said he always filled his bath three-quarters full from the cold tap and then lay down and remained in it until he got warm. It would hardly be wise for us to advise all our patients to follow this Spartan example. I shall defer for a little the further consideration of the influence of the temperature, pressure, and CO_2 of the water upon the vascular and nervous mechanisms of the body, and pass on at once to the objective phenomena.

In referring to the objective phenomena I have already pointed out the important part played by percussion in estimating the effects of the treatment. Indeed, it is customary to refer to the diminution observed in the area of cardiac dulness after each application as an indication of the progress made by the patient, and charts have been freely published under the conviction that they truly represent the area occupied by the heart before and after treatment. I have never been able to convince myself that this is really the case. There are too many difficulties in the way. In the first place I do not believe that percussion of the heart can be made with anything like sufficient accuracy to meet the requirements of this assertion. I was much impressed with the difficulties I have frequently met with in outlining the cardiac area. In some cases it seemed, in part at any rate, easy enough; in others it was impossible to come nearer than an approximate guess. This is especially the case on the right side and in the upper part of the sternum. I am certain that the experience of others will bear me out in this. Indeed, when working, as I was many times privileged to do, along with other and skilled clinicians, I have observed the same uncertainty in them, and it was the rule and not the exception to find considerable variations of opinion as to the exact cardiac boundaries in any individual case. I had often previously experienced this difficulty in ordinary clinical work, but it had not impressed me so strongly as it now did, when percussion had to be made so frequently and played such an important part in the diagnosis, prognosis, and progress of the cases. I was led to pay special attention to it. I outlined the heart by percussion in a great many cases on the cadaver and compared this area with that actually occupied by the heart. The cases selected were representative of the different ages, different thicknesses of the thoracic wall, and depth of cavity. I found the percussion outlines to be almost invariably nearly accurate, the different characters of chest, &c., presenting no real difficulty. Extensive emphysema of the lungs or cases of considerably dilated right heart where it was covered deeply by lung did, however, present some difficulty, especially on the right side, the percussion line erring sometimes as much as an inch to two inches. Ordinary percussion difficulties must, therefore, be chiefly due to conditions prevailing during life. So far as we can see these ought to be one or more of the following factors: the movements of the heart itself, of the lungs, of the stomach and liver, the vibrations of the sternum and the elasticity of the other tissues, or those characters peculiar in some way to their vitality and so far unknown to us. The ordinary systole and diastole of the heart are so rapid and short-lived that they cannot really affect percussion. By taking proper precautions the influence of the stomach and liver can be readily eliminated. The vibrations peculiar to the sternum, and those, if any, attributable to the other tissues, while they materially alter the percussion note and make its correct appreciation more difficult, can hardly be held to change much during any moderate interval of time, at any rate. There remain, then, apparently, only the movements of the lungs. Anyone can readily satisfy himself that they may materially alter the area of cardiac dulness. I have made several observations on this point in healthy adults and have found wide variations. I have found the area to be reduced by nearly one-fourth in its transverse diameter in the fourth interspace by directing the individual to breathe more deeply than usual for five minutes continuously. There are considerable individual variations, depending upon the configuration of the chest, the respiratory habit of the patient, and perhaps the size of the lungs themselves. In some even a few deep inspirations or a single one materially diminish the area. I am of course speaking of the deep cardiac dulness, and yet no one would for a moment contend that these differences represented

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actual diminutions in the size of the heart. If these observations be correct it follows that percussion cardiac areas lose their reliability as indices of the size of the organ unless always obtained under precisely similar conditions of respiration and lung expansion. Trivial actions—e.g., a few minutes' gentle exercise, smoking a cigarette, even change of posture—seemed to have an appreciable influence. I need not, therefore, point out how difficult it is to secure such conditions; indeed, I found very considerable variations in percussion of the same healthy individuals on each successive day always under what I judged to be similar circumstances. Some apparently showed little variation, others a good deal. I had the same experience when I tested them at different times upon the same day. Lastly, I compared the results obtained in the same individuals (four healthy males) several times within fifteen minutes, they sitting the while on an easy chair, and found that two of them varied decidedly nearly every time, and the other two slightly. I carefully marked the position of the apex beat each time in all the cases and found that in most it remained fairly stationary, although the area of cardiac dulness sometimes showed a good deal of change, whilst in others there was a slight degree of displacement amounting even to half an inch. I was considerably puzzled by these results, as they seemed to indicate changes other than those attributable to the lungs, and, if so, they could only be referred to the heart itself. It looks as if the heart were capable of considerable movements other than its ordinary rhythmic contractions which affect the apex less than any other part of it. When discussing this question with Dr. George Balfour he mentioned a paper by Heitler of Vienna as likely to interest me on the Percussion Conditions in the Normal Heart. He afterwards kindly sent it to me. It contains the results of much careful observation. He dwells upon the very varying boundaries given by writers for the right, left, and upper boundaries of the healthy heart obtained by percussion, and points out that the wide differences of opinion probably arose from the difficulties in the way of obtaining accurate percussion areas. He gives the results of his own observations upon healthy adults. He holds that the area of cardiac dulness is constantly varying, that as the observer percusses over the anatomical cardiac area from without inwards or in the opposite direction or vertically, he finds the dulness disappearing under his finger to reappear again immediately; that any spot in this area is at one time dull and the next clear; that, in short, the whole cardiac dulness disappears and reappears with peculiar regularity. It appears mostly four times, seldomer three to five times, in a minute and fades away gradually. Its duration is from two to five or six seconds. He attributes these disappearances to actual changes of volume in the heart which do not affect the pulse, and therefore holds that to be of any value percussion of the heart must be always made during the phases of full expansion. Those observations of Heitler explain the variations met with by me in normal individuals, and I am inclined to place considerable value upon them. Since reading his paper I have made a number of further observations upon the percussion areas of the healthy heart, and while I cannot say that I have been able to fully verify his statements I have obtained results that I am really unable to explain except upon some such hypothesis as he has put forward. The difficulties experienced in percussion of the normal heart become greater and not smaller when we have to deal with dilated hearts. I do not deny that they may be fairly successfully overcome in some cases in defining the left border when we have a palpable apex beat to help us, and also in approximately outlining the base; but they can very rarely be so where the right border is concerned. Its increased distance from the anterior wall of the chest and increased lung covering serve to increase our difficulties. When we take into account all the possible sources of error in such cases we naturally hesitate about placing much reliance upon cardiac areas as mapped out by percussion. I would not have it inferred that percussion of the heart is useless in all cases. It ought always to be diligently practised, and if every care be taken we may, in many cases at any rate, arrive at a fairly accurate estimate of its average size, but I feel compelled to deprecate the practice of speaking of the heart as an organ accurately outlinable at all times by percussion. If this be true, as I believe it to be, it must have an important bearing upon the contention that there is an actual diminution in the size of a dilated heart after a single bath or after a single *séance* of the exercises. There appears generally to be a diminution in the area of cardiac dulness; my own experience fully verifies this, but I have never been able to accept that this was really due to a decrease in the size of the heart. A diminution of one inch to one inch and a half all round—i.e., of two to three inches in transverse diameter—has been noticed in many cases; and if we try to consider what this means for such an organ as the heart we find it still harder to admit that this is possible in the space of a comparatively small number of minutes. Dr. G. V. Poore has strongly emphasised this difficulty. As the diminution in size is supposed to last for only an hour or so it seems *a priori* hardly possible that such great differences in the size of a sensitive organ like the heart could possibly occur within such short intervals of time without giving rise to serious symptoms referable to the heart and brain.

How is the diminution in the area of cardiac dulness to be accounted for if it be not due to a decrease in the size of the heart? The most obvious suggestion is a greater expansion of the lungs, and Dr. Poore has already advanced and supported it by observations made upon his own person. I am convinced from my own observations at Nauheim and at home that the respirations are rendered both fuller and deeper by both the baths and the exercises. This is, indeed, allowed by Dr. Bezly Thorne and other authorities. The sense of oppression in the chest experienced by the bather of itself naturally leads to this result, apart from any direct stimulation of the respiratory centre which may be present. As for the exercises, it is to be remembered that they are, with few exceptions, taken in the standing posture, and increased respiratory action is one of the marked results. The patient has, as a rule, to be cautioned to keep his mouth open and breathe easily. Increased lung expansion is thus brought about and a greater area of the heart is covered. But if the lung expands anteriorly, why not also in other directions? And it is freely admitted that the lower limits of the lung, as determined by percussion, remain pretty much the same. Suppose we grant that this line is always pretty accurately determinable and stationary, it seems to me to favour our contention rather than otherwise. The body is completely immersed in the bath, the head alone remaining above the water, and it naturally follows from its deeper immersion that there is more pressure upon the abdomen than upon the thorax. Dr. Poore has already pointed this out and I quite agree with him, and am unable to understand Dr. Bowles' contention to the contrary. The abdominal walls are, indeed, markedly contracted and the abdominal cavity markedly lessened. I specially noticed this in my first Nauheim bath, and have since found it to be the general rule. This must press the liver upwards and so constitute an opposing force to the expansion of the lungs downwards. Not only may the fixity of the line of the diaphragm be thus explained, but it may determine a still greater lung expansion in the way of least resistance—viz., anteriorly. The apex of the lung may also to a certain extent participate; but as expansion is generally much less free in this direction it is natural that percussion does not usually make out much change here. It may still be argued, however, that the change in the position of the apex beat yet remains to be accounted for—viz., its displacement inwards and upwards. It is not unusual to find this amount to as much as half an inch or thereabouts, and a full inch has been frequently recorded. It is to be remembered, however, that the apex beat is not caused by the apex of the heart, but by a part of the anterior wall some little distance from it, the precise part varying somewhat according to several circumstances. The increased expansion of the left lung may materially affect this—first, by covering over a little more of its anterior surface; and, secondly, by perhaps bodily displacing it inwards towards the middle line. I have tested the influence of the latter factor in the cadaver by inflating the left lung through its bronchus. Moderate expansion displaced the whole heart considerably over towards the right, the apex being the most movable and the base the least. When both lungs were inflated at the same time the displacement was less marked, but it was always decided, and a very moderate expansion indeed sufficed to effect a displacement inwards of one inch in extent. This displacement was always at the same time upwards, owing to the natural curve of the arch of the diaphragm. On all grounds, then, I fear that we cannot admit that the diminution in the area of cardiac dulness met with in the application of the Schott system corresponds to a decrease in the size of the heart. It

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is quite possible, nay, probable, that some decrease does take place and gradually establishes itself in the course of the treatment, but it is not of daily occurrence; nor is it to be measured accurately by ordinary percussion, and to trust to this as fully as is at present being done is not only to mislead our patients but ourselves and to shut our eyes to the solution of the problem upon other lines. The evidence derived from auscultation and occasionally also from inspection and palpation is more reliable. The heart sounds generally became louder, clearer, and more decided in character. This does not necessarily mean increased cardiac tone, for I doubt if we are able to assert that weak sounds in themselves mean a weak heart and *vice versâ;* and, moreover, loud, clear, and sharp sounds are frequently heard in dilated hearts, and are therefore consistent with an augmentation instead of a diminution of the dilatation. On the whole, however, I think we may say that the heart sounds point to the gradual establishment of an improved condition of heart action. This is still further indicated by the occasional disappearance of a functional systolic or the reappearance of a presystolic mitral murmur. I have only seen one case treated by this method in which there was visible pulsation in the third, fourth, and fifth interspaces in the left side close to the sternum. It gradually disappeared after about four weeks; but it ought to have disappeared and reappeared daily for some time, at any rate, if the large temporary decreases in the size of the heart had actually occurred. I notice that Wethered says he saw epigastric pulsation almost disappear after fifteen baths spread over a period of about twenty days, but I do not gather that he observed it after any single application. It is not to be forgotten, too, that apparent spontaneous diminutions in dilated hearts are frequently observed.

(To be continued.)

FIFTEEN MONTHS' PRACTICE OF THE SCHOTT METHODS FOR THE TREATMENT OF CHRONIC AFFECTIONS OF THE HEART.

BY ERNEST KINGSCOTE, M.B., L.R.C.S. EDIN.,
LATE HONORARY SURGEON TO THE SALISBURY INFIRMARY.

SUFFICIENT has been written on the Schott treatment of chronic heart disease to render any apology for the introduction of the subject unnecessary. Results are beginning to be accumulated in this country, and to those who have carefully investigated the question it is very evident that this treatment is destined to take a place at the head of the standard remedies for chronic heart affections. The following remarks are suggested entirely from personal observation of a great number of cases during the last fifteen months, so that any value that may be attached to them will depend on the fact of their having been suggested by personal observation. There are two factors, however, which will prevent the rapid adoption of the Schott methods. These are: (1) the absolute incredulity of medical men as to the effects of the treatment on the size of the heart, and (2) the difficulty of fully understanding the method from mere description. With regard to the former of these factors the effects on the dilated heart, as also on the rate and quality of the pulse, are so extraordinary that anyone may well be excused for at first distrusting them.

I was called to Germany in consultation with Dr. Theodor Schott of Nauheim in November, 1894, and as the exigencies of the case necessitated my remaining a fortnight with him I was enabled to get a thorough introduction to the subject. Through Dr. Schott's kindness I saw the effects of the treatment demonstrated, and on Nov. 13th a chart of the effects produced on the heart of a male patient was made by him in my presence. I was also able on my return to England to avail myself of the services of one of his trained "exercisers" from Nauheim for all the cases now described. To the courtesy of Dr. Bezly Thorne I owe my introduction to his little work on the subject, published by J. & A. Churchill at the beginning of 1895, and those who wish to acquire a comprehensive and concise idea of the treatment will do well to obtain a copy. Since November, 1894, I have practised the treatment largely, but have delayed publishing any cases until assured of the permanency of their cure. The good effect is being maintained in all the cases except in that of No. 1, who was unable to take a complete course of the treatment owing to my absence in Egypt in the autumn of last year.

Roughly speaking, the treatment consists essentially of "exercises with resistance" and chemical baths containing carbonic acid gas and certain salts in imitation of the Nauheim springs. Its effect is to raise the blood pressure in the arteries and thus to relieve some of the stress on the surcharged heart, enabling it to contract with greater vigour and so drive the blood to the periphery. I have seen a dilated heart diminish its boundaries as much as two inches in all directions in fifteen minutes under the treatment, again expanding, however, in a few hours, but not quite to the same extent. And in one instance—a female aged fifty-four years and married, whom I saw in collaboration with Dr. Oliver—the apex of the dilated heart was on Jan. 12th, 1896, brought in as much as three inches in thirty minutes. At the present date this patient has very much improved, the apex beat being half an inch outside the nipple line. The reiteration of the treatment acts as a continual stimulus on the dilated organ, and the effects, though at first evanescent, gradually become permanent. As the quantity of blood in the arteries is increased the coronary arteries carry more nutriment to the cardiac wall, and it is probably in part owing to this that under the treatment compensating hypertrophy is produced in valvular incompetence associated with ulcerative and other changes. During this process internal congestions are relieved, and this fact is to be borne in mind in studying the following cases. A great degree of accuracy in percussion is obviously of paramount importance, and the physician should be able accurately to define the anatomical boundaries of the heart even though overlapped by lung substance.[1] Given this accuracy the boundaries of the heart may be mapped out on the skin with a dermographic pencil before and after the treatment, and tracings of them may be taken which enable the progress of the cure to be observed in a delightfully mechanical manner. Further, in nearly all cases the apex beat may be felt with the finger either in the intercostal spaces or under the margin of a rib, and so the reduction of the dilated heart may be still more satisfactorily demonstrated.

This selection of cases has been made (1) because sufficient time has elapsed to enable us to judge of the lasting effect of the treatment, and (2) because the symptoms are diverse, although in each case they seem to have been due to defective circulation dependent upon more or less dilatation of the heart requiring in Cases 1 and 4 extreme care in the determination of the cardiac boundaries. The abatement of the symptoms also was simultaneous with the reduction of the dilatations. In Case 1 the diminution of the albuminuria corresponded with the increase of volume of the pulse. In Case 2 the diminution of tension was most noteworthy. The retinæ were congested and there was an appearance of cupping of the discs which combined with the ocular tension to produce symptoms resembling those of glaucoma. It is true the patient is astigmatic, but the symptoms disappeared under the carbonic acid bath treatment before proper glasses were procured, and the long rest in the dark room would have relieved eye symptoms had they been due entirely to astigmatism. Case 5 is remarkable for the rapid and permanent disappearance of the systolic bruit. I only saw the patient once in my consulting-room, where she underwent a fifteen minutes' course of "exercises with resistance" by Dr. Schott's trained "exerciser." I am indebted to the kindness of Dr. Morrice of Salisbury for his notes of the case. Case 3 needs no comment except that in the middle of the treatment the patient persisted in skating in violation of orders and had a fall, which reproduced the dilatation, but it subsequently disappeared under treatment. Case 4 was in a pitiable condition, being unable to walk without inducing cyanosis, and being affected with chronic general congestion of the mucous membranes resulting in frequent ulcerations at various parts of the alimentary canal. This patient had lived on meat essence and such-like easily digested food for a period of two years before coming under my hands, being unable to take any solids whatever without producing distressing diarrhœa and pain. She is now able to walk about freely and takes ordinary diet with impunity.

1 Herzkrankheiten, von Dr. Th. Schott: Real-Encyklopädie der gesammten Heilkunde.

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Speaking generally and in the light of clinical experience, the cases which have derived the greatest benefit from the Schott treatment under my hands have been gouty hearts; fatty and fat hearts; post-rheumatic dilatations, with or without valvular disease, and especially dilatations following on frequent attacks of influenza; anæmia; obesity; "tobacco hearts"; chronic congestions of internal organs, such as the liver, kidneys, lungs, pelvic viscera, and alimentary canal; and that large class of cases with sub-mammary pain which so often get shelved as hysterical.[2] It is also noteworthy that in the generality of the cases the complexion is very much improved. I believe, and have abundantly proved by experience—e.g., Case 3—that many so-called hysterical cases if carefully diagnosed will be found to have dilated hearts. These patients suffer from symptoms such as sub-mammary pain, shortness of breath, coldness of the extremities, sudden pain in the left side and other parts of the chest, indigestion, constipation, and catchings of breath, but the obstinate incredulity of their friends and medical attendants entails much delay before their actual condition is finally made out should they be fortunate enough not to fall into the hands of a quack and sink into hopeless invalidism.

The amount of space taken up in the thorax by the enlarged heart suggests a train of thought which may perchance prove highly instructive in dealing with certain obscure symptoms, among which the following may be instanced as direct effects of pressure. 1. Mid-sternal pain from pressure against the sternum. 2. Suffocation from pressure on lungs, vagus, and diaphragm. 3. Brachial pain, tingling, numbness, and coldness from pressure on the plexus and axillary artery in the space between the first rib and clavicle. This may happen, the shoulder being fixed, from the dilated heart pressing the ribs outwards and upwards. I have been a sufferer from brachial neuritis for six months under the care of Dr. Gowers, and frequently found that on fixing the shoulders, and therefore the clavicle, and taking a deep inspiration pain was immediately felt where the branches of the plexus pass under the clavicle. 4. Pain from neuritis of the intercostals from intermittent pressure of the dilated heart. 5. Referred pain in distant parts.[3] 6. Pressure on vagus causing (*a*) intermittent action of the heart by alternately stimulating and paralysing the cardiac inhibitory fibres; (*b*) gastric disorders of various kinds; and (*c*) cough, &c., from stimulation of the recurrent laryngeal nerves; in one case severe pain in either ear supervened without any local origin, and subsided when the dilated heart was reduced, although it had previously resisted every sort of local application, suggesting interference with Arnold's nerve. 7. Interference with nutrition through pressure on the thoracic duct. 8. Obscure vascular conditions such as angina pectoris, possibly due to pressure on the sympathetic system exaggerating the arterial tone. I found the heart considerably dilated in a case of true angina pectoris in which the patient complained of a severe thoracic fulness with pain in the back and left arm before each attack (Case 7). 9. Pain between the shoulders is a very common symptom in considerable dilatations and may be proved to be partly due to backward pressure of the heart by the pain leaving the back and establishing itself in the præcordial region on the assumption of the prone position. 10. That submammary pain is often due to pressure of the cardiac apex against the ribs and intercostals is proved by the shifting of the pain correspondingly to the change in the position of the apex and to its disappearance on the reduction of the heart to the normal size. I have seen all of these symptoms yield to the Schott treatment under my hands, not excepting those of true angina pectoris, and in reply to those who have found the methods unsuccessful and even harmful I can only say that such has not been my experience, and that either they have imperfectly grasped the *rationale* of the treatment or they have been unfortunate in their selection of cases. Acute cases and cases of stenosis should obviously be avoided.

To Dr. Herschell's deprecatory remarks on the treatment, published in THE LANCET of Feb. 15th, I should reply as follows: 1. It is quite possible and even easy for an expert to percuss out the anatomical boundaries of the heart. Dr. Theodor Schott has demonstrated this by mapping out the thoracic contents and abdominal viscera on the dead body by means of percussion and marking the outlines with a dermographic pencil, after which long skewers were passed round the margins through the body and the boundaries were found to be correct in every instance. 2. The amount of water employed for the baths in Dr. Herschell's cases does not seem to me to have been sufficient, as a patient cannot be completely immersed up to the neck in fifteen gallons of water. Fifty gallons do not make a large bath. 3. In Cases 1 and 2 cited by Dr. Herschell the treatment seems to me to have been contra-indicated, as in Case 1 there was "commencing consolidation at the left apex," and it would not be advisable to drive an increased amount of blood through the lesion. In Case 2 there was "obstruction." 4. I agree entirely with Dr. Herschell in condemning a routine practice of the treatment. It requires reasonably high diagnostic powers and great discrimination in the selection of cases, otherwise it is quite possible to inflict injury on a patient. The undertaking of such cases by unqualified persons is quite inadmissible.

CASE 1.—This was a male patient fifty years of age, who had for many years suffered from chronic albuminuria with all its debilitating train of symptoms. The quantity of albumin varied from time to time according to the patient's state of health, but was never absent, and no treatment seemed to be of any avail. There were no tube casts or other evidence of actual renal disease, although the case looked like one of chronic Bright's disease. In 1893 I took him to Sir William Broadbent, who corroborated the diagnosis and gave as his opinion that the albuminuria was due to defective circulation. On Dec. 11th, 1894, I found a slight dilatation of the heart, and in five days, by means only of "exercises with resistance," the albuminuria was considerably reduced. In July, 1895, a three weeks' course of the baths containing carbonic acid reduced the albuminuria to the vanishing point.

CASE 2.—This patient was an unmarried female twenty-eight years of age who had suffered from five attacks of influenza. She complained of coldness in and pain down the left arm, tingling and persistent coldness of the feet, shortness of breath and giddiness on going up-hill, sleeplessness, muscular tremors, severe headache, "blue and yellow moons and stars" on shutting her eyes, the objects last looked upon being reproduced in bright colours in the darkness. In her head and eyes there was a sensation of burning heat; her eyeballs were strained and aching; the tension in both eyes was said to be + 3, and double iridectomy was suggested. She had been kept eight weeks in a dark room, and fourteen blisters had been applied, together with bandages on the eyes and the application of ice. I found the heart considerably dilated, the apex beat being two inches outside the nipple line. After a course of six weeks of the Schott baths the tension in the eyes and heart boundaries became normal, and the pain ceased, together with all the above-mentioned symptoms. On one occasion, when her pulse was observed to be 120 and thready, it fell to 70 after ten minutes' immersion in a strongly charged bath. In her case, however, the exercises were not tolerated.

CASE 3.—This patient was an unmarried female twenty-six years of age who had suffered from influenza several times, and was under my treatment in December, 1894. She complained of breathlessness on going up-hill, pain in the left side, faintness on exertion, and marked palpitation, waking up suddenly at night with a cry, pain in the left side, with a feeling of suffocation and pain down the left arm. The apex beat was extremely tender to the touch and was situated three inches outside the nipple line. After seventeen baths, combined with "exercises with resistance," the apex beat and heart boundaries became normal and the above symptoms disappeared.

CASE 4.—This patient was an unmarried female fifty years of age and of very full habit. Her pulse was 115 and very feeble; the apex beat was two inches outside the nipple line. She suffered from chronic diarrhœa for a number of years with frequent ulcerations down the alimentary tract, chronic indigestion, præcordial pain, pain down the left arm, cyanosis and breathlessness on exertion, blueness of the extremities and mitral regurgitation. She had lived on meat essence and such-like foods for a number of years. After a six weeks' course of baths and "exercises with resistance" her pulse fell to 78, her heart was reduced to normal dimensions, the diarrhœa became of rare occurrence, her weight was considerably reduced, she regained walking power, and was able to take ordinary diet. In this case the exercises had to be abandoned as they produced excitement.

[2] Vide Dr. Burney Yeo's Manual of Medical Treatment, published by Cassell in 1891, chapter on Cardiac Pain.

[3] Vide Mr. Treves' Surgical Anatomy.

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CASE 5.—I am indebted to Dr. Morrice of Salisbury for the notes of this case. The patient, who was a married woman aged fifty years leading an active life and occupied in work involving much wear and tear, applied for medical advice on Oct. 23rd, 1894. When she got up that morning she felt faint and had tingling in her hands and feet; she also complained of palpitation and indigestion. On examination a loud systolic bruit was heard over the præcordial region and a moderate degree of cardiac dilatation was discovered. On Dec. 19th she submitted rather unwillingly to undergo a series of Schott's movements under my direction. A most marked effect was produced upon the character of the cardiac impulse and sounds. The thumping character of the former disappeared, the bruit became almost imperceptible, and the sounds altogether more natural. On Dec. 29th the præcordial region was carefully examined, but no bruit was heard, although the first sound was prolonged, and up to January, 1896, there had been no further attack of dilatation.

CASE 6.—This patient was a married woman fifty-four years of age, who had been attacked by influenza several times and was in a condition of such extreme debility that on one occasion, having gone down two steps to a room, she was totally unable to get back. She suffered from coldness of the extremities, blueness of the lips on the slightest exertion, indigestion, pain down the arm and thorax, pain in the back, and other symptoms of extensive dilatation of the heart. After five weeks' treatment she walked a distance of two miles (one mile up-hill), her digestion was good, the pains were nearly gone, the colour returned to her face, and she feels quite well.

CASE 7.—This patient was an unmarried woman forty-four years of age who was on Nov. 8th, 1895, taken ill with angina pectoris and has had six attacks. I saw her in Somersetshire on Jan. 11th, 1896, in consultation with Dr. Marshall of Clifton and Mr. White of Nailsea. The prognosis was then most grave. On deep percussion we discovered a large amount of cardiac dilatation. Three exercises carefully administered by me brought in the apex to the extent of one and a half inches without inconvenience to the patient. Her nurse came to me to learn the exercises, and the patient began to improve under them from that day. On Feb. 22nd she arrived in Salisbury, accompanied by Mr. White and the nurse, to undergo bath treatment. She is now able to walk and to eat ordinary diet. Her heart is permanently reduced one and a half inches at the apex, and both her pulse and general condition are very much improved.

Salisbury.

RESULTS OF MAJOR AMPUTATIONS

TREATED ANTISEPTICALLY IN THE ROYAL INFIRMARY, NEWCASTLE-UPON-TYNE, DURING THE YEAR 1895, AND FOR A PERIOD OF SEVENTEEN YEARS AND NINE MONTHS.

BY FREDERICK PAGE, M.D. EDIN., M.R.C.S. ENG.
SURGEON TO THE ROYAL INFIRMARY NEWCASTLE-UPON-TYNE, ETC.

DURING the year 1895, 68 major amputations were performed in the Royal Infirmary, Newcastle-upon-Tyne, upon 66 patients. Sixty-four patients recovered and 2 died—a mortality of only 3 per cent. Twenty-three of the amputations were for injury. In one case a man lost a thigh and a leg, in another a child lost a foot, an arm, and the greater part of the other hand. Of the 23 patients 1 only died and 22 recovered—a mortality of 4·3 per cent. For disease, amputation was resorted to 43 times, and 1 patient died—a mortality of 2·3 per cent. Table 1 gives, in a tabular form, the results of the year.

The precise causes of death were:—1. A woman aged sixty-six years died two weeks after amputation of the leg at the seat of election. She was admitted with a compound fracture of both bones of the leg of five weeks' duration and extensive bed sores. She was septic, being a pauper and a drunkard. She remained in a condition of septic intoxication, but survived amputation for two weeks and died from exhaustion due to blood poisoning. 2. A man aged fifty-five years died some twelve hours after amputation at the hip-joint for a large sarcomatous tumour of the upper part of the femur from the direct result of the operation. It will be observed that one of the deaths arose from blood poisoning, but the patient was admitted suffering from blood poisoning. Amputation failed to save her life. The nature of the operation fully accounts for the second death. Amputation at the hip-joint upon a man aged fifty-five years, already much enfeebled by severe pain from a rapidly growing periosteal sarcoma of the femur, proved fatal in a few hours, as it was not unlikely to do. The death was unavoidable.

TABLE 1.—*Major Amputations treated Antiseptically in the Royal Infirmary, Newcastle-upon-Tyne, during the year 1895.*

—	Injury.			Disease.			Total.
	No.	Recovered.	Died.	No.	Recovered.	Died.	
Double amputations ...	2	2	—	—	—	—	2
Hip-joint	—	—	—	4	3	1	4
Thigh	2	2	—	18	18	—	20
Knee-joint	—	—	—	—	—	—	—
Leg	6	5	1	9	9	—	15
Ankle-joint	3	3	—	11	11	—	14
Shoulder-joint	3	3	—	—	—	—	3
Arm	3	3	—	1	1	—	4
Forearm	4	4	—	—	—	—	4
Wrist	—	—	—	—	—	—	—
	23	22	1	43	42	1	66

Both the cases of double amputation deserve a word of comment. One was a man aged thirty-four years, a labourer at the Consett Ironworks. He was admitted suffering from compound fracture of both legs, fracture of the skull, and from a large lacerated wound of the right chest. His condition was very desperate, for he had come a distance of fifteen miles by rail in addition to a short journey in a cart. The right leg was removed at the seat of election, the left a little above the knee. During the amputation two pints of hot saline solution were injected into the median basilic vein of the left arm. The other case was that of a girl aged twelve years admitted soon after she had been run over by a tramcar. It was found necessary to amputate through the right upper arm, to remove the left foot at the ankle-joint, and the greater part of the left hand. She had lost a good deal of blood, and was much collapsed on admission. During the operation a hot saline solution was injected into a vein of the arm. Both these patients recovered, and in the opinion of the surgeon who treated them life was in each case saved by the transfusion. In one other instance a similar transfusion was resorted to during amputation at the hip-joint, the patient being a boy much reduced by long-continued suppuration. He also recovered.

Table 2 gives the results of the amputations performed in the Royal Infirmary for a period of thirteen years—viz, from Jan. 1st, 1883, to Dec. 31st, 1895. The number is 778, with 63 deaths—a mortality of 8 per cent.; 300 of the amputations were for injury, and 36 died—exactly 12 per cent.; 478 were for disease, and 27 died—5 6 per cent.

TABLE 2.—*Major Amputations treated Antiseptically in the Royal Infirmary, Newcastle-upon-Tyne, from Jan. 1st, 1883, to Dec. 31st, 1895, a period of thirteen years.*

—	Injury.			Disease.			Total.
	No.	Recovered.	Died.	No.	Recovered.	Died.	
Double amputations ...	15	9	6	—	—	—	15
Hip-joint	6	3	3	27	17	10	33
Thigh...	54	41	13	172	162	10	226
Knee-joint	7	7	—	2	2	—	9
Leg	82	74	8	79	76	3	161
Ankle-joint	29	28	1	133	131	2	162
Shoulder-joint	20	19	1	15	14	1	35
Arm	40	37	3	19	18	1	59
Forearm	40	39	1	31	31	—	71
Wrist...	7	7	—	—	—	—	7
	300	264	36	478	451	27	778

Of the 63 deaths which have followed amputation in the

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Royal Infirmary during the last thirteen years, 30 have arisen from shock and loss of blood. During 1895 transfusion was resorted to as a means of counteracting shock and loss of blood on many other occasions besides the three amputations here recorded, and in every case the effect was very striking. Blood poisoning, as a cause of death after amputation, should not arise, and, as a matter of fact, has almost ceased to occur. There is good reason for believing that by the injection of a hot saline solution into the veins the deaths from shock and loss of blood will in the future be considerably reduced and so mortality after amputation will be still further brought down.

From April 1st, 1878, to Dec. 31st, 1895, 938 major amputations were performed and 80 patients died—8·5 per cent.; 365 were for injury—nearly all primary amputations, with 48 deaths—13·1 per cent.; 573 were for disease and 32 patients died—5·5 per cent.

TABLE 3.—*Major Amputations treated Antiseptically in the Royal Infirmary, Newcastle-upon-Tyne, from April 1st, 1878, to Dec. 31st, 1895, a period of seventeen years and nine months.*

—	Injury.			Disease.			Total.
	No.	Recovered.	Died.	No.	Recovered.	Died.	
Double amputations ...	15	9	6	—	—	—	15
Hip-joint	6	3	3	29	17	12	35
Thigh...	70	52	18	209	196	13	279
Knee-joint	10	9	1	6	6	—	16
Leg	102	90	12	103	100	3	205
Ankle-joint	33	32	1	149	147	2	182
Shoulder-joint	23	22	1	17	16	1	40
Arm	51	46	5	25	24	1	76
Forearm	48	47	1	35	35	—	83
Wrist...	7	7	—	—	—	—	7
	365	317	48	573	541	32	938

Newcastle-upon-Tyne.

CEREBRAL MENINGITIS FOLLOWING INFLUENZA.

BY C. BRYAN TOWNSHEND, L.R.C.P. & S. IREL.

THE case recorded under the above heading by Mr. Davies in THE LANCET of Feb. 22nd has interested me very much, as I had two cases of undoubted meningitis following influenza when I practised in Chelsea. I neglected to place them on record at the time, being extremely busy, and can only do so from memory; consequently I cannot give minute details of their progress.

CASE 1.—The patient was a child seven years of age, a healthy, robust little fellow. In February, 1892, I was called to see him, and found him suffering from a smart attack of influenza, severe pains in the head, back, and limbs. He had complete loss of appetite and great prostration. I do not recollect now the temperature, but do recollect that it was higher than I was in the habit of finding in influenza generally. I prescribed bicarbonate of potash and carbonate of ammonia in chloroform water—a favourite treatment of mine in influenza from the very first case I saw—and plenty of liquid nourishment—milk, milk and soda-water, beef-tea, &c. All went well for some three or four days, the little patient improved in every respect, the tongue cleaned, and the pulse and temperature approached normal, until one evening I was sent for hastily to see him as he was "raving and calling out all sorts of nonsense and trying to get out of bed." I went immediately to see him and found a great change had taken place since my morning's visit. He was at first wildly delirious and considerable effort was required to keep him in bed. The next day the delirium had become low and muttering and towards evening he had gradually passed into a state of coma and was in this state when Dr. Whitelaw Bourns saw him with me. He died on the following day, never having regained consciousness.

CASE 2.—The patient was a man aged twenty-four years who had had two attacks of rheumatic fever, the first of which had left mitral incompetence. I attended him in the second attack and on and off afterwards. In 1893 the case under notice occurred. In it the influenza was an ordinary attack of medium severity, but well marked in all the most frequent symptoms of that disease. It was, however, accompanied by more than usual prostration on account of the disease of the heart. I treated him with carbonate of ammonia, bicarbonate of potash, and tincture of digitalis (in five-minim doses). By the end of a week he had made remarkable progress and was rapidly approaching convalescence, when to my surprise I found, on being specially summoned to see him one day, he was complaining of intense pain in his head, all over, and was delirious at intervals, and the temperature, which had become normal, had gone up to 103° F. He rapidly grew worse, until in some twelve hours he was completely comatose and breathing stertorously. He remained in this condition six days, during which time it was a matter of great difficulty to administer a sufficiency of nourisbment, &c. I kept icebags to the head the whole time and gave small quantities of stimulants at frequent intervals. At the end of the six days the breathing became easier, the pulse quieter, and the temperature normal—in short, a general subsidence of all the severer symptoms—and he was able to recognise his relatives who were present. On his first attempt to move it was discovered that his left side was paralysed as regards motion. I found on investigation that there was no appreciable loss of sensation. This partial hemiplegia lasted about a month, when for the first time he got up. The convalescence that followed was long and tedious; nevertheless, in some six months he returned to his business, and succeeded in attending to it wonderfully well considering all things. During his convalescence I prescribed tincture of nux vomica and dilute phosphoric acid alternately with tincture of the perchloride of iron month and month about. The heart acted better with the latter, but I had to discontinue its use occasionally on account of the digestion which was not suited by it.

Highgate.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

FILARIA LOA.

BY FELIX ROTH, M.R.C.S. ENG., L.R.C.P. LOND.,
LATE HOUSE SURGEON, ST. MARY'S HOSPITAL, PADDINGTON, AND DISTRICT MEDICAL OFFICER AT WARRI, NIGER COAST PROTECTORATE.

ON July 14th, 1895, a native Jackrie girl about sixteen years old was sent to me complaining of a worm which was wriggling about the eyes, eyelids, and across the bridge of the nose and which had troubled her for the last two days. This was the first attack she had had, and she also informed me that a number of people in her village complained of the same disease. On examination I noticed a wriggling body about three-quarters of an inch long over the upper left eyelid. As long as it was at rest there was no pain, but when starting on its peregrinations every now and again she would feel a severe pricking sensation which made her scream. I noticed quite plainly that it seemed to travel about just under the skin and looking very much like an atheromatous artery one sees very often over the temples, and I could follow its movement during the time I had the patient under treatment, from July 14th to 16th. I kept the patient close to my quarters and gave orders that I should be called day and night when the worm should begin to move about. On the 14th it started to move across the bridge of the nose just under the skin from the left eyelid to the right one; it then returned again to the former, passed on to the eyeball, getting under the sclerotic, ultimately returning to the eyelid. I noticed that it never crossed the cornea. I cocainised the eye and eyelid with a 4 per cent. solution and cut down over the worm, but only noticed a small black lumen, and

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was unable to grasp the worm, which seemed to be thinner than fine thread. I tried to catch it several times, but never succeeded in doing so. During the evening it was again over the sclerotic, but I was unable to pick it off, although it only seemed to be just under the topmost layer of the same. On the 15th it was moving about in the same place; cocaine was again administered. During the night it moved about still, but the pricking sensation was giving much less annoyance and there was less pain. No trouble was felt on the 16th, and up to the 19th, when I last saw the patient, it had given her no notice of its existence. I therefore concluded it had disappeared.

Since this case I have had two other patients; I treated them with cocaine. After two or three days' application they did not return to see me—most probably they were both cured. The natives inform me that for the treatment amongst themselves they place small pieces of raw onion all round the eye; I have often noticed this in passing through different villages. This drives the worm away or keeps it to the sclerotic, where it is picked off by a needle. I have many times tried to get the natives to bring me a specimen, but even rewards seem to have had no effect. I rather believe the filaria loa passes down the nasal duct and is either swallowed or spat out.

Warri, West Africa.

CASE OF DILATATION OF THE STOMACH COMPLICATED BY FATAL TETANY.

By R. HILL BROWN, M.B., C.M. EDIN.

CASES illustrative of this serious complication of dilatation of the stomach have been published by various writers, but the comparative rarity of the condition prompts me to report the following case. This complication was first described by Kussmaul,[1] who attributes it, as in cholera, to a sudden decrease of water in the already dried-up patient which is brought about by vomiting or washing out the stomach. Gerhardt,[2] on the other hand, ascribes it to an auto-intoxication arising from the absorption of the products of decomposition in the stagnating contents of the stomach.

The patient was a married woman aged thirty-six years who had suffered from chronic gastric catarrh for many years. This resulted in atony of the gastric coats and dilatation of the stomach. There was no evidence of cancer or ulcer of the stomach. The typical symptoms of gastrectasis were present and the general nutrition of the patient had suffered greatly. There was considerable emaciation and the skin was pale, dry, and earthy-looking. The lower border of the stomach extended to about midway between the umbilicus and the symphysis pubis. The gastric juice contained about the normal amount of hydrochloric acid. The microscopic examination revealed the presence of immense numbers of bacteria and sarcinæ. About twelve months anterior to the fatal termination the patient had an attack of tetany. With this first attack there was no impairment of consciousness. Four months subsequently she had another attack which was somewhat more severe, the spasmodic condition lasting for nearly two hours. At this time I commenced to wash out the stomach daily, and under this treatment the gastric condition improved greatly. Unfortunately, however, the attacks of tetany became more frequent and severe, recurring about every month. The spasm affected the arms chiefly. The thumb was bent into the palm of the hand. The fingers were adducted and flexed at the metacarpo-phalangeal and first inter-phalangeal joints, the terminal joints being extended. The wrists and elbows were flexed and the arms folded over the chest. The knees were drawn up. The extremities were cold, intensely cyanotic, and bedewed with cold sweat. The pupils were widely dilated and did not react to light. During the later attacks the patient was semi-comatose, the breathing was laboured, and the pulse almost imperceptible. The temperature, taken in the axilla, was subnormal. Chloroform inhalations had the effect of cutting short the spasm at once. During the last of these attacks the patient sank into a state of deep coma from which she never recovered.

In this case the systematic washing out of the stomach was accompanied by the progressive advance of the tetany, so that there is the possibility of a causal connexion between the two. Assuming that the tetany is due to an auto-intoxication washing out the stomach should have had quite the opposite effect. Perhaps, as Müller[3] suggests, the tetany is the effect of a reflex process proceeding from the stomach, somewhat analogous to the familiar instance of convulsions and intestinal parasites. The existence of tetany in any case of dilatation of the stomach must be regarded as a sign of grave import, for the majority of the reported cases have terminated fatally.

East Dulwich.

[1] Deutsche Archiv für Klinische Medicin, Band vi.
[2] Berliner Klinische Wochenschrift, 1887, p. 443.
[3] Charité-Annalen, 1888. Band xiii.
[1] Macready: A Treatise on Ruptures.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

TORSION OF OVARIAN PEDICLE IN HERNIAL SAC.

(Under the care of Mr. EDMUND OWEN.)

THE ovary is favourably placed for making its escape by the inguinal canal for a long period during the process of its development. It is met with in a hernial sac associated with intestine or omentum in many cases of inguinal hernia in children; it is unaccompanied by other abdominal contents in about an equal number of instances. The statistics taken from the records of the Truss Society, 1866–90, show a total of 174 herniæ in which the ovary was implicated, and of these 115 were in children under the age of twelve months. In 17 the hernia was double and in 89 in the right side only.[1] The unusual nature of this case is shown by Mr. Owen's reference to the literature on the subject. The symptoms produced by such a twist of the pedicle as here described are evidently the same as those caused by pressure and strangulation at the neck of the sac, and the effect on the ovary is the same. It must be impossible to distinguish one from the other, but as operation is necessary in both this distinction is of the less importance. For the report of this interesting case we are indebted to Mr. G. R. Baldwin, surgical registrar.

On Jan. 28th a female infant aged eleven weeks was sent to the hospital as an urgency by Dr. Nix of Weymouth-street, on account of a hard and tender swelling in the right labium majus. She had been perfectly well until the 26th—that is, until two days previously—when she had vomited twice or thrice after taking food. On the next day, the 27th, she was irritable and she vomited on several occasions, and on that day for the first time the mother discovered a painful swelling in the groin, which gradually increased in size and tenderness. The infant had not been constipated; the vomit was said to be bile-stained. When admitted the infant was unusually quiet, but otherwise appeared in good health. The facial expression was peaceful. A tense swelling was present in the right labium majus and it continued up the inguinal canal as a firm cord-like prolongation. The tumour was rather tender. It was irreducible, dull to percussion, and devoid of impulse when the child cried. The abdomen was quite flaccid and moved freely with respiration. As the infant's general condition was perfectly satisfactory it was thought that operation might well be deferred until the next morning, when Mr. Owen would pay his regular visit. During the night she vomited several times and there was a slight diarrhœa. On the morning of the 29th chloroform was administered and an incision made over the swelling. The operation was exploratory at first, as the nature of the swelling could not be positively determined from digital examination. An incision down to the swelling set free about two drachms of blood-stained fluid which surrounded a very deeply congested and lobulated swelling in a hernial sac. This

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swelling was of about the size of a large peach-stone, and on further examination it proved to be an engorged ovary. The pedicle, formed from the broad ligament containing the Fallopian tube and ovarian vessels, was twisted in a direction opposite to that of a screw near to the ovary. From the twist the pedicle extended to the uterus, a small part of which was dragged into and was protruding through the internal abdominal ring. The pedicle was ligated and divided just above the twist and was returned into the abdomen, the ovary being removed. The wound was closed by silkworm gut sutures and dry dressings were applied. The child made a rapid recovery and was discharged cured on Feb. 7th. Mr. Kellock, the medical superintendent, reported as follows: "The part removed consists of an ovary, Fallopian tube, and parovarium, of which the ovary comprises about two-thirds and the rest one-third of the entire mass. The whole organ is of a blue-black colour, full of dark blood, and, considering the age of the patient, greatly enlarged by the congestion and œdema. The body of the ovary presents a lobulated appearance due to a slight constriction between

Twisted pedicle and engorged ovary. F, Œdematous fimbriæ of Fallopian tube, drawn after the specimen had been lying in spirit.

the outer two-thirds and inner one-third. The Fallopian tube, running along the upper part of the specimen, terminates at the outer end in a well-marked, but œdematous fimbriated extremity, the inner end constituting part of the divided pedicle. The parovarium, situated between the Fallopian tube and the body of the ovary, runs into and terminates in the divided pedicle. But for the presence of the fimbriated extremity of the Fallopian tube the specimen, both in shape and in contour, closely resembles a testis and epididymis."

Remarks by Mr. OWEN.—After careful examination of the swelling before operating I took it to be a tense encysted hydrocele in the canal of Nuck, of which I have seen several examples in little girls. On inspecting the tumour through a short tube, a lighted vesta being held upon the other side, this diagnosis seemed to be confirmed, for the translucence was very obvious, even, as I thought, after making due allowance for the ease with which a strong light can travel across the skin and subcutaneous tissue of a fat child. The only feature of the case which in my mind bore against the correctness of my diagnosis was the fact that the upper end of the swelling was not definitely rounded, as it should be in an encysted hydrocele, and that it seemed to taper off up the inguinal canal. The swelling was evidently not a strangulated hernia, most of the general symptoms being conspicuous by their absence. But it was something of very recent occurrence in the region of an inguinal hernia and it was irreducible. A good many surgeons examined the case and speculated with me on its exact nature; I adhered to my diagnosis and was wrong. It is a comfort, however, to be assured on good authority, as we have been, that the man who makes no mistakes makes nothing else. The diagnosis of the house surgeon, Mr. Templeton, was the nearest; he deemed the case to be one of strangulated hernia of the ovary. But the ovary was not "strangulated," the slender pedicle lying quite loosely in the neck of the sac. Having slipped into the sac, the ovary on its uterine ligament, together with the Fallopian tube and the broad ligament, had all twisted round in what is called a "left-handed coil," and were black from congestion, the part of the pedicle on the uterine side of the twist being visible in the neck of the sac and of normal colour. The right cornu of the uterus was also visible in the sac, as detailed in Mr. Baldwin's notes. The case is specially interesting to me in that it bears a close resemblance to those cases of Torsion of the Spermatic Cord which were reported in THE LANCET of Nov. 18th, 1893, in connexion with a case which had recently been under my care. It has fallen to the lot of most surgeons who have experience with abdominal surgery to find an ovarian tumour twisted on its pedicle and in a condition of potential gangrene—on one occasion I met with such a tumour close beneath the right lobe of the liver. It is not a very extraordinary thing that an ovary which has entered the inguinal canal should get its pedicle twisted. Still, I believe that such cases are quite rare, though ovarian herniæ are often met with in childhood. Mr. Lockwood gave the brief record of a case of twisted ovarian pedicle in the hernial sac of a child[2] in which he was called upon to operate, but in that report the child's age is omitted. If his little patient was under eleven weeks old at the time he performed the operation he has done an ovariotomy at an earlier age than I have.

CITY HOSPITAL NORTH, LIVERPOOL.

ACCIDENTAL RASHES IN TYPHOID AND TYPHUS FEVERS SIMULATING THE RASH OF SCARLET FEVER.

(Under the care of Dr. WILLIAM RUSSELL.)

IN the following cases Dr. Russell draws attention to the occasional occurrence during the course of typhoid and typhus fevers of an erythematous rash which resembles that of scarlet fever, but which is not followed by desquamation or the other sequelæ of that disease. It is well therefore for the practitioner not to be too hasty in giving an opinion as to the character of such an eruption, which appears in no way to affect the prognosis. Murchison[1] alludes to the appearance of herpes and sometimes of bullæ during the course of these fevers. He also mentions urticaria as not uncommon before the crisis or in early convalescence in typhus fever. Young patients were the ones in whom the rashes most commonly occurred. The appearance of the eruption did not exercise any unfavourable influence on the result.

CASE 1.—A man was admitted to hospital on April 25th last who said that he had been ailing for the previous four days with headache, pains in the abdomen, inability to take food, and a feeling of general lassitude. He had no diarrhœa. On admission he presented the characteristic typhoid look of weariness and prostration; his pupils were dilated and the conjunctivæ clear, the tongue was thickly coated with a yellowish fur, and his breath was very offensive. The temperature was 104° F. There were no typhoid spots to be seen. Over the front of the chest and abdomen there was an intense scarlet erythematous rash, disappearing on pressure and reappearing when pressure was removed; it was also apparent on the back and limbs. There was no sore-throat. The rash continued in intensity for twenty-four hours after admission, then it commenced to fade, and two days later it had disappeared. On the afternoon of the 27th two typhoid spots were apparent, one on the abdomen and the other on the back—that is, on the seventh day of the illness. A few days later there was a copious eruption of typhoid spots, followed by profuse and characteristic diarrhœa. The case continued to take a typical typhoid fever course and the patient was discharged from hospital six weeks later.

CASE 2.—A patient was supposed to have been ill nine days on admission; the eruption, diarrhœa, and temperature chart were characteristic of typhoid fever. The temperature did not lapse to normal until the thirty-sixth day of the fever; it then remained normal for ten days, during which time the tongue was clean and the stools formed. The patient was still fed on a milk diet. On the forty-seventh day of the fever there was a rise of temperature to 99·8° F., and there then appeared a scarlet erythematous rash over the front of the chest and abdomen, being slightly marked on the back and limbs. Next day the rash was more intense and on the following day still more so, and by the fifty-fourth day of the illness it had all faded. Then there appeared on the abdomen several typhoid spots—i.e., on the eighth day after the temperature had risen. A characteristic typhoid relapse succeeded, and the temperature reached normal on the

[2] Brit. Med. Jour., Sept. 21st, 1895.

[1] Murchison: Continued Fevers. Edited by Dr. Cayley. 3rd edition.

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sixty-ninth day of the illness. The patient was discharged from hospital three weeks later.

CASE 3.—A patient had been nursing a case of typhus fever and contracted the disease. On admission the eruption was well out and the case took a normal course, the crisis happening on the sixteenth day of the fever. Four days after the temperature became normal, a scarlatiniform rash appeared all over the body, the temperature rose to 103°F., and slight sore-throat was complained of; the rash remained out for two days, and at the expiration of that time the temperature became normal. No desquamation followed.

Remarks by Dr. W. RUSSELL.—The point of interest in the first two cases was the appearance of the erythematous rash, which closely simulated the rash of scarlet fever. Neither of the patients complained of sore-throat, nor was there any typical scarlet fever desquamation. In both cases it will be observed that the rash was premonitory to the typhoid eruption. In the third case the rash closely resembled a scarlet fever erythema, but the history of the case, the temperature, and the early disappearance of the rash and non-desquamation were sufficient to eliminate a diagnosis of scarlet fever. No medicinal or dietetic cause could be connected with the appearance of the rash in any of the cases.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Cystic and Encystic Epitheliomata of the Bladder.—Cystic Tumour of the Bladder.—Exogenous Adenomata of the Thyroid Gland.—Series of Thyroid Cysts and Adenomata.—Acute Nephritis from Oxalic Acid Poisoning.—Sarcoma of the Œsophagus.—Papilloma of the Trachea following Tracheotomy.—Exhibition of Specimens.

AN ordinary meeting of this society was held on March 17th, Mr. GOLDING-BIRD, Vice-President, being in the chair.

Mr. J. H. TARGETT showed some specimens of Cystic Tumours associated with Malignant Disease of the Bladder. The first specimen was taken from a man aged sixty-one, who was admitted to a hospital for a tumour in the right iliac and hypogastric regions with bladder symptoms. During the previous eight months he had suffered from attacks of pyrexia with difficulty in micturition. At the necropsy the sacculus shown in the preparation was filled with foul urine, and the tumour projected like a valve over the orifice of communication between the sacculus and the bladder. The sacculus was thin-walled and was attached to the fundus of the bladder. It measured six inches from side to side and four inches in the antero-posterior plane, and it communicated with the cavity of the bladder by an oval aperture two and a half inches in its chief diameter. The front part of the sacculus was occupied by a friable new growth, which was outside the vesical cavity, but projected over the mouth of the sacculus, and thus partially obstructed it. The convexity of the sacculus was covered with peritoneum and adherent tags of great omentum. The growth was a squamous-celled epithelioma. In this case the sacculus was an ordinary diverticulum of the mucous membrane at the fundus of the bladder, which had become secondarily the seat of malignant disease. The second specimen was taken from a man aged sixty-three, who was admitted for hæmaturia of five months' duration. There was a swelling above the pubes on the left side which extended upwards half way to the umbilicus, but nothing was detected on sounding. At the necropsy the sacculus of the bladder projected three inches above the symphysis pubis. The right non-obstructed kidney was in a state of suppurative nephritis, while the left kidney was atrophied from obstruction but not inflamed. The prostate was moderately enlarged The bladder was found to be affected with a squamous-celled epithelioma. To its left side a large smooth-walled cyst was attached over an area corresponding with that occupied by the growth. The left ureter, vas deferens, and vesicula seminalis, together with the peritoneum, were stripped off the bladder by the enlargement of the cyst. Though in other respects it resembled the ordinary large diverticula of the mucous coat, the wall of the cyst consisted merely of wavy bundles of fibrous tissue without a lining of mucous membrane. The cavity in this case was therefore probably due to distension of the recto-vesical sheath of the bladder by extravasated urine which had escaped through a perforation made by ulceration of the malignant growth in the vesical wall. The prostatic enlargement which existed would tend to increase the intra-vesical pressure and thus to assist in the production of the sacculus. Unlike the preceding case the cystic formation must here be regarded as secondary to the occurrence of the malignant disease. Allusion was made to other specimens in which similar cysts and growths were associated and the demonstration was illustrated by numerous lantern slides of the morbid preparations.

Mr. HURRY FENWICK showed a rare specimen of Diverticulum from an Epitheliomatous Bladder. The diverticulum sprang from the upper part of a male urinary bladder. It had appeared quite suddenly and had projected suprapubically, forming a tumour in that region the size of an ostrich egg. Much difficulty in the diagnosis had been experienced, as it had remained unaltered in volume after the evacuation of the bladder by catheter, and neither rise of temperature nor rigor had been noticed. On post-mortem examination the diverticulum was found filled with pus and urine, and its orifice leading into the apex of the bladder was choked with a mass of epithelioma. The true bladder was covered with similar masses of growth, but the interior of the diverticulum was uninvaded.—Mr. FENWICK also showed a patient with a similar tumour in the suprapubic region upon which he proposed to operate the following day.—Mr. SHATTOCK asked, with regard to the sacculi arising from the summit of the bladder, why these were not urachal cysts?—Mr. TARGETT, in reply, said that he had never seen a urachal cyst larger than a small nut. In three or four cases he had met with apical cysts which were definite sacculi.

Mr. S. G. SHATTOCK showed a specimen of Multiple Exogenous Adenomata of the Thyroid Gland. The parts were removed by Mr. W. H. Battle from the right side of the neck of a man twenty-two years of age. The very unusual character of the specimen consisted in the fact that the mass was a conglomeration of a large number of distinct growths loosely held together by connective tissue. Structurally they presented in part the character of normal thyroid tissue, but in part the gland spaces were distended with multiform epithelial cells and the colloid occurred as collections of discrete droplets lying amid the cell masses. Mr. Shattock discussed the possibility of the tumour being akin in its origin to the compound kidney of the bear, seal, cetacea, &c., but he had been unable to find that such a disposition of thyroid ever obtained in any vertebrate forms. The explanation he held to be that the multiplicity arose from an exogenous formation of adenomata. It was not rare to find adenomata embedded in goitres (endogenous), and in the present specimen sections disclosed all stages between the formation of adenomata at the surface of certain of the growths and their complete isolation, the whole process being parallel with that seen in subperitoneal myomata of the uterus.

Mr. JAMES BERRY showed a series of fifteen specimens of Thyroid Cysts and Adenomata, chiefly from the museums of St. Bartholomew's and the Royal Free Hospitals. The main object of the communication was to show the manner in which certain common and important thyroid cysts were formed—namely, from solid adenomatous nodules by the gradual breaking down and liquefaction of the centre of the nodule. Many of the so-called cysts removed by the operation of enucleation could be shown, if properly prepared by hardening in spirit, to be in reality adenomata. The specimens showed all degrees of transition between the early solid adenoma without any cyst to the almost completely cystic tumour in which mere traces of gland tissue adhering to the inner surface of the cyst wall were all that remained of the original solid adenoma. It was pointed out that cysts formed in this manner were particularly well suited for enucleation, since the cyst wall was usually thick and only loosely embedded in the surrounding thyroid gland tissue. In contra-distinction to these cysts two other specimens were shown of thin-walled smooth cysts with clear straw-coloured contents. These, it was considered, did not belong to the same class and had never contained adenomatous tissue within them.—Mr. BERRY asked Mr. Shattock how far his specimen was artificial—that is, how far the thyroid capsule and accompanying connective tissue had been dissected away from the growths. It should be remembered that when adenomata grew towards the edge of the gland the proper thyroid tissue

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surrounding them gradually became thinned.—Mr. GOLDING-BIRD asked, with regard to two of the cysts Mr. Berry had shown, what was his ground for regarding them as anomalous.—Mr. SHATTOCK, in reply, said that there was practically no dissection of the specimen. Even the small growths lay quite at the surface of the parent mass.—Mr. BERRY, in reply, regarded the cysts as anomalous because the lining of the cysts, being smooth, was in that respect quite unlike the other class of thyroid cysts.

Dr. HALE WHITE brought forward two cases of Acute Nephritis due to Oxalic Acid Poisoning. The first was fatal, apparently from uræmia, six days after the acid had been swallowed. The necropsy revealed acute tubal nephritis, with several minute masses of oxalic crystals in the kidney only visible with a high power. Neither patient showed any œdema, high tension pulse, or hæmaturia, nor did they complain of pain in the loins, although this might have been obscured by the general abdominal pain. The symptoms appeared, judging from these two cases, to be scanty urine—the fatal case had almost complete suppression—and albuminuria. The urine contained granular and epithelial casts, together with calcium oxalate crystals. Both the crystals and the albumin were found in both cases in the first specimen of urine passed after the acid had been swallowed. In the case which recovered the crystals disappeared from the urine in twenty-four hours, the albumin persisted four days and the casts about a week. The quantity of urine gradually increased until on the fifth, sixth, seventh, and eighth days from swallowing the acid much more than normal was passed, and it was pale and of low specific gravity. Seven days after taking the poison this patient passed a quantity of phosphates in his urine, and after this he often passed a considerable quantity of uric acid. In the fatal case the oxalate crystals and the albumin remained in the urine till the end, and the amount of urine passed in twenty-four hours varied between a drachm and four ounces.—Mr. SHATTOCK said that many years ago Dr. Garrod had demonstrated oxalate of lime in the blood in four or five cases of gout. He inquired if in the cases related Dr. Hale White had examined the blood, saliva, or other fluids for the presence of oxalate of lime.—Mr. GOLDING-BIRD referred to the well-known instance of balanitis being produced in boys with long foreskins by the eating of rhubarb tart. This had been shown to be due to a local deposit of oxalate of lime crystals.—Dr. HALE WHITE, in reply, said he had not examined the fluids (except the urine) for oxalate crystals. It was striking how slowly the blood coagulated in these cases.

Dr. CYRIL OGLE showed a specimen of Sarcoma of the Œsophagus. The tumour was a sausage-like mass four inches in length and about an inch and a quarter in diameter, attached by a narrow pedicle to the inside of the œsophagus at about its middle. Beneath the microscope the growth was seen to be a mixed-celled sarcoma, large spindle cells predominating, and growing from the submucous layer of the œsophagus. There were no secondary growths. The patient was aged fifty years and had suffered from increasing difficulty in swallowing for three months. Gastrostomy was performed with the diagnosis of carcinoma of the œsophagus. Reference was made to three other examples of this disease shown to the society, and especially to that of Mr. Targett, which the specimen resembled in constitution and polypoid form. These were the only examples which had been brought forward.—Mr. TARGETT acknowledged that the specimen was precisely like one he had shown. He added that a similar specimen was exhibited by Mr. Stephen Paget last session. The growth was made up of long-spindle cells and proceeded under the mucous membrane at the growing edge.—Mr. W. G. SPENCER suggested that as the growth originated in the lower third of the œsophagus it might be a malignant unstriped myoma. There was such a tumour in Westminster Hospital growing from the intestine.—The specimen was referred to the Morbid Growths Committee.

Dr. CYRIL OGLE likewise showed the Larynx and Trachea of a child who was Tracheotomised for Diphtheria. A month afterwards, the patient, having appeared in perfect health for some time, was discharged from hospital, but was readmitted on the evening of the same day moribund from obstructed breathing. A second tracheotomy was performed but failed to save life. Projecting into the trachea at the level of the cricoid cartilage from the scar of the old wound was a soft, pea-like papilloma attached by a slender pedicle and about half blocking the lumen of the tube. Obstruction was probably caused by catarrhal swelling of the growth and neighbouring parts set up by cold air on leaving the hospital, combined with spasm. There was nothing in the details of the first tracheotomy which would seem to account for the growth at its site.—Mr. W. G. SPENCER thought the growth was not a true papilloma, but a mass of granulation tissue produced by the irritation of the tube.—Mr. SHATTOCK agreed that the growth was most probably a granuloma.—Mr. BERRY asked what was the evidence that the child had suffered from diphtheria. He had seen fatal spasm produced by laryngeal papilloma.—Dr. HALE WHITE regarded the growth as one of granulation tissue. He referred to the case of a man who had suffered from diphtheria afterwards developing peripheral neuritis. He died suddenly, being choked by a small quantity of tea which the partially paralysed larynx was unable to expel.—Mr. GOLDING-BIRD said the growth was one of granulation tissue in connexion with the original wound. He had twice opened up tracheotomy wounds to clear out such granulation tissue.—Dr. OGLE, in reply, said the diagnosis was founded upon the discovery of the Klebs-Löffler bacillus. The child was in hospital for a month and had had no paralysis.

The following card specimens were shown:—

Mr. SHATTOCK: Saponified Necrotic Area in a Lipoma of the Thigh.

Mr. DOUGLAS DREW: Cured Aneurysm of the External Iliac Artery.

Dr. ROLLESTON: Epitheliomatous Tumour of the Ear and Lip from the same patient.

Mr. EDMUNDS: Microscopical Sections of the Thyroid Gland—(*a*) of a Dog after Partial Thyroidectomy; and (*b*) of Graves's Disease.

CLINICAL SOCIETY OF LONDON.

Lymph Scrotum and Lymph Varix.—Subcortical Tumour of the Brain treated by Operation.—Venesection in a Case of Hæmorrhage into the Pons Varolii.

AN ordinary meeting of this society was held on March 13th, Dr. BUZZARD, President, being in the chair.

Mr. GOLDING-BIRD read the notes of cases of Lymph Scrotum and Lymph Varix. The first case occurred in an athletic young man seen in September, 1895, in consultation with Dr. Patrick Manson. There were cutaneous swellings on the left side of the scrotum; these swellings had frequently burst and had discharged a milky fluid. He was born in England and had never been out of London. On examination there were vesicles or saccules of the size of millet seeds, forming moniliform lines converging towards the groin. There were no enlarged glands in the groin and no enlargement of the spleen. When pricked the swellings discharged a yellowish milky fluid which microscopically had the appearance of chyle. Nothing abnormal could be found in the blood. The cause was regarded as pressure of enlarged tuberculous mediastinal glands upon the thoracic duct. The right half of the scrotum was excised, the leaking points of divided lymph vessels being ligatured with silk. On examination of the removed skin numerous dilated lymph vessels were found in the dartos. The lad afterwards made a good recovery; the remainder of the scrotum was rather tightly stretched over the testes and only a few points of dilated lymph vessels were visible in the perineum. The patient was seen again three weeks ago and was quite well. In the forty-sixth volume of the Transactions of the Royal Medical and Chirurgical Society a paper was contributed by Dr. Buchanan of Glasgow relating a case of lymph varix in the thigh of a woman; it had developed twenty-one years previously, after her confinement, and there was nothing suggestive of filaria. The second case was one of lymph varix in a man who had long returned from Ceylon. On the right side there was a bubonocele and on the left a hydrocele of the tunica vaginalis testis. On the left side there also appeared to be a small inguinal hernia with contents feeling like omentum, but it was noticed that the internal abdominal ring was a mere slit. The hydrocele was tapped and a double inguinal truss ordered in July, 1890. In April, 1891, it was noticed that the swelling still came down under the truss on the left side and it was not completely reducible. An operation for radical cure was performed in May, 1891, and a swelling found in the inguinal canal looking like a varicocele except that the large vessels were distended with milky fluid. The vessels were isolated and ligatured above at the external abdominal ring and

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below at the testes. The fluid evacuated from the vessels had the microscopical appearances of chyle and no filaria was discovered. In the twelfth volume of the *Revue de Chirurgie* six cases of filaria were related which had a surgical aspect. In two of them the swellings resembled herniæ, in two enlargement of the testes, and in two enlargement of the lymphatic glands.

Dr. COLMAN and Mr. BALLANCE brought forward the particulars of a case of Subcortical Tumour of the Brain treated by operation. The lesion was a neoplasm cyst of the angular gyrus, causing aphasia, alexia, and agraphia. The patient was a woman aged thirty-two who had previously had excellent health. The first symptom was an isolated fit which occurred in December, 1894, ten months before death. She remained in her usual health till May, 1895, when it was noticed that she mis-spelled words, but was unable to recognise the error when it was pointed out to her. She had difficulty in comprehending the meaning of printed matter and hesitation in expressing herself, with occasional elision of syllables or entire words. There was occasional vomiting associated with severe headache, and in June weakness of the right hand developed. The symptoms were relieved for a time by iodide of potassium, but ultimately returned with greater intensity. At the end of July the first trace of optic neuritis occurred. On Aug. 9th she had been in agonising pain for several days. There was no facial or lingual paralysis, but the aphasia was more marked. There was more paralysis of the right hand and hemianæsthesia and analgesia most evident in the right arm. The optic neuritis was now definite, the mental condition of the patient was clouded, and during the previous night respiration had been irregular with long pauses. The diagnosis was made that there was a tumour in the centrum ovale beneath the angular gyrus and superior temporo-sphenoidal convolution, interfering with fibres passing from them to Broca's convolution and the region concerned in writing movements, and with those passing from the arm centre in the Rolandic region to the internal capsule. There was evidently rapidly increasing intercranial pressure, and it was decided to relieve this by removing bone freely over the region of the brain indicated and at a later date opening the dura mater. A parallelogram of bone about three inches square was accordingly removed. This was followed by immediate relief of pain, the sensory troubles cleared up, and she could read without difficulty. A week later, the pain and vomiting having returned and the optic neuritis having increased, a flap of dura mater was thrown down and a cyst bulged through the angular gyrus and was evacuated. The fluid was simple plasma and coagulated at once when exposed to the air and in the drainage-tube; this gave rise to great difficulty in the after-treatment. After the emptying of the cyst there was temporary complete aphasia, which passed off after a few days. The patient was entirely relieved of headache, read books eagerly, and could express herself accurately in writing. The optic neuritis completely subsided. In October, however, the drainage became unsatisfactory owing to the coagulation of the fluid, paralysis of the right hand became complete, and the patient became totally word-blind and word-deaf as well as aphasic. A few days before death the optic neuritis disappeared. She died ultimately from pneumonia. Post-mortem examination showed a large infiltrating glioma containing a cyst in the centrum ovale. It infiltrated the supra-marginal, angular, and superior temporo-sphenoidal convolutions without destroying the pyramidal cells. It did not involve the internal capsule or the inferior frontal convolution. Attention was drawn to the frequency of isolated convulsions in the early history of cases of cerebral tumour and to the fallacious improvement often seen on the administration of iodide of potassium. The character of the aphasia was discussed and reasons given for localising the tumour posteriorly rather than in the frontal region. Cases were quoted from other writers in which aphasia and inability to write were associated with limited lesions in the superior temporo-sphenoidal and angular convolutions respectively.—Dr. BEEVOR, after congratulating Dr. Colman and Mr. Ballance on the clearness with which the case had been brought forward, said that the absence of hemianopia was interesting. It had been rather a puzzle what the meaning of this symptom was, as the presumed lesion was often far away from fibres damage to which would produce this symptom. It probably resulted usually from affection of the optic radiations on their way from the optic thalamus to the occipital lobe. In the case related it appeared that the optic radiations were not affected. He referred to a case which had been published by himself and Mr. Horsley, in which a boy, after receiving a kick from a horse, developed an abscess in his left angular gyrus. Word-blindness and hemianopia were present, but in that instance the lesion extended and affected the optic radiations. In the case under discussion the anæsthesia passed off, in spite of the fact that the parietal lobule was affected. Another important observation was the necessity of opening the dura mater to relieve intracranial pressure. It had been shown experimentally that when a portion of the cranial vault was removed the pressure was not much diminished. It was essential to open the dura mater to accomplish a material diminution of pressure.—Dr. JAMES TAYLOR inquired as to the character of the visual field, especially as to the presence of concentric contraction on the side on which the lesion existed. He dissented from the conclusion that pressure was not an important matter in the causation of optic neuritis. The increase of the pressure before death was accompanied by a recrudescence of the optic neuritis.—The PRESIDENT congratulated Dr. Colman and Mr. Ballance on the clearness and conciseness of their paper. The patient had been under his own care for a month and he had found the diagnosis of tumour easy notwithstanding the late development of the optic neuritis. The symptoms varied much in intensity and severity and this was true of the paresis of the face. He had been in doubt as to the main seat of the tumour and it appeared to him likely that the neighbourhood of Broca's convolution was more directly interfered with than the post-mortem examination afterwards showed. He concluded that there was a large subcortical tumour present, and from the variation in intensity of the symptoms he regarded it as of vascular nature, probably a glioma, and consequently not an advantageous one for operation. He therefore prescribed iodide of potassium and mercury and decided to await their effect. The question of surgical interference in these cases of brain tumour was rather a difficult one. It was certain that where the tumour was not capable of removal the operation often prolonged life, but nevertheless the whole proceedings attending operation were formidable and he trusted that before long means would be devised to avoid operation for the mere relief of tension and to accomplish this latter by some other means. He did not deny that the amount of relief given by operation was enormous and was usually well purchased at the price. Where indications existed that the tumour was likely to be encapsuled physicians readily hailed the assistance of the surgeon, but such cases were not at all numerous. Starr had analysed a large number of cases of cerebral tumour and had found that only 7 per cent. of them were capable of removal. It was well that this fact should be known, for the lay and even the medical public seemed to think that the great majority of intra-cranial tumours were removable by surgical procedures.—Dr. COLMAN, in reply, said that though they stated in their paper that pressure was not the only cause of optic neuritis, they by no means denied its causative influence. The visual field had not been tested with a perimeter. At the post-mortem examination there was actual infiltration of the optic radiations, but death took place long after the last observation as to the presence or absence of hemianopia.—Mr. BALLANCE, in reply, admitted that operation was dreadful, but it was undertaken for the relief of a very dreadful disease. The only way of relieving tension other than by operation would be to discover something antagonistic to malignant growths, and to do this the real nature of their cause must be ascertained.

Dr. F. L. BENHAM read the details of a case of Hæmorrhage into the Pons Varolii in which Venesection was followed by Recovery. The case was that of a widow aged fifty-three whose mother had died from apoplexy followed by hemiplegia at the age of fifty-five. She was a healthy woman, rather stout in build. She bore the marks of old scrofulous abscesses in the neck, but was otherwise free from organic disease. She had had two attacks of influenza in the last three years. The present illness began without any premonitory symptoms. She was suddenly seized while dressing one morning with apoplexy attended by epileptiform convulsions, chiefly on the left side, and complete unconsciousness. The eyes were shut; the head, eyeballs, and mouth were all drawn to the right side; and the pupils were much contracted, the left being rather the smaller. Respiration was much

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e unbarrassed. There was foaming at the mouth, but the tongue was not bitten. The surface of the body was pale and dusky, with a clammy sweat. Within three-quarters of an hour from the onset of the attack she was bled from the right median cephalic vein. Forty-eight ounces of blood were withdrawn. When this was done the convulsions ceased and breathing became easy; the pupils were larger and the conjugate deviation of the eyes and head was less marked. The skin was pale, but less dusky. Consciousness had not returned. Five grains of calomel were administered in addition to croton oil. There was no return of the convulsions at all; the eyes, head, and limbs moved more freely and spontaneously, but there was found to be some weakness of the right side, and later distinct anæsthesia was detected in the right arm and leg. Sensibility and consciousness gradually returned, but complete consciousness and memory did not return for twelve days, the patient describing this interval afterwards as an absolute blank. There was slight aphasia during recovery. The paralysis of the left side of the face and right limbs lasted but for a short time, but traces of anæsthesia in certain fingers and toes persisted for some weeks. Retention of urine occurred immediately after the apoplexy, which caused cystitis. There was obstinate constipation all along. The patient steadily recovered. In a month's time she was able to walk about the room and in six weeks from the onset she went out of doors for a walk. She had remained in excellent health up to the present time, eleven months after.—Dr. F. J. SMITH said that if the hæmorrhage were pontine it ought to have given rise to more organic disturbance than was afterwards shown. He thought more likely it was a case of cerebral or meningeal congestion.—Dr. BEEVOR thought that the lesion was more likely one of the left cerebral hemisphere. He quoted the case of a boy who was convulsed for twenty minutes and was afterwards in a state of coma for twenty-four hours, and he ultimately got well without venesection. The latter procedure, therefore, he regarded as rather *post hoc*.—The PRESIDENT was inclined to agree with Dr. Benham's diagnosis. The extremely contracted pupil, convulsions, and conjugate deviation of the eyes all pointed to pontine lesion. The lowered temperature pointed to hæmorrhage rather than to meningitis. The recovery of power was rapid, but the condition at the worst had been one of paresis rather than paralysis. He referred to the case of a female patient who suffered from a lesion of the pons which developed suddenly. He himself saw her move all her limbs shortly before death, yet at the post-mortem examination a clot of blood weighing more than an ounce was found to be lying on the surface of the pons. He thought in Dr. Benham's case also the blood was effused upon the surface of the pons and not within it, ploughing up the nervous matter; the lesion was more one of pressure than of destruction. The anæsthesia of both legs below the knee would also point in this direction, while this could not be explained by a hemispherical lesion.—Dr. BOWLES remarked that bleeding relieved the respiratory difficulties, but this might, perhaps, have been done by another method. The mouth could have been opened, the tongue guarded, the patient placed on the side to let the saliva flow away, and thus prevent foaming and obstruction at the fauces.—Dr. TURNEY thought that it was extremely difficult to accept the diagnosis of pontine lesion and suggested as an alternative a meningeal hæmorrhage. The attacks were like the convulsive attacks frequently met with in general paralysis.—Dr. BENHAM, in reply, said that the diagnosis had been based upon the presence of crossed paralysis with extreme contraction of the pupil. He thought that the lesion was rather towards the roof than in the substance of the pons. Bleeding was good for plethoric people, and marked benefit would follow if sufficient blood were taken.

OPHTHALMOLOGICAL SOCIETY.

Keratiti occurring in Leprosy.—Recurrent Paralysis of Ocular Nerves.—Reflex Amblyopia due to Pregnancy.—Exhibition of Cases and Specimens.

A MEETING of this society was held on March 12th, Mr. E. NETTLESHIP, President, being in the chair.

Mr. KENNETH SCOTT (Cairo) read a paper on Keratitis occurring in Leprosy. One of the patients was a male Egyptian who had been afflicted with anæsthetic leprosy for many years. Included among the affected parts were most of the muscles supplied by the facial division of the seventh nerve. He could not close the eyes, which were consequently exposed to external irritation. There was diffuse infiltration of the lower portions of both corneæ, with a group of three or four raised papillæ covered by epithelium. Similar papillæ were present in a second case. Mr. Scott would have regarded the corneal affection as due to exposure only had it not been for the presence of these small groups of raised papillæ.

Dr. ORMEROD and Mr. HOLMES SPICER communicated a paper on Recurrent Paralysis of Ocular Nerves. Seven cases were narrated, three of which were of the third nerve. The patients had suffered from a periodically recurring one-sided headache, attended with vomiting and a sense of illness, the attacks varying much in intensity. The slighter ones had passed off after a few hours; the more serious ones had lasted several days and had been accompanied by sudden and more or less complete paralysis of the corresponding third nerve. In the earlier attacks the paralysis was recovered from, but after several recurrences some of the parts of the third nerve became permanently paralysed. In one of the cases there was partial atrophy of the corresponding optic nerve. The fourth case had recurrent paralysis of both third nerves occurring after a long course of periodic headaches, in which the ultimate condition was one of complete ophthalmoplegia externa of both eyes. The remaining cases were of paralysis of the sixth nerve, in one of which the seventh nerve was also involved and in the other the third was partly involved. The opinion was expressed that the term "migraine," which was commonly applied to these cases, was an unfortunate one; there was no history of the other migraine phenomena in the published cases, such as hemianopsia or scotomata or visual spectra; moreover, the motor character of the affection and the persistence of the impairment of movement pointed to a definite focal lesion of the base of the brain, an opinion which was supported by the results of post-mortem examination.—The PRESIDENT thought that thanks were due to Dr. Ormerod and Mr. Holmes Spicer for putting these cases together, and thus furnishing an opportunity for estimating rightly the position of our knowledge concerning them. The subject was still unexhausted.—Mr. GRIMSDALE stated that he had shown a boy who was just recovering from a sixth attack, which resembled those described by Dr. Ormerod and Mr. Holmes Spicer. In his patient the attacks always occurred in cold weather and were attended with tenderness on pressure of the globe.—Dr. ORMEROD referred to some cases reported to the society some years ago by him of localised unilateral paroxysmal headache, followed by œdema or ecchymosis of the lid. He mentioned them because some of the cases alluded to by him and Mr. Spicer were said to have congestion of the eye during the attacks.—Dr. JAMES TAYLOR thought there was room for further investigation of these cases. He thought there was evidence of affection of the trunk of the nerve rather than of the nucleus. In the cases which he had himself observed the paralysis had gradually become permanent. He did not think trigeminal neuralgia was at all commonly associated with third nerve paralysis. There was no anæsthesia in most of these cases such as would exist if the fifth nerve were involved.—Dr. COLMAN referred to a case of this kind which had recently come under his observation, in which there was rapid flapping of the eyelid up and down at the beginning of the attack, which he regarded as the representation of a motor convulsion. He did not agree with Dr. Taylor that the symptoms pointed to an affection of the trunk of the third nerve, as in some of the recorded cases there had been no paralysis of the iris. Other cranial nerves were also implicated. He thought an extensive tract of grey matter, including the nuclei of these nerves, was the seat of the lesion. He would not group these cases under the heading migraine, as in none of the thirty cases were any of the visual phenomena present associated with that condition.—Mr. PRIESTLEY SMITH said he had been accustomed to regard these cases as due to a general diathetic condition, like ordinary neuralgia or, sciatica rather than to a focal lesion. He had had one case which was a therapeutic success; it was in a young man who had had skilled treatment for some time without benefit. He had put him on an elimination course of free hot water drinking; his headache had been much diminished and he had had no recurrence of paralysis.—Mr. ERNEST CLARKE said he had cured one case of this kind by correcting an error of refraction in the affected eye.—Dr. HILL GRIFFITH said he had met with

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references to painful subcutaneous nodules in cases of fifth nerve neuralgia. He asked if others had met with them, as he had looked for them unsuccessfully.—Mr. POWER suggested that worms might possibly be the cause of this recurring paralysis.

Mr. LAWFORD KNAGGS narrated a case of Reflex Amblyopia which he attributed to pregnancy. The patient at the age of thirty-two went blind in the left eye during a pregnancy. When first seen that eye diverged, had no perception of light, and showed atrophy of the optic nerve. There had been four children since; at the age of forty, being four months pregnant, the fundus of the right appeared normal; there was rapid failure of vision from $\frac{6}{12}$ to less than finger vision, loss of colour vision, and concentric contraction of the visual fields. Premature labour was induced, and six months later vision had again become $\frac{6}{9}$ and the field was restored to the normal except for the obliteration of the right inferior quadrant, colour vision was perfect, and the appearance of the optic disc suggested partial atrophy. A year later the patient became pregnant again; there was again loss of sight, with contraction of the field, the colour vision being unaffected. Premature labour was again induced. Vision was restored to $\frac{6}{9}$; the field regained its former size, except that the right upper quadrant was lost. The prognosis of this form of amblyopia was very serious; it was probably produced by a deficient blood-supply resulting from vasomotor constriction of the vessels of the chorio-capillaries. If there was loss of visual acuity with progressive contraction of the visual fields the pregnancy should be terminated in order to avoid the risk of permanent blindness.—Dr. JAMES TAYLOR thought that the title of the paper should not be passed over without discussion. The condition of the visual fields described was not like that of functional change, and he thought it was going too far to label the case reflex amblyopia when there was evidence of grave organic change.—Mr. PRIESTLEY SMITH thought it possible that local conditions of the generative organs might set up a temporary spasm of the retinal vessels, which, if prolonged, would result in all the signs of blocking of the retinal artery. In Mr. Knaggs' case the condition was due to a vascular lesion, as the scotoma started from the optic disc.—Mr. JOHNSON TAYLOR thought the case was probably one of atrophy of the optic nerves coming on at different times in the two eyes.—The PRESIDENT thought it possible that the affection was chiasmal, first affecting one nerve at its emergence from the chiasma, then later on travelling back and taking part of the remaining fibres. The variations in the size of the fields might be taken to be reflex.

The following cases and card specimens were shown:—

Mr. LAWS: Case of Retinitis Circinata.

Mr. DOYNE: (1) Case of Aneurysms of the Retinal Vessels; and (2) Ossification of the Choroid and Calcification of Lens.

Dr. ROCKLIFFE: Sarcoma of the Orbit.

Mr. RIDLEY: Glaucoma following Cyclitis.

Mr. POULETT WELLS: Transverse Films of both Corneæ.

Mr. GRIMSDALE: Recurrent Paralysis of the Third Nerve.

Mr. ERNEST CLARKE: (1) Detachment of the Retina; and (2) Sarcoma of the Choroid.

Mr. STEPHENSON: Unusual Arrangement of the Retinal Arteries.

HARVEIAN SOCIETY OF LONDON.

Anæsthetic Leprosy in a Boy.—Unusual Syphilitic Eruption.—Morbus Cæruleus with Spina Bifida Occulta.—Early Myxœdema under Thyroid Treatment.—Two Cases of Acromegaly.—Pityriasis Rosea.—Lichen Ruber Acuminatus.—Abdominal Case for Diagnosis.—Pericranial Effusion following Influenza.

A CLINICAL meeting of this society was held on March 5th, Dr. WM. HILL, Vice-President, being in the chair.

Dr. KNOWSLEY SIBLEY exhibited a case of Anæsthetic Leprosy in a boy sixteen years of age, who was born in India of English parents. At the present time he was employed on the railway and had been in England four years, having spent the first twelve years of his life in India and Burmah. His family and previous history presented no special features. For about two years he had noticed some numbness and gradual loss of sensation over the region of the left great toe and inner part of the lower third of the left leg. He came under treatment at the North-West London Hospital a few weeks ago on account of a sore about the dorsum of this great toe, due it was believed to an ill-fitting boot, and it was discovered that there was a complete loss of sensation about the region of the ulcer and over the cutaneous distribution of the long saphenous nerve and part of the anterior tibial. There was some hyperæsthesia over the shin-bone in the upper half. The patellar reflex on this side was exaggerated and there appeared to be some wasting of the muscles of the calf on this side. The boy was markedly freckled, but there were no other patches of discolouration to be seen about his body. The external popliteal nerve on the affected side was more readily felt than on the opposite side, the ulnar nerves were very easily felt, but one could not be certain of any enlargement, though there appeared to be some dulling of sensation over the ulnar distribution about the palms. Dr. Sibley discussed the other pathological conditions which might have accounted for the symptoms—namely, a condition allied to Raynaud's disease, post-diphtheritic paresis, and post-influenzal neuritis—but he considered on the whole the elephantiasis theory the most probable one.—The case was discussed by Mr. C. G. BRODIE and Dr. ABRAHAM.—Dr. KNOWSLEY SIBLEY also brought forward a case of a woman forty years of age who had been the subject of Lues for twelve years. She had been married twenty-one years, and previously to inoculation had given birth to four healthy children. She had had two children since; the one died at four months from some glandular affection, and the other, five years of age, was delicate, but still living. The eruption, which now very closely resembled some forms of lupus, had attacked the ears, forehead, and hairy scalp, and at the present time was very extensive over the back, extending in a centrifugal manner; the central regions showed pigmentation with very superficial scarring. The progressing margin, which was raised and scaly and somewhat inflamed, extended all over the shoulder regions to below the middle of the back, and was spreading over the clavicular regions anteriorly. Dr. Sibley said that the patient had been under treatment at the North-West London Hospital on and off for the past twelve years; the present condition was much aggravated from the fact that she had been laid up at home with a severe cold, and so had not had any anti-specific medicine for a few weeks. He stated that although internal treatment at once improved the general condition of the patient and the local appearance of the eruption, he did not believe the case would now be cured without some local cauterising application, for undoubtedly, as in lupus, one had here to deal with an infective or germ-containing spreading margin which must be destroyed by direct application.

Dr. LEONARD GUTHRIE showed a girl aged three years the subject of Morbus Cœruleus, Spina Bifida Occulta, and a peculiar Paretic Condition of the Legs. Cyanosis had been present from birth; it was much increased during excitement. The heart was not enlarged. A systolic bruit was heard loudest between the ensiform cartilage and the left nipple; it was heard more faintly at the base of the heart, in the axilla, and over the back. Pulmonary stenosis, with probably patency of the ductus arteriosus and perhaps of the foramen ovale, was held to be the condition present. She had never been able to stand alone and showed no sign of walking, but could crawl about and drag herself up to a standing position by means of a chair. The legs were freely moved and not wasted. All the joints allowed more range of movement than normal. The legs could be flexed at the hips until the feet were above the head level. There was some genu recurvatum, and the feet could easily be put into the fœtal position of talipes calcaneus. The knee-jerks were exaggerated. There was a deep post-anal dimple in the mid-line at the sacro-coccygeal joint, but no deficiency of the sacral laminæ could be felt.—Dr. GUTHRIE also showed a woman aged thirty-nine years who had symptoms and signs of Early Myxœdema of four months' duration. After ten days' treatment with thyroid tabloids she had markedly improved in appearance and condition.—Mr. JACKSON CLARKE said that the hyper-mobility of the lower limbs in the first case was of interest especially since it was associated with indications of a spina bifida occulta. He thought it would be difficult to decide whether this association was one of cause and effect or whether the mobility was due to muscular flaccidity due to the asphyxiated condition of the tissues. There was no indication of congenital hip-dislocation.

Dr. LESLIE THORNE THORNE showed a man aged forty-eight years suffering from Acromegaly in whom the first symptoms of the disease appeared when he was twenty-one years old. He pointed out that in this patient most of the signs and symptoms of the disease were well marked, but

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that the case was unusual in that most of the long bones were markedly affected, especially the tibiæ and fibulæ, which were greatly thickened and showed a marked curve outwards and forwards. He also showed a list of measurements of the hypertrophied parts, which list he had made out in March, 1895, and mentioned that those measurements were unaltered at the present time.

Mr. R. W. DODGSON showed (by kind permission of Sir William Broadbent) a case of Acromegaly in a woman aged twenty-three years. The history was that she had always enjoyed good health until three years ago, when she began to suffer from severe frontal headache, pains in the joints, &c. At the same time she noticed that her hands and feet were growing larger and this has continued steadily since. She first noticed the enlargement of the face two years ago. She has been very languid and sleepy during this period. Originally she wore size 3 in boots, but now has to have special boots made. Her hair has fallen out in large quantities. It is normal in texture. She had complete amenorrhœa for three years; previously the catamenia had been regular. She also suffered from obstinate constipation. Her sight was good until six months ago, when it began to fail. Her memory has been greatly impaired. Her present condition is as follows:—There is great and characteristic enlargement of the hands, feet, face, clavicles, and upper two ribs. The nose and upper maxilla are specially enlarged. The ears and tongue are normal. There is complete homonymous hemianopia of the left fields of vision. The temporal side of the right and the nasal side of the left retina are insensitive to light. There are no optic atrophy, nystagmus, &c. The thyroid gland is somewhat enlarged. The constipation was treated. She was also given tabloids of pituitary body. For the last few weeks she has been much less lethargic. The memory has improved. Photographs taken during the last three years were shown, depicting the gradual increase in size.

Dr. P. S. ABRAHAM exhibited cases of Pityriasis Rosea and of Lichen Ruber Acuminatus, and demonstrated the points of difference between the first and seborrhœic eczema and between the second case and Dévergie's disease.—Mr. JACKSON CLARKE thought that the absence of a crinkled surface in the central parts of the lesions, the long duration of the affection, and the response to treatment in the first case favoured a diagnosis of seborrhœic eczema rather than of pityriasis rosea. The second case raised the knotty point of the identity or non-identity of Dévergie's pityriasis rubra pilaris with lichen ruber acuminatus. Kaposi and Malcolm Morris amongst others regarded them as identical. Mr. Clarke thought that Dr. Abraham's case was certainly not pityriasis rubra pilaris.—Dr. SIBLEY looked upon pityriasis rosea as a more or less acute disease beginning possibly insidiously, but then rapidly developing and running a very definite course of five or six weeks, and disappearing with or without treatment, and also never recurring in the same individual; he was disposed rather to consider this case one of seborrhœic eczema.

Dr. G. A. SUTHERLAND showed an Abdominal Case for Diagnosis. The patient was a boy aged fourteen years who had suffered from infancy from vomiting during meals unaccompanied by any other signs of gastric disturbance. The attacks of vomiting would persist for months and lead to great weakness and emaciation, after which there would follow a period of partial recovery. The abdomen was as a rule distended, but during the previous six weeks it had become much more prominent and the liver had enlarged rapidly until it now extended two inches below the level of the umbilicus. The other systems were apparently normal. The vomiting had ceased for a fortnight, there had been no pyrexia, and he had gained eleven pounds in weight during the last two months.—The case was discussed by Dr. LUFF, who inclined to the opinion that the liver enlargement was due to syphilis, and by Dr. ALEXANDER MORRISON, Dr. GUTHRIE, and Dr. SIBLEY.—Dr. SUTHERLAND, in reply, said that he thought syphilis might be excluded from the fact that the liver had been enlarging during a course of mercurial inunction. Hydatid of the liver was a possible cause, although at present no localising mass could be detected.

Dr. ESSEX WYNTER exhibited a case of Pericranial Effusion following Influenza. The patient, a man aged thirty years, had an attack at the end of January, 1896. About a fortnight later he noticed tender bumps on the head situated over the brow, temples, and vertex, seven or eight in number, about the size and shape of half a hazel nut, and in the first instance almost as hard as bone. After three weeks some had nearly disappeared and others fluctuated and were evidently fluid. They were firmly fixed to the bone and the scalp moved freely over them. There was no redness and no history of syphilis. Dr. Wynter quoted two other cases he had met with in the spring of 1895 in a man and woman both aged fifty years. In the latter one "bump" had suppurated and the condition recurred with a subsequent attack.

HUNTERIAN SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held at the London Institution on March 11th, the President, Dr. G. E. HERMAN, being in the chair.

After some introductory remarks from the PRESIDENT the remainder of the evening was given to the exhibition and discussion of pathological specimens.

Dr. ARNOLD CHAPLIN showed a Heart with well-marked Stenosis of the Pulmonary Valve and a Communication between the Auricles. He discussed the connexion between stenosis of the pulmonary valve and phthisis.

Dr. COTMAN brought forward a patient in whose case the Roentgen rays were used to diagnose the Nature and Extent of the Deformity after a Fracture of the First Phalanx of the Left Forefinger.

Dr. GLOVER LYON showed a specimen of Sacculated Aneurysm of the Second and Third Part of the Arch of the Aorta, in which a clot was present nearly filling the sac of the aneurysm. In the case from which the specimen was taken the left pulse was larger than the right and the left bronchus was dilated. The patient subsequently died from dyspnœa, for which at the necropsy no cause could be assigned.—Dr. F. J. SMITH, Dr. SEQUEIRA, and Dr. HINGSTON FOX discussed the two preceding specimens.

Dr. GLOVER LYON brought forward a preparation of a Cavity in the Lung, in which the origin was obscure, it being doubtful whether the cause was an aneurysmal dilatation which had burst into a bronchus or a pulmonary cavity with a hæmorrhage into it due to rupture of a pulmonary aneurysm.—Dr. CHARLEWOOD TURNER thought the cavity was a dilated bronchus filled with hæmorrhage from a ruptured pulmonary aneurysm.

Mr. TUBBY showed Specimens of the Bones in Scurvy Rickets. The points emphasised were the separation of the epiphyses and the hæmorrhage beneath the periosteum.—Dr. CHARLEWOOD TURNER, Dr. F. J. SMITH, Dr. GLOVER LYON, Mr. TARGETT, and Dr. HOAR joined in the discussion.

Dr. SEQUEIRA showed a specimen of Intra-abdominal Band of unusual length, which was evidently produced by adhesion of the hydatid of Morgagni to the great omentum and the subsequent stretching and elongation of the pedicle by the excursions of the great omentum.

Mr. TARGETT showed the Trunk of an Anencephalic Fœtus with a slender fibrous cord passing from the root of the mesentery to the umbilicus. A second fœtus was shown in which a cord passed from the left groin to the liver. Ectopia vesicæ was present. The cord was evidently not the round ligament, but probably a deep epigastric artery, which, on account of the ectopia vesicæ, had lost its proper attachment and found a new one at the liver.—Mr. TARGETT also showed two other specimens, one of Non-tuberculous Epididymitis in which pus had formed, and the other of Gangrene of the Testis produced by torsion of the cord.

BRITISH GYNÆCOLOGICAL SOCIETY.

Ventro-suspension and Ventro-fixation of the Uterus, and Allied Operations, with their Results.—Exhibition of Specimens.

A MEETING of this society was held on March 12th, Dr. CLEMENT GODSON, President, being in the chair.

Professor MAYO ROBSON (Leeds) read a short paper on Ventro-suspension and Ventro-fixation of the Uterus and Allied Operations, with their Results. He said the question was important as dealing with a method of treatment the position of which was not yet fixed in gynæcological practice. In estimating the value of operations of expediency, which were done for the purpose of giving relief to suffering and

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not for the saving of life, four points of view had to be considered: (1) their necessity, (2) their safety, (3) their efficiency, and (4) whether they left a patient less fitted for life in other ways. The operations for the relief of symptoms dependent on retroflexion of the uterus with or without adhesions, or on severe prolapsus uteri, which, though not dangerous to life, caused the patients to seek relief, were to be classed as operations of expediency. A parallel was to be found in the radical cure of non-strangulated hernia, removal of the vermiform appendix in recurrent appendicitis, osteotomy for deformities, and laparotomy for the removal of adhesions in recurrent abdominal pains, all of which were sanctioned by professional opinion and demanded by suffering humanity. 1. *Necessity.*—After all minor procedures had been tried and accidental complications had been treated, when operation seemed likely to give the desired relief, and the risks had been explained to the patient, it seemed to him that the necessity for operation had been fully established. 2. *Safety.*—The sixteen cases of ventro-fixation which he had performed had given him no anxiety, and he thought that the experience of others would corroborate the view that when all proper precautions were adopted there was practically no risk. At the same time, the accidental complications which might attend any operation, however slight, had to be taken into account. 3. *Efficiency.*—This was a point which the discussion should help to establish. There could be no doubt about the immediate relief to pain and pelvic distress or as to the beneficial effect on the patient's general health in nearly every case; but what they wanted to ascertain was, Did the relief last, or was there a tendency to relapse? They would expect information also as to the influence on subsequent pregnancies and the tendencies to abortion; and would wish to know whether after parturition there was a liability to resumption of the old displacement. His colleague, Dr. Braithwaite, had related to him one case in which abortion followed, but in which after the abortion the uterus was in good position; and a second case in which the patient had a normal delivery at term. He could himself vouch for the permanent beneficial effects on some of his patients, as shown by the complete restoration to health, the resumption of marital relations previously impracticable on account of dyspareunia, the loss of all pelvic discomfort, and the absence of the necessity of further medical attention. 4. *Results.*—The question whether the patient was left less fitted for life was best answered by considering the possible complications such as hernia or intestinal obstruction. A hernia could be prevented by proper care in suturing the abdominal walls. Intestinal obstruction was a possibility, but so far no case had been reported. There were two classes of operation to be considered: the extra-peritoneal, such as Alexander's operation and its modifications, and the intra-peritoneal. Alexander's operation, as modified by Kocher of Berne, was very satisfactory from an anatomical point of view, but he had been disappointed with it in that when undertaken for prolapse it generally required plastic operations in addition, whilst in retroflexion with adherent appendages it was useless, and in the absence of adhesions other procedures were as efficient. He had performed the operation five times and in only one case had been quite satisfied with it. In three cases the relief was only temporary, whilst he had lost sight of the fifth case. When it was necessary to lift up and fix forward the uterus and to separate pelvic adhesions ventro-fixation was probably the best method, and it might then be regarded as a conservative measure. In such cases he had been much gratified with the results. In complete procidentia he was not satisfied with it, as it required supplementary plastic procedures. He regarded hysterectomy for procidentia as unjustifiable. A modification of ventro-fixation consisted in the combination of hysterorrhaphy with other operations, such as ovariotomy or the removal of diseased appendages. Keith's operation came under this category. He concluded (1) that in the treatment of retroflexion or retroversion, after the failure of other means, ventro-fixation offered a means of treatment leading in so many cases to permanent relief that the operation was likely to have a permanent place in surgery; (2) that the necessity for the operation usually only arose when adhesions were present, other cases generally yielding to less heroic measures, including Alexander's operation; and (3) that in the treatment of procidentia ventro-fixation without other supplementary measures usually resulted in disappointment; but that in certain cases, when combined with colporrhaphy or perineorrhaphy, the results were sufficiently good to encourage the gynæcologist to advise operation where all the ordinary methods had failed to give relief.

Dr. LEITH NAPIER stated that an important paper had recently appeared in the *Zeitschrift für Geburtshülfe und Gynäkologie*, in which the results of 154 operations were given: in 63 cases pregnancy had followed, 54 being delivered at term. It had been objected that cases of pregnancy after the operation required artificial delivery in a larger proportion than usual, and that cross-births were more frequent. But the objection was greatly weakened by the fact that most of these patients would not have become pregnant at all except for the operation. He then gave the after-histories of the cases he had read before the society in 1893 and subsequently published in conjunction with Dr. Schacht. One patient had two subsequent labours at term, one had one pregnancy going on to term, one aborted at two months, one had an early menopause, and this one, with the fifth, presented no subsequent return of her bad symptoms.

Dr. GEORGE KEITH observed that his father never removed both ovaries unless diseased, though this impression was conveyed in Mr. Mayo Robson's paper. His practice was to remove the appendages of one side only in such a case and suture the stump to the wound.

Mr. J. W. TAYLOR (Birmingham) had performed Alexander's operation in about a dozen cases and two of his patients subsequently became pregnant; but it had two drawbacks—firstly, the abdomen had to be opened on both sides, increasing the risk of hernia; and, secondly, it was useless when there were adhesions, and these could not always be diagnosed before operation. He therefore gave it up in favour of ventro-fixation; the first three cases relapsed, owing to the sutures not being buried; the remaining seventeen were cured. But in view of the necessity of an additional plastic operation in cases of prolapse he had adopted vagino-fixation, which he had now done in seventeen cases with most satisfactory results. It presented the advantage that it could be combined with other procedures, such as removal of diseased appendages.

Mr. FRED. EDGE (Wolverhampton) had had an experience very similar to Mr. Taylor's. He first tried Kocher's modification of Alexander's operation, but gave it up for the same reasons. He had had twelve cases of ventro-fixation, but not finding his results as satisfactory as he wished had given it up in favour of vagino-fixation, with which he had been more than satisfied. He had performed this operation twenty times, and thought it was of special advantage in cases of retroversion associated with cystocele, for by the conditions of the operation the fundus could not fall back without drawing up the cystocele, and the latter could not come down without dragging forward the fundus, so the two tendencies balanced each other.

Dr. SCHACHT'S experience led him to endorse Professor Mayo Robson's views. He had had two cases of ventro-fixation recorded in the paper to which Dr. Napier had referred. In one the results were very good at the time of the last report, and in the other case the patient became twice pregnant after the operation, the first pregnancy ending in abortion at the fourth month and the second going on to term. In the latter case he had an opportunity of seeing the patient at the time of her confinement, and when the labour was over he could feel the uterus closely applied to the abdominal wall. He thought that the possibility of subsequent pregnancy should influence the method of suturing the uterus.

The discussion was then adjourned to the next meeting.

The following specimens were exhibited:—

Dr. PURCELL showed three specimens of Carcinomatous Uteri removed by Vaginal Hysterectomy.

Dr. HEYWOOD SMITH, Dr. BANTOCK, Mr. BOWREMAN JESSETT, and Mr. J. W. TAYLOR joined in the discussion.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.

Rheumatic Fever associated with Delirium and Coma.—The Diagnosis and Treatment of General Septic Peritonitis.

A MEETING of this society was held at the Great Northern Central Hospital on March 12th, Mr. CHARLES KING being in the chair.

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Dr. ROBERT BURNET read the case of a man aged forty-two years who was admitted under his care into the Great Northern Central Hospital on Sept. 26th, 1895, suffering from a Second Attack of Acute Rheumatism. He stated that he had experienced slight attacks of the disease since his first severe attack at the age of fourteen and that his mother also had had rheumatic fever. There was no history of mental instability, of alcoholism, or of syphilis. He had been in bed for three weeks before his admission, and there was intense pain in the joints and he was quite unable to move. He seemed well-nourished, intelligent, and perfectly rational. In spite of the pain in the joints there was comparatively little swelling. Beyond slight enlargement of the area of cardiac dulness, the apex beat being one inch outside the nipple line, and some indistinctness of the first sound at the apex, there seemed to be no affection of the thoracic viscera. The pulse was regular, at the rate of 120, and the temperature 102° F. The tongue was furred and the bowels were constipated. He was given a calomel purge and a mixture containing twenty grains of salicylate of soda every two hours. The joint pains had all subsided at the end of twenty-four hours and the salicylate of soda was discontinued. On Sept. 28th he had slight delirium, although there was no recurrence of joint pain or other signs of serious import. He slept after a draught of chloral and bromide. In the morning he was quite rational, although the temperature was 102°. The next day he was very delirious and violent, but still took nourishment well, the diet consisting of milk with six ounces of whiskey in twenty-four hours. At 11 P.M. he was given a hypodermic injection of morphia and was quiet till 5 A.M. The day following he was very noisy and violent, the temperature was 102° and the pulse 90. Towards evening the temperature rose to 103°, the breathing became stertorous, the face cyanosed, and the pulse running. He died on the evening of that day. The temperature after death rose to 106°. The necropsy was made by Dr. Freyberger. The brain was found to be very hyperæmic, although there was no effusion of blood within the cranium. The intra-ventricular fluid was very turbid. Along the course of the larger vessels of the pia mater occurred white fibrous thickenings from the size of a millet-seed to that of a split pea. There was slight œdema of the lungs, but no other morbid condition of any of the other organs was visible to the naked eye. Dr. Burnet alluded to the fact that formerly cerebral symptoms occurring in the course of rheumatic fever were attributed to pericarditis or to meningitis and hyperpyrexia; but in some cases the cerebral symptoms were found without either pericarditis or meningitis, and therefore it was admitted that cerebral symptoms might be present with pericarditis alone or with hyperpyrexia alone. He also remarked that alienists recognised a true alternation between rheumatic fever and mental disorder without hyperpyrexia where, as in the case under notice, the patient suddenly lost all joint pains and became delirious. Dr. Burnet's patient had no high temperatures, there were no signs during life of pericarditis, or of endocarditis, and the necropsy showed hyperæmia of the brain without meningitis and without any sign of inflammation in or around the heart. He therefore considered this case as allied to the latter group.

Mr. C. B. LOCKWOOD read a paper, illustrated by the lantern, on the Diagnosis and Treatment of General Septic Peritonitis. After referring to the extreme fatality of general septic peritonitis Mr. Lockwood said that of late some cases had been saved by surgical measures. Also, that success might be greater if an earlier diagnosis was made. As the greatest difficulty of diagnosis was met with in peritonitis due to internal causes that class of case was mainly referred to. The clinical symptoms were discussed in turn, and it was argued that clinical experience showed that reliance could not be placed upon the appearance, general condition of the patient, on the temperature, upon the condition of the abdomen, and so forth. In the vast majority of cases the symptoms of general septic peritonitis were the symptoms of acute intestinal obstruction due to mechanical causes. The leading features of acute intestinal obstruction were mentioned. In peritonitis the most reliance was to be placed upon (1) the non-passage of flatus and of fæces; (2) the abdominal distension; (3) the absence of vermicular movement; (4) the collection of fluid in the pelvis; (5) upon evidences of inflammation above the cæcum, Fallopian tubes, gall-bladder, or elsewhere; (6) the pulse; (7) the vomiting; and (8) the previous history. In most cases it is impossible with our present means to diagnose acute general septic peritonitis from acute mechanical obstruction. The operation of laparotomy in general septic peritonitis was discussed. Especial stress was laid upon rapidity and precision in operating, upon the thorough emptying of the distended intestines, and upon the prevention of shock and collapse. Lastly, the influence of the kinds of peritonitis upon the prognosis was mentioned. In bacillary peritonitis the effects upon the serous membrane were superficial and capable of recovery. In streptococcus peritonitis the bacteria had penetrated the depth of the peritoneum and could not be assailed by ordinary measures. Since November, 1893, Mr. Lockwood had operated upon ten cases of acute general septic peritonitis, of which three had recovered. Of the latter, one was due to gangrene or ulceration of the vermiform appendix, one to a perforation of the ileum, and one to salpingitis. In considering the fatality in these cases the inevitably deadly nature of the disease has to be remembered.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Ludwig's Angina.—Sporadic Cretinism.—Multiple Lipomata.—Bronzed Skin.—General Paralysis in the Early Stage.—Cardiac Bruits.—Salivary Fistula.—Adenoma of the Tongue.—Gummata of the Arms.—Card Specimens.

A CLINICAL meeting of this society was held on March 6th, Dr. A. SYMONS ECCLES, President, being in the chair.

Dr. SEYMOUR TAYLOR showed a case of Ludwig's Angina. The patient, a man aged thirty years, had passed through a severe attack and recovered save for a small amount of residual induration on the right side of the neck under the use of iodide of potassium. No incisions were found to be necessary. The case was one of a series which occurred as if epidemically in the Hammersmith district.

Dr. CHAPMAN brought forward a case of Sporadic Cretinism. The patient was a girl aged eighteen years who presented most of the typical features of the disease. She had never been able to stand and had no control over the sphincters. Her father had been a very heavy drinker.—Dr. CHAPMAN also showed a man aged forty-seven years who had a large number of lobulated subcutaneous growths presenting the physical characteristics of Lipomata or fibro-lipomata, in size varying from a nut to an orange. The first one appeared about four years ago during an attack of malarial fever in which there was a marked shrinkage of his normal subcutaneous fat. The only parts of the body now free from the growths were those subjected to pressure. There was no evidence of visceral disease and no history of syphilis; none of the tumours had been excised for examination.—The PRESIDENT conjectured that the growths might be of lymphatic origin. He had seen similar cases in the near east which were believed to be of that nature.—Dr. S. TAYLOR and Dr. ALDERSON believed that the growths were lipomatous.

Dr. H. SUTHERLAND exhibited a case of Bronzed Skin. The patient was a middle-aged woman whose symptoms had lasted about eight years and were those usually found in Addison's disease. The bronzing was most marked on the face, breasts, axillæ, elbows, buttocks, and linea alba. Suprarenal extract had been tried for six weeks without benefit. Dr. Sutherland asked for opinions as to diagnosis and treatment.—Dr. ABRAHAM was unable to offer a definite diagnosis, as the bronzing was very indistinct by artificial light.—The PRESIDENT cited cases of bronzing in which there was also debility in which the rest cure had been efficacious.—Dr. CAMPBELL POPE narrated a case of marked bronzing in which extensive disease of the spleen had been the chief lesion found post mortem.

Dr. SUTHERLAND also showed a case of General Paralysis in the Early Stage. The patient was a man aged thirty-three years who had some loss of power in the arms, partial loss of memory, slight tremulousness of the tongue, and inequality of the pupils. The knee-jerks were exaggerated, but this had not previously been noticed. He had been much exposed to the weather and was addicted to alcoholic and other excesses.—Dr. SEYMOUR TUKE said that he had no doubt that this case was one of general paralysis, though in a stage not often seen. He alluded to the frequency in which the disease arose in cases of untreated or badly treated syphilis.

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Mr. A. L. SCOTT showed a man aged twenty-eight years who presented an enormously Hypertrophied Heart. There were apparently five distinct bruits to be heard, and in addition there were signs of a thoracic aneurysm.—Dr. SEYMOUR TAYLOR pointed out that all the cardinal symptoms of aneurysm existed except tumour.—Dr. BRINDLY JAMES quoted a somewhat similar case.

Mr. BIDWELL showed a case of Salivary Fistula. The patient was a man aged forty-five years whose fistula had resulted from a parotid abscess. Two operations had been found necessary. The failure of the first was probably due to insufficient irritation having been set up. After the second operation considerable suppuration was induced and a complete cure was effected.—Mr. BIDWELL also showed a girl aged fourteen with a Tumour in the Left Half of the Tip of the Tongue. A distinct tumour was present and vesicles were seen on the surface, this appearance being probably due to lymphatic obstruction. He proposed to excise the tumour.—Mr. MCADAM ECCLES concurred in the diagnosis and treatment.—Mr. BIDWELL also showed a woman aged forty-nine years who presented large Gummatous Enlargements of the Upper End of the Right Radius and the Lower End of the Left Humerus.—Mr. MCADAM ECCLES suggested the possibility of the nodules being tuberculous.—Mr. BIDWELL said they were undoubtedly gummatous. The patient had passed through an attack of syphilis and had had gummata elsewhere which yielded promptly to specific treatment.—Mr. SWINFORD EDWARDS showed two cases in which he had performed Nephro-lithotomy and Litholapaxy respectively.

The following card specimens were shown:—

Mr. MCADAM ECCLES showed microscopic sections of a case of Rodent Ulcer.

Dr. SEPTIMUS SUNDERLAND showed Broad-based Glandular Polypi with a portion of the Cervix Uteri which he had recently removed.

MIDLAND MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—The Surgical Treatment of Uterine Myoma.

THE seventh ordinary meeting of this society was held on March 4th at the Medical Institute, Birmingham, the chair being taken by the President, Dr. UNDERHILL.

Dr. MELSON showed a case of Subconjunctival Dislocation of the Lens produced by a blow on the eye.

Dr. MALINS showed a specimen of Ruptured Tubal Gestation. The patient, a multipara, complained of abdominal pains two days previously. The rupture occurred at 2 A.M. When seen a few hours later she was collapsed and pulseless. The abdomen was opened, the broad ligament severed, and the cavity cleared of a huge quantity of blood. She died sixteen hours later.

Mr. HALL-EDWARDS showed specimens of Shadow Photography by means of Roentgen's Rays, notably some which showed that with sufficiently long exposure certain metals allow the rays to pass.

Mr. CHRISTOPHER MARTIN read a paper on the Surgical Treatment of Uterine Myoma. He discussed the indications for surgical interference and classified the various operations under three headings: (1) those which removed the myoma only—e.g., enucleation and abdominal myomectomy; (2) those which aimed at producing atrophy of the myoma—e.g., removal of the appendages and ligation of the uterine arteries; and (3) those which removed the uterus with the myoma (hysterectomy). Vaginal hysterectomy was recommended in cases of small myomata. The various methods of performing abdominal hysterectomy were briefly discussed. Mr. Martin then described the technique of panhysterectomy, and pointed out both the advantages and disadvantages of this operation. In conclusion he gave details of eight cases in which he had performed it.

MANCHESTER MEDICAL SOCIETY.

Radical Cure of Hernia.—Winter Health Resorts of Switzerland.—Exhibition of Specimens.

A MEETING of this society was held in the society's reading-room, Owens College, on March 4th, the President, Dr. HENRY ASHBY, being in the chair.

Mr. E. STANMORE BISHOP reported forty-three cases of Radical Cure of Hernia with no mortality. Nine cases were shown varying from two months to six and a half years since operation. None had worn a truss afterwards. Diagrams were shown illustrating his own and other methods. He expressed belief in the absolute curability of reducible hernia by surgical means so long as the operation was carefully suited to the case and a fitting time chosen for its performance. The necessity for differentiation between strangulated and chronic hernia as to their causation was pointed out and the importance of chronic bronchitis, stricture, gastric catarrh, and active hæmorrhoids in the causation of the latter emphasised. These causative complaints, in Mr. Bishop's opinion, were often not sufficiently appreciated, and if operation was performed during their existence relapse was invited. Lists were also presented of cases occurring in workhouses and gaols in which this theory of causation was worked out and justified. A case of very early operation (five weeks old) for strangulated hernia was also shown.

Dr. LEECH read a paper on Winter Health Resorts of Switzerland, giving a general account of the characteristics of each, with their respective advantages and disadvantages in the treatment of the various conditions for which people usually repair to Switzerland during the winter months.

Mr. WALTER WHITEHEAD showed three Calculi weighing five ounces which he had removed successfully by suprapubic cystotomy from the bladder of a man seventy-three years of age. The peculiar interest of the case depended upon the fact that the patient had suffered without recognition from all the prominent symptoms of stone in the bladder for about twenty years. For several years the patient had passed thick puriform urine and had been in the habit of passing for himself a catheter every half-hour night and day.

LIVERPOOL MEDICAL INSTITUTION.

A Case of Rhinoplasty.—Treatment of Corneal Opacities.—Turbinal Hypertrophy.

A MEETING of this society was held on March 12th, Dr. RICHARD CATON, President, being in the chair.

Mr. RUSHTON PARKER showed a man aged fifty-five on whom he had operated several times for Rodent Ulcer of the face involving the nose. At the final operation the disease was extensively removed, and there remained only the outer half of the skin of the left side of the nose, also that over the nasal bones. A large flap from the forehead, having a pedicle at the left eyebrow, was shaped to fit by a straight edge the skin on the left side of the nose, also forming a new columna and a large right ala extending into a gap existing on the cheek. Union by first intention occurred through the greater part of the flap. The result was very satisfactory. The granulating surface on the forehead was covered with two large Thiersch grafts from the thigh.

Dr. EDGAR STEVENSON read a note on the Treatment of Corneal Opacities by Electrolysis, which he claimed to be a great advance on any other method of treating this affection. He found that a current of a quarter of a milliampère applied to the cornea for one minute every other day gave the best results. Under cocaine the application was painless. He gave details of some cases considerably improved by the treatment and advocated its trial.—Dr. GROSSMAN said that he had tried electrolysis for more than a year in cases of corneal opacities, but in his hands the results had not been encouraging. In the young and in slight cases fair improvement was obtained, but in old people or in dense white scars the results were almost *nil*. He intended to continue his trial of electrolysis, but preferred circumscribed massage of the corneal spots.—Mr. C. G. LEE and Dr. T. STEVENSON made remarks on the paper.

Dr. JAMES WILSON read a paper on Diseases of the Nose and Naso-pharynx in which the galvano-cautery is applicable, and laid special stress upon the part which turbinal hypertrophy plays in some cases of deafness, tinnitus, headache, vertigo, asthma, hay fever, chronic cough, frontal neuralgia, and in some cases of epilepsy. He thought that otologists do not as a rule pay sufficient attention to the nasal cavities in some cases of deafness and tinnitus. They treat the ear and throat, but do not appear to regard the nose as a possible factor in causing deafness. He instanced a case in which a woman had been for several years under some of the most eminent ear and throat specialists for her deafness. None of them had ever examined the nose,

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whereas the key of the whole situation lay there in an enlarged turbinal, interfering with the equilibration of air in the tympanum; by removing the nasal obstruction he effected a complete cure. He thought that in future rhinology ought to receive more attention from the physician and general practitioner.—Dr. PERMEWAN was unable to follow Dr. Wilson as to the extreme importance of hypertrophy of the turbinated bodies. He drew attention to the excessive zeal in removing these bodies shown by some practitioners; in particular, he did not agree that there was any frequent connexion between hypertrophic rhinitis and tinnitus aurium. With regard to the nasal reflexes, whilst believing in the efficacy of local treatment in hay fever and asthma, he considered Hack's views, which Dr. Wilson had adopted, as much too comprehensive. As to treatment, there was nothing special about the action of the galvano-cautery, and he often preferred the use of chemical caustics, such as chromic acid and nitric acid.—Mr. BARK, Dr. STANLEY GILL, and Mr. HUGH E. JONES took part in the discussion.—Dr. WILSON replied.

EDINBURGH OBSTETRICAL SOCIETY.

Exhibition of Specimens.—Puerperal Pulmonary Thrombosis.—Forceps with Adjustable Axis-traction and for Occipito-posterior Positions of the Vertex.

A MEETING of this society was held on March 11th, Dr. A. BALLANTYNE, President, being in the chair.

Dr. MILNE MURRAY showed two specimens of Velamentous Placenta; Dr. J. C. KYNOCH, a specimen of Hydrosalpinx; and Dr. J. W. BALLANTYNE exhibited drawings of Frozen Sections of an Infant with Congenital Diaphragmatic Hernia, and also three specimens of Anencephaly.—Professor SIMPSON showed a large Fibroid removed for rapid growth; also a Burst Ovarian. He also gave accounts of three operations under cocaine aided by the ethyl chloride spray; one was for Abdominal Exploration, another for Tuberculous Peritonitis, and a case of Ovariotomy. In the last case the anæsthetic effect was not satisfactory, and he would not be inclined to use it again for a similar operation.

Dr. J. LOMOND LACKIE read a paper on Puerperal Pulmonary Thrombosis with an illustrative case. The patient was a strong, healthy primipara aged twenty-six. She enjoyed good health during pregnancy, but during the last few weeks of gestation suffered from considerable anasarca of the legs; there was no trace of albuminuria. The labour was easy and there was an unusually small quantity of blood during labour and after the separation of the placenta. The puerperium was practically normal. On the twelfth day she walked from the bed to a chair, a distance of twelve feet, and as she reached the chair she exclaimed she was dying, complained of shortness of breath, and collapsed on the floor. Her face became livid, she struggled for breath, and speedily became unconscious. Dr. Lackie saw her within six minutes of the onset, when she was dying; the extreme lividity of the face was very marked. Restoratives and ether were used, but she died two minutes later. On post-mortem examination the uterus was found to be normal in size, the fundus being just above the brim of the pelvis, and it was somewhat flabby. The cavity was normal and aseptic. There was no indication of clotting in the veins of the pelvis or in the femoral veins, at least in their upper part. All the organs of the body seemed healthy; but on opening the pulmonary artery there was found a thrombus, white, dense, and fibrinous, adherent to especially one side of the vessel, and extending into both branches and their ramifications for some distance. On the surface of this clot there was more recently coagulated blood. The right ventricle of the heart was also occupied by a recent dark-purple clot. There were absolutely no premonitory symptoms to lead one to anticipate this result. The small amount of blood lost during labour was unusual, as this condition seems to occur more easily in those weakened and anæmic from hæmorrhage. A few cases of recovery have been recorded. Ammonia and diffusible stimulants can be given and, if life is prolonged, inhalation of oxygen may be of service.

Dr. R. MILNE MURRAY read a paper on Forceps with Adjustable Axis-traction and on Forceps for Occipito-posterior Positions of the Vertex. The great majority of forceps operations are conducted in what may reasonably be regarded as normal pelves, the commonest conditions being inefficient power, resistant soft parts, or malformations of the head. The forceps should enable the operator to direct the force of traction so that no more is spent on the mother's tissues than is sufficient to overcome the friction between them and the head—that is, to extract the head with a minimum of force. It is now admitted that this principle is embodied in the Tarnier forceps. Dr. Murray a few years ago discussed the mechanical construction of this instrument modified for British use by Professor Simpson. The curve of the blades forms part of a circle with a seven-inch radius. The traction rods are fixed as near the fenestrum as possible and are carried down parallel with and close to the shanks, and then curved backwards so that the traction handle lies in a line which forms the tangent to the curve of the blades at its middle point. As far as the average pelvis is concerned these instruments leave little to be desired and are sufficient to meet all demands of axis-traction. But in a pelvis more or less abnormal this instrument cannot be varied to suit the requirements of the altered canal. If the line of traction is right for the normal pelvis it must obviously be too far back for the justo-minor or masculine pelvis, and thus some of the force exerted is spent on the sacral side of the canal towards which the line of traction tends. In certain cases of flat pelvis the forceps may be used, but traction made by the ordinary axis-traction forceps will tend to waste force on the pubis. It is clear that the line of axis-traction in this pelvis must be carried further back than in a normal pelvis. These abdominal pelves vary widely in their form, and Dr. Murray showed a pair of forceps whose line of traction can be easily varied within considerable limits. The forceps is identical in all respects with the instrument in use for some years. It is made entirely of steel and has the same curvature of blades. The traction rods are pointed to the blades in the usual way as near the fenestrum as possible. They then run down close to the shanks and along the back of the handles. The new instrument varies from the old that half-way down the back of the handles the rods turn back at a right angle for a distance of four and a half inches. The horizontal part of these rods is oval in section, and the upper one is marked into distances half an inch apart, which are numbered 0 to 7. The handle is applied to these horizontal portions by a block pierced to allow them to pass through, and this block can be fixed in any position along these portions by a binding screw. To this block is fixed a handle which permits motion in a plane parallel to the rods. It is attached by a hinge-joint which has an indicator fixed to it. At one place there is the mark "normal," and the numbers on the indicator correspond with those on the horizontal rod. If the handle is at "normal" it is an efficient pair of axis-traction forceps. To adapt the instrument to a pelvis whose inclination is less than normal it is only necessary to shift the block one or more divisions nearer the handle, while to adapt it to one whose inclination is greater than normal the block must be moved one or two divisions further from the handle. If the indicator is kept at the number corresponding to that at which the block is fixed on the horizontal rods, then the line of traction will always pass through the centre of the fenestrum. In a difficult case, instead of making a series of pulls with the line of traction in one position, as is necessary with the ordinary instrument, a succession of pulls may be made changing the position of the handle and the direction of traction until the adjustment is found which seems to have most effect in advancing the head. The forceps is simple in construction and easily cleaned. It has a wide range of action and its application is easy. The axis-traction forceps possesses one advantage over the older instrument that the swivel-joint by which the traction handle is connected with the rods in no way interferes with any natural tendency which the head may have to rotate in its passage through the canal. Provided that flexion is secured, this forceps should in no way interfere with the desired rotation. But forceps with a pelvic curve, while increasing flexion in occipito-anterior cases, undo flexion to the same extent in occipito-posterior cases. The straight forceps is advocated for this purpose, but it is difficult to apply the straight forceps to these cases in such a way that the instrument will not slip off, and rotation is not favoured. To meet these requirements Dr. Milne Murray has modified the ordinary forceps so as to flatten the pelvic curve to a radius of fourteen instead of seven inches. He has used this forceps in five cases. The head is caught sufficiently near the parietal bosses to secure a firm grip, which increases in intensity the more the occiput descends;

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the occiput is depressed and the swivel action of the handle favours the forward rotation as descent occurs. This forceps has also the new modification of traction rods applied to it.—Dr. HAULTAIN, Dr. J. C. WEBSTER, Dr. AITCHISON ROBERTSON, and Dr. J. W. BALLANTYNE took part in the discussion.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF SURGERY.

Ligature of the Subclavian Artery.—Leprosy.—A New Method for Localising Brain Lesions.—Cancer of the Breast.

A MEETING of this section was held on Feb. 21st, Sir W. THORNLEY STOKER, President, being in the chair.

Mr. CROLY exhibited a case of Ligature of the second stage of the Subclavian Artery, the vessel being tied in the second stage because the third stage was involved in the aneurysm. The wound had healed, but re-opened slightly, probably owing to a small ligature. The ligature was one of goldbeater's skin steeped in a solution of perchloride of mercury and warmed in a 20 per cent. solution of carbolic acid. He could not trace a history of syphilis.

Professor CUNNINGHAM exhibited a series of casts which had been taken from Living Lepers in the Lazaret of New South Wales, and had been sent to him by Professor Anderson Stuart of the University of Sydney. Two of the casts were taken from patients suffering from lepra tuberosa; the others from typical cases of lepra nervosa. Professor Cunningham read abstracts from the Parliamentary report, which showed that the Government of New South Wales was taking energetic measures to stamp out the disease, and concluded by referring to the announcement that Professor Kitasato had discovered that leprosy was capable of cure by inoculation.—Mr. DALLAS PRATT said he had seen 300 cases of leprosy in Norway. On the question of infection, he thought a person could contract leprosy after a long residence (say, five years) in a place where the disease existed.—Mr. ROBERT COX observed that leprosy was unknown amongst Europeans and foreigners living in China.—Surgeon-Major DALY said that he had never seen a case of leprosy among the officers and men in India.

Mr. ROBERT COX read a paper on a New Method for Localising Brain Lesions and exhibited the necessary apparatus for its employment. He pointed out that there was need for a more perfect method of locating the important areas of the cerebral cortex on the overlying surface of the scalp, seeing that most, if not all, of the methods generally employed are either limited in their scope or complicated in their application, while many give rise to error by the use of a standard measure—the inch or the centimetre—for varying surfaces. He thought the method which he was about to describe would be found devoid of these objections. For its use two things were necessary—(*a*) an instrument which he had invented and called a cerebro-graphometer; and (*b*) a diagrammatic map of a hemisphere of the brain, prepared from readings made by the use of the same instrument on the dead body and casts of the brain *in situ*. The instrument consists entirely of the mechanical device technically known as "lazy tongs," formed into a circle with two accessory loops, which latter are attached to the circle by their ends in such a way that they arch over it at right angles to each other. One loop bears the numerals, beginning at each end with 1 and ending in the middle with 10; while the other loop has the letters A and V in consecutive order from before backwards, that bearing T forming the junction with the circle behind. The map is made on a gnomonic projection, with the radii or longitudinal lines marked by letters, and the semi-circles or lines of latitude by numerals. In using the instrument it is necessary to extend it in all parts and apply it to the head with the rivet forming the junction of the lettered loop with the circle in front on the glabella, and the rivet marked V at the other end to the occipital protuberance; then press down the loop between these two points in the middle line, and close the circle round the head on such a plane that the numeral 10 will rest on the lettered band. The instrument is then in position, when to find any given point—say Broca's lobe—it is only necessary to consult the map or list of indices for the bearings, there given as "C4, left side," and place the 10 of the numbered loop on the C of the lettered loop, when the numeral 4 will lie over the part. Having thus shown the simplicity of the method, he proceeded to explain that it is applicable to all sized heads, and forms its own unit of measurement for each, thus eliminating the errors due to the use of a standard measure for a varying surface. The two fixed points taken, the glabella and the occipital protuberance, place the circle on that plane considered so important by Professor Fraser as bearing a fixed relation to all important parts of the brain. His opportunities of testing its accuracy were very few, but in those it gave excellent results, while with regard to Rolando's fissure perfection seemed to have been reached. In conclusion, he added that the instrument was simple, compact, durable, and capable of being rendered aseptic by boiling. Messrs. Arnold and Sons are the makers.—The PRESIDENT said that this ingenious instrument would doubtless prove of value to surgeons in mapping out the regions of the brain for operative purposes.—Professor CUNNINGHAM said that, from the point of view of the anatomist, the instrument had an interest for him. He contrasted it with an instrument invented by Professor Aredy of Moscow to the advantage of the former. He was glad that a gentleman who had studied in Dublin had invented such an instrument.

Mr. WILLIAM THOMSON read a paper on Cancer of the Breast, discussing the question of its curability by operation. He had shown a case within the past three months from which he removed an undoubted scirrhus seven years ago, and he had seen another some years since in which six years had elapsed without any sign of return. Two others are at present living two and a half years after operation; there was no indication of reappearance of disease. He advocated complete clearing of the axilla, of the fascia, and removal of portion of the pectoral muscles if these were at all suspected. He believed that cancer was curable in a fair percentage of cases when operation was early and thorough. — The PRESIDENT said that until he commenced to operate he had not accurate ideas as to the areas covered by the breast—an area more extensive than anatomists commonly supposed. — Mr. NIXON gave the history of a case he had operated on. For the seven and a half years during which the patient lived after the operation there was no manifestation of a recurrence.—Professor BENNETT referred to the necessity of endeavouring to discriminate between the cancers of the breast. He mentioned the case of a woman who suffered for twenty-three years from atrophic cancer and ultimately died from mere old age.—Mr. LENTAIGNE, Mr. FRANKS, Professor MCWEENY, and Dr. ALFRED SMITH also joined in the discussion.

ROYAL NATIONAL PENSION FUND FOR NURSES.—The annual meeting of this society took place at 28, Finsbury-pavement, London, E.C., on Thursday, the 12th inst., Mr. Walter H. Burns, the Chairman, presiding. In moving the adoption of the report the Chairman remarked that the year had been an uneventful one except as regards the continued record of unexampled prosperity. The proposals received from nurses showed an increase of 305 over 1894, while premiums amounted to £11,000 more than during the previous year. The total invested funds rose from £202,000 to £272,000, while the percentage of working expenses has been considerably reduced. Sick pay to the extent of £909 was distributed, while the Benevolent Fund, which exists in connexion with the society, gave away £400. The Chairman expressed deep regret at the great loss which the Fund had sustained by the death of Dr. Bristowe of St. Thomas's Hospital, who had been a member since the establishment of the Fund, mentioning that the vacancy had been filled by the election of Dr. Hawkins, also of St. Thomas's Hospital, that the council had been strengthened by the addition of the Hon. Walter Rothschild, Mr. E. Hambro, and Mr. W. S. M. Burns, all sons of present members of the council, and who, he hoped, would continue the traditions of management which their fathers would leave them. In conclusion, and as giving some idea of the extent of the benefits conferred by the Fund, he stated that upwards of £20,000 had been returned to nurses in cash, more than £3000 distributed in sick pay, that the pensions paid the nurses already amounted to £2363, that the Fund is now firmly established, and may rightly be considered a great national institution.

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Reviews and Notices of Books.

A Monograph on Diseases of the Breast, their Pathology and Treatment, with special reference to Cancer. By W. ROGER WILLIAMS, F.R.C.S. Eng., late Surgeon to the Western General Dispensary and Surgical Registrar to Middlesex Hospital. London: John Bale and Sons. 1894. Price 21*s*.

PROBABLY no member of the profession has laboured harder than Mr. Roger Williams to collect together a mass of information bearing on the ordinary facts regarding cancer and tumour formation generally. The present Monograph on Diseases of the Breast is an outcome of his researches with regard to this organ, and in addition there is placed at the disposal of the reader a large number of references to the literature of the subject, both recent and remote. The work is divided into twenty-five chapters, no less than nine of which are devoted to a study of cancer in its various forms. The opening chapter, on the Autogeny and Phylogeny of the Breast, though short, is particularly good; then follow pages on the secretory anomalies and morphology of the gland. Under the latter head perhaps a little more might have been said as to recent work concerning the structure of the large coiled axillary glands. When discussing the subject of erratic mammæ Mr. Williams adheres to the view that they are due to reversions to ancestral arrangements much more ancient than those reproduced in ordinary cases of polymastia. A series of very interesting cases is brought together to show the frequency with which paramammary neoplasms arise from supernumerary mammary structures, and they are used to support Cohnheim's view of the origin of neoplasms in belated rudiments of gland structure which have become sequestrated in adjacent tissues. Mr. Williams ascribes the phenomena of mammary hypertrophy to a withdrawal of the restraining or integrative force which regulates the growth and development of the body, and suggests that some instances of acute diffuse malignant disease of the breasts are an outcome of this form of hypertrophy.

In discussing the question of gynæcomastia the author, while mentioning that it was a well-recognised affection amongst the ancient Greeks, makes no allusion to its present geographical distribution or to its well-known frequency among the Cingalese.

We turn with great interest to discover the attitude taken up with reference to the pathology of cancer of the breast. The subject is entered upon with a well-written historical review, in which the rise and recent slight decadence of the cell theory are traced, and the present controversy between the cell theory and the germ theory is reviewed. Mr. Williams's inclinations are still in favour of the former, he regarding the process by which cancers and other tumours arise as a kind of abnormal gemmation. In discussing the germ theory of cancer he is scarcely fair to the exponents of this view. Among the strong *a priori* reasons for regarding the microbe theory of cancer as improbable he states "it is impossible to conceive a valid explanation (of the great resemblance to structure of a secondary growth to the primary tumour) without the presence of epithelial cells, capable of growth, multiplication, and organisation; these phenomena clearly imply that the disease centres in the epithelial cells themselves." But surely this is no argument against the microbe theory, for those who adopt that theory hold that it is the presence of the microbe within the cell which stimulates the latter to abnormal activity. Further, it is now admitted that the microbe believed to be the cause of cancer, if a protozoon, cannot be recognised and stained, cultivated, and inoculated by ordinary bacteriological methods; if it is not a bacterium, the quotation of the negative results obtained by adopting bacteriological methods of research does nothing to prove even the improbability of carcinoma arising through the agency of one of the protozoa. The chapter that follows deals with the morphology and general pathology of cancer and with the clinical features and treatment of the different varieties.

In discussing the sarcomata of the breast the author gives the "adeno-sarcomata" and the "cystic adeno-sarcomata" under the general heading of "sarcomata." The terms "adeno-sarcomata" and "cystic adeno-sarcoma" are bad ones and are being abandoned, and rightly so we think, by modern pathologists because most of the neoplasms described under these titles are really fibro-adenomata which have become cystic or are cystic from the first—they are not malignant in the true sense of the word. Indeed, usually the only sign considered to indicate malignancy in this class of growths is their local recurrence, and this results rather from want of free removal in the first instance than from true local dissemination of secondary growths. A rigid line of distinction should be drawn between these tumours and the true sarcomata which have become cystic, the latter being much rarer. Under the head of fibro-adenoma the author later studies fifty of these growths, the gross characters of which he states resemble those of the cystic sarcomata, although they seldom attain to such a large size. We admit that the subject of classification of these growths is one of great difficulty, and probably, if the cases recorded by the author were massed together apart from their present titles, no two pathologists would arrange them in the same classes.

The book closes with articles on Cysts of the Breast, on the Non-malignant Tumours of the Male Breast, on Mastitis Acute and Chronic, and on the Minor Surgery of the Breast. The work is illustrated by seventy-six plates, the great majority of them from other works, their source, however, in every instance being duly acknowledged.

We cannot conclude this notice without calling attention to the immense amount of labour that has been expended in the collection of references to illustrative cases—indeed, the book is a kind of review of reviews, and in half a score of instances picked here and there at random we have verified the correctness of the references. Though the paragraphs on treatment contain sound doctrine so far as they go, yet the chief value of the monograph will be as an index to the literature of diseases of the breast, and as such it should find its place in the library of every surgeon.

A Handbook on Leprosy. By S. P. IMPEY, M.D., M.C., late Chief and Medical Superintendent, Robben Island Leper and Lunatic Asylum, Cape Colony, South Africa. Pp. 116 and 37 Plates. London: J. & A. Churchill. 1896. Price 12*s*.

THIS is an excellent and timely book and really what it claims to be—a handbook. Within a short compass it gives a definite and vivid picture of leprosy such as is to be found nowhere else in anything like the same space. No theories as to its origin are gone through because everyone practically accepts the bacillus lepræ; and there is no discussion as to heredity, as so few believe in it now. It just contains the personal experience of the author and what he has seen and learnt in a wide and recent experience of the disease, and he has much of value to tell.

The plates, 37 in number, giving typical specimens of the four groups of leprosy from photographs, are in almost all cases well reproduced and explain themselves, but to prevent the reader missing any detail Dr. Impey has a short commentary on each photograph placed opposite to it calling attention to any important point. Sometimes attention is called to some small detail which, unfortunately, the "process" work has failed to reproduce. Most interesting are photographs of two patients (Nos. 3 and 4) with tuberculous leprosy who developed erysipelas, and photographs of the same patients after the attack (Nos. 35 and 36). The improvement

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shown is very striking. In the text Dr. Impey has some well-balanced observations on the effects of erysipelas in the tuberculous form of the disease. Whether his hopefulness is justified remains to be proved. "If one attack can destroy some bacilli, as it undoubtedly has in the cases produced, then it is self-evident that more attacks must destroy all. I believe one attack of facial erysipelas would destroy all the bacilli in the tubercle on that part of a person who has not had the disease for more than three years, a second attack would destroy the bacilli in the extremities if there were any located there; and thus I think by artificially producing two attacks of erysipelas in a recent case of tubercular leprosy the disease could be cured."

The book naturally treats chiefly of leprosy as found in South Africa. The last two chapters, on the possible modification in the present system of segregation and notification, are valuable.

The Science and Art of Surgery: A Treatise on Surgical Injuries, Diseases, and Operations. By Sir J. ERIC ERICHSEN, Bart., F.R.S., LL.D. Edin., Hon. M.Ch. R. Univ. Irel. and F.R.C.S. Irel., &c. Tenth edition. Revised by the late MARCUS BECK, M.S. and M.B. Lond., F.R.C.S. Eng., and by RAYMOND JOHNSON, M.B. and B.S. Lond., F.R.C.S. Eng. Illustrated by nearly 1000 engravings on wood. London: Longmans, Green, and Co. 1895. Price 48*s.*

FOR many years the two volumes comprising this work have been regarded by those engaged in the teaching of surgery as being the best text-books which we possess on the subject. The number of books which are required to be read for the increased number of examinations and the larger amount of knowledge required from the student has created a certain demand for smaller books on some of the more important subjects, such as Medicine and Surgery, and the demand has been met, but not altogether to the advantage of the student. He is tempted to learn enough surgery or medicine to enable him to pass his examination, and very often, we fear, never gains a good knowledge of his subject. In reading the present edition of the work, which we have done carefully, we are reminded of the changes which have taken place in the theory and practice of surgery during the seven years which have passed since the appearance of the preceding edition. These changes are almost too numerous to mention, but we may point out some of the numerous alterations which the work has undergone. From the preface we learn that nearly a third of the first volume was ready for the press, having been arranged before his death by the late Mr. Marcus Beck, and that much material was collected for the remainder of the present edition. Mr. Raymond Johnson completed the revision of the work and saw it through the press. Mr. Meredith has again undertaken the chapter on Gynæcological Surgery.

In the general remarks on operations the importance of the presence of sugar in the urine is more fully insisted on, ether is given precedence to chloroform as the general anæsthetic, its secondary effects are treated of, also its administration by the rectum. In the chapter on Special Amputations the method of amputating the leg with a single external flap, as recommended by Farabœuf, is mentioned, and for the first time due importance is given to the advantages of a modified Furneaux-Jordan amputation for removal of the entire lower extremity over the method by antero-posterior flaps.

The important chapters on Inflammation and Suppuration have been brought into line with more recent knowledge, and the observations of Metchnikoff, Leber, Gautier, and others receive recognition. Modifications are made in the methods of treatment recommended, whilst the part played by micro-organisms in the various processes is more clearly explained. In the chapter on Gunshot Wounds the effects of modern weapons on the tissues are given, especially those produced by the Lee-Metford rifle.

The chapter on Special Fractures contains several new illustrations, and some of the older methods of treatment, such as that of fracture of the clavicle by Ellis's apparatus, of fractured femur by the double inclined plane or by N. R. Smith's splint, are omitted, and more space is devoted to a consideration of the operative treatment of fracture of the patella. Dupuytren's fracture of the ankle is described for the first time. Sufficient attention is hardly given to the various forms of plaster of Paris apparatus in use at the present day in all but the most conservative cliniques; this is an important omission, for the amount of time saved by the immovable splints is a great factor in the successful working of a large modern hospital.

The chapter on Injuries of the Head does not quite come up to the present standard of our knowledge, and is in contrast with that on Injuries of the Spine, which has been rearranged and almost entirely rewritten; in this chapter the views of Thorburn are given, and the origins of the spinal nerves in relationship to the spines of the vertebræ as shown by Professor R. W. Reid are described and illustrated. Injuries of the Abdomen and Pelvis are treated of in the light of our more advanced knowledge, and the same may be said of the other subjects which help to complete the first volume, especially tumours. Actinomycosis has a section in this volume and is more fully discussed, and the chapter on Syphilis is more adequately illustrated than in the former editions.

The chapters which treat of the Various Diseases of the Joints and Bones have evidently been carefully revised and are an excellent summary of the more important views now held, and much obsolete material has been eliminated. It is hardly necessary to do more than mention the more important additions to this part of the work: the Results of Trephining of the Spine for Pressure Paraplegia from Tumour of the Cord or Inflammatory Products; the Symptoms and treatment of Septic Phlebitis of the Lateral Sinus secondary to Otitis Media Purulenta; Davies-Colley's Operation for Cleft Palate; results of Operations for Malignant Disease of the Larynx; Intubation of the Larnyx; Hydatids of the Lung and their Surgical Treatment. As might be expected from Mr. Johnson's lectures at the Royal College of Surgeons on this subject the chapter on Diseases of the Breast is one of the best in the book. The pages devoted to the subject of Hernia are less numerous than in other editions, owing to judicious condensation of material, whilst the present opinion on the subject of radical cure is clearly expressed: "Of the various operations which have been advised for the radical cure of hernia the only one which is practised at the present day is the open method." A description of Wood's subcutaneous operation no longer remains as a puzzle for the student. In the treatment of intestinal obstruction a description is given of intestinal anastomosis by Senn's plates, but no mention is made of the usefulness of Paul's tubes when it is necessary to open the bowel at once. The surgery of the abdomen has made greater advances than that of any other region of the body; much has, therefore, required to be added on the inflammations about the cæcum, especially those ensuing on diseases of the appendix. The surgical treatment of perforating ulcer of the stomach is considered as a new subject, also the excision of portions of the liver, cholecystectomy, and cholecystenterostomy. The articles on Excision of the Spleen and that on Cysts of the Pancreas are rewritten. Kraske's operation is described amongst the other methods of rectal excision. The chapters on Diseases of the Kidney and Bladder show traces of careful revision, and the suprapubic operation receives that recognition of its importance which the modern surgeon ascribes to it, whilst the operation of rectal puncture for relief of retention is merely mentioned. The use of the cystoscope is described, as also the endoscope, whilst the

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more recent opinions on prostatectomy, and castration in producing a diminution of size when the gland is hypertrophied are given. In the treatment of stricture No. 16 is given as the full size of the urethral instrument which may be ultimately passed. The treatment of varicocele is given in few words, there being no longer a description of several fanciful methods not free from danger. "Since the introduction of the antiseptic treatment of wounds the various methods which were at one time adapted for the subcutaneous ligature or strangulation of the enlarged veins have been superseded by the more certain plan of ligature and excision." The intra-peritoneal method of operating for uterine fibroid tumours is described as well as the extra-peritoneal. Pelvic suppuration is, perhaps, too briefly treated of in this edition, whilst the operation for ruptured tubal pregnancy is mentioned for the first time.

The volumes present several new illustrations which are useful additions and enhance the value of the work, whilst we note the omission of several of the old ones. Altogether the impression which remains with us is that the most marked improvement is in the scientific, especially the bacteriological, as contrasted with the practical part. We must, however, congratulate all concerned in the work on the production of a thoroughly sound and valuable text-book.

LIBRARY TABLE.

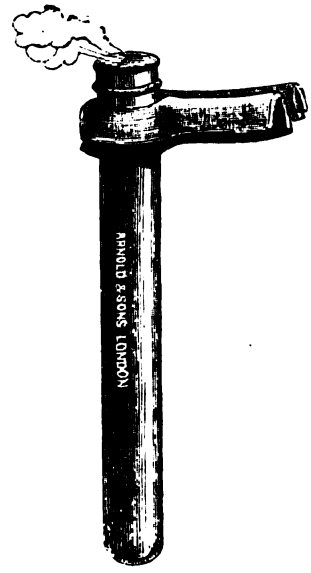
A Few Medical and Surgical Reminiscences. By AUGUSTIN PRICHARD, Surgeon. Bristol: J. W. Arrowsmith. 1896.—The experiences of an observant young man who has spent eight years in studying medicine successively in Bristol, London, Berlin, Vienna, and Paris cannot fail to include many diverting incidents, and when, after the lapse of more than fifty years, he gives some of them to his professional brethren the volume is sure to repay perusal. Mr. Prichard is a veritable link with the past; one of his first teachers was a surgeon who was appointed to the Bristol Infirmary a hundred years ago. His student career commenced in Bristol in 1834, and in 1839 he became a pupil of Mr. (afterwards Sir William) Lawrence, the famous surgeon to St. Bartholomew's Hospital, of whom, as well as of several other English and continental celebrities, he gives many entertaining anecdotes.

Myxœdema and the Thyroid Gland. By JOHN D. GIMLETTE, M.R.C.S. Eng., L.R.C.P. Lond. London: J. & A. Churchill, 1895.—Myxœdema, though a comparatively rare disease, is one of exceeding interest both for physiologists and practising physicians, especially those of our own country, for English medical science is entitled to almost all the credit of its recognition as a definite morbid state, the elucidation of its pathology, and the discovery of the proper treatment. As far back as 1859 Professor Schiff pointed out that the thyroid gland had functions useful to carnivorous animals. In 1873 the late Sir William Gull first called attention to myxœdema by bringing five cases before the Clinical Society of London, and in 1878 Dr. W. M. Ord described a further series of cases and proposed the designation myxœdema, a term which has secured universal acceptance. In April, 1881, Dr. George Murray initiated the treatment by subcutaneous injection of thyroid extract, and the success which he obtained soon opened the way to the use of thyroid preparations administered by the mouth. Mr. Gimlette's book can be recommended as a full and well-arranged exposition of our present knowledge of the subject; in particular, his chapters on the history, symptomatology, and treatment of the disease have the merit of being practical and explicit. Since its publication Mr. Victor Horsley has made practical investigation into the functions of the thyroid gland in herbivorous animals, and gave a *résumé* of his results to the Medical Society of London at the last meeting of that body.

New Inventions.

A SIMPLE STERILISER FOR SMALL INSTRUMENTS.

MESSRS. ARNOLD AND SONS have made for me a little apparatus for sterilising small instruments which is simple, portable, and efficient. I designed it for sterilising my trocars, described in THE LANCET of April 13th, 1895, but it will do for any instrument not larger than artery forceps, and can easily be made larger if desired. It is merely a large test-tube of polished white metal fitted with a rubber cap, the cap having an oblique slit in it to allow the escape of steam and to direct it away from the operator. The advantages of this over an ordinary test-tube are: 1. It is larger and much more durable; it also heats more rapidly. 2. It constitutes a steam chamber; hence the instruments need not be covered by water; four drachms are ample for five minutes' boiling. 3. The water does not bump out even when boiled fairly briskly, because it is in small quantity and checked by the cap. 4. After boiling the instruments can be left in it for a time, or carried about, without risk of contamination, though plain water is used. I do not find the opacity of the tube to be any real drawback. The upper end is gilt to protect it from the rubber. A simple and efficient holder consisting of a strip of carpet felt is carried in the tube; it should be used double, as shown. The tubes are sent out in small leather-covered cases such as are used for urinometers.



NEW TONGUE DEPRESSOR.

Messrs. Arnold and Sons have also made for me a modification of the ordinary bivalve tongue depressor which, I think, is an improvement upon the latter. The form is shown in the figure. It is longer, straighter, narrower, and stronger than usual; it opens beyond, instead of less than, a right angle, and shuts flat for the pocket. Being made of

polished white metal it will not wear yellow. Only one size is made, which does equally well for a baby or an adult. It is made either smooth or rough (see illustration) as may be preferred. I find this pattern much more convenient and effective than any other I have tried, and the same opinion has been expressed by others of more experience.

London Fever Hospital. GEORGE C. GARRATT.

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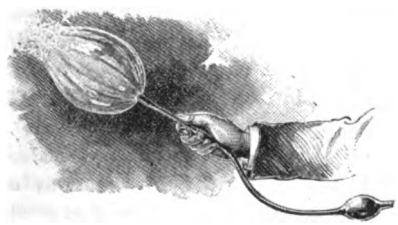
THE BALL NOZZLE SYRINGE AND ENEMA.

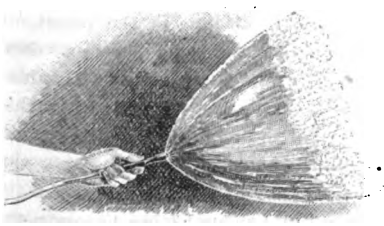
THE ball nozzle fire hose, the action of which was referred to as a scientific paradox, was introduced in America a short while ago. The end of the nozzle of the hose was made to terminate in a bell-shaped mouth in which was placed a ball, and on the water being turned on the ball, instead of being ejected, remained in situ, and the water issued forth in the form of an inverted cone. While the public were being entertained by learned explanations of the paradoxical phenomenon presented the manufacturers were practically experimenting with their invention, and applying it to syringes, enemas, and such-like instruments, with the result that an instrument

FIG. 1.



has been produced which is likely to prove of great advantage where thorough irrigation of a cavity is required. One advantage claimed for the invention is that while reaching every part of the cavity to which it is applied by reason of the way in which the liquid spreads out the force of the water is broken and there is consequently less likelihood of tender wounds being unduly irritated. On allowing the spray to touch the surface of the cuticle of the hand the sensation produced is that of lightly drawing a piece of velvet across it. Should a strong current be required it can of course be obtained by increasing the pressure of the water. As the illustration (Fig. 1) shows the water issues from the nozzle of the syringe in an ovoid form, but as applied to a

FIG. 2.



bath spray the water takes the cup or cone shaped form (Fig. 2) as in the fire hose. A peculiarity of this form of nozzle is that after the water has issued for some distance it breaks into multitudinous drops resembling rain and thus forms a convenient way of taking a shower bath. An objection to the ball nozzle syringe, but one that may be easily remedied by the manufacturers, is the introduction of metal into the interior of the nozzle. The address of the English company is the British-American Ball Nozzle Company, 52, Oxford-street, London, W.

A NEW ELECTRIC HÆMOSTAT.

AT the last meeting of the Birmingham and Midland Counties Branch of the British Medical Association Mr. Lawson Tait read a paper on his new method of dealing with the broad ligament pedicle by means of an electric current. The principle involved is the coagulation under pressure of the albuminous elements of the tissues at a temperature between 180° and 190° F., the temperature being exactly regulated by means of the known resistance of a given quantity of platinum wire enclosed in a box of non-conducting material and under the influence of a current accurately controlled by a rheostat or one of Lord Kelvin's balances. Complete consolidation of a sufficient length of pedicle can be secured in six minutes, this being effected whilst the toilet of the peritoneum is being carried out and the stitches inserted. No ligatures are required, and the same principle is being adapted for arrest of oozing from adhesions and for dealing with the uterine connexions in complete removal of the organ. Doubtless the new hæmostat will find many other fields for its application. It is being made by Messrs. Philip Harris and Co., but some weeks must elapse, we are informed, before it is ready for the market.

NEW PORTABLE ASEPTIC VAGINAL IRRIGATOR.

WE have received from Messrs. Salt and Son, of 69, Corporation-street, Birmingham, a new form of irrigator made by them at the instance of Mr. W. Edelsten Bracey, L.R.C.P., L.R.C.S. Edin., which would appear likely to be of great value to obstetricians and surgeons. An irrigator is often very desirable at times when its place has to be taken by other means owing to the inconvenience of carrying about a large receptacle for fluid with tubes and taps. The irrigator made for Mr. Bracey consists of five deep rings so accurately fitted to one another as to be water-tight when pulled out and filled with fluid. When open for use its capacity is two and a half pints. When closed the tube is unscrewed from the bottom of the douche and coiled round inside, and the whole is covered by a metal cap fixing by a catch to the projecting floor of the instrument. The size of the irrigator when closed is 2¼ in. high and 5 in. in diameter. Almost any antiseptic fluid can be used in it, and it admits of being perfectly cleaned by boiling the whole instrument. Its portability renders it an obvious advantage for operations in private houses. It can conveniently be carried in a midwifery bag, and does not crack or dry or admit air into the uterus as an ordinary indiarubber syringe may do. The cost is but little more than that of one of the usual construction, and from the above-mentioned advantages it appears to be a welcome addition to the obstetrician's equipment.

FIG. 1.

FIG. 2.

INTER-HOSPITAL FOOTBALL.—In the final tie, played on Wednesday last at Richmond, for the Hospitals Challenge Cup (Rugby Union rules) St. Thomas's beat St. George's by three tries (nine points) to a goal (five points).—At Leyton, on the same day, St. Bartholomew's beat St. Mary's in the final tie for the Hospitals' Association Cup by three goals to one.

AWARD OF SCHOLARSHIPS AND PRIZES TO THE STUDENTS OF THE BRISTOL GENERAL HOSPITAL.—At the annual meeting of the Bristol General Hospital, which was recently held, the secretary stated that the following prizes and scholarships had been awarded to students at that hospital:—the Clarke Surgical Scholarship of £15 and the Sanders Scholarship of £22 10*s.* were awarded to Mr. H. J. Bodman. The Lady Haberfield prizes of £14 8*s.* each to Mr. R. G. Johnson and Mr. A. Coleridge. The Martyn Memorial Pathological Scholarships as follows: Mr. J. H. Bodman, £5; Mr. G. B. Price, £5; Mr. W. Smith, £5; and Mr. F. Anthony, £4. The Committee's Gold Medal was gained by Mr. J. H. Bodman and the Silver Medal by Mr. W. M. Willis.

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THE LANCET.

LONDON: SATURDAY, MARCH 21, 1896.

AT the ordinary meeting of the Council of the Royal College of Surgeons of England, held on the 12th inst., the question of the direct representation of the Members of the College on the Council was under discussion for about two hours. The result of the debate was that the following resolution[1] was carried by a small majority: "That, as the members of this Council represent the body corporate of this Royal College, and consequently its Members as well as its Fellows, it is the opinion of this Council that no further representation of the Members is desirable." Very little significance can be attached to this temporarily adverse decision for two or three reasons. In the first place the meeting of the Council was not a full meeting, two or three members being unavoidably absent, and it so happened that the absentees belonged to the majority by which the report of the deputation committee had been rejected at the previous meeting of the Council in February.[2] Secondly, opinion in the Council upon the subject of the direct representation of the Members of the College on the Council has now been shown to be very evenly balanced, one or two votes more or less on either side sufficing to turn the scale. Thirdly, those who are opposed to a just and necessary concession to the Members of the College hold their opinions with an intensity and probably express them with a fervour which does not animate either the thoughts or utterances of those who, after much careful reflection, have come to the conclusion, it may be, against their own predilections, that the time has arrived for the recognition of the Members as a constituent body, and for the adoption towards the Members of a policy of conciliation and cultivation of their interests which is the very antithesis of that which has characterised the Council in the past. It requires little imagination to realise the antagonism which the thought of Members of the College sitting upon the Council must arouse in the minds of hospital surgeons accustomed to consider the College as made for the pure surgeon and all the offices and emoluments of the institution as their own peculiar heritage. To them for a long while the Members of the College were a lower order who, when they obtained their diplomas, received more than their *quid pro quo* in exchange for their fees, who had no right whatever to dream of electoral privileges if they neglected to acquire the Fellowship of the College, for whom it ought to be a sufficient advantage to be liable to be deprived of their diplomas if they violated the by-laws regulating professional conduct, and who were scarcely worthy of notice save when exercising their chief function of calling in the hospital surgeon to private consultations. For all collegiate purposes they were anathema; for consultative purposes they were highly discriminating and intelligent. Rather more than ten years ago, when this question of the direct representation of the Members of the College came to the front, these views about the Members so strongly prevailed that the Memoranda of the Council issued in reply to resolutions passed at the meetings of the corporation were described as having been unanimously adopted: after ten years of agitation and discussion a resolution adverse to the Members' claims is passed by less than a majority of the whole Council; and it is extremely doubtful whether there is a majority at all, accidental circumstances having for the moment given a preponderance to the opposing side.

What are the arguments upon which reliance is placed? We are unable to give those which were actually used in the Council chamber, but we are acquainted with one or two on which reliance is sometimes placed and one is contained in the resolution itself. It is said that the present constitution of the College, by which the whole of the electoral rights are conferred upon the class of Members called Fellows, was established more effectually to promote and encourage the science and practice of surgery and that it is this promotion and encouragement which forms the main function of the Council. It is implied that the direct representation of the Members of the College on the Council would not only not conduce to the advancement of surgery, but would tend to its discouragement. It is difficult to see how the addition of a few representatives of the Members of the College who are engaged in the daily practice of the art of surgery could have any such effect, and still more difficult if the Members of the College are represented by Fellows of an order which was created for the purpose of promoting the science and art of surgery. The fact is that many changes in the constitution have been made ostensibly for the same purpose. No doubt in their time the Barbers were incorporated with this view, and the Barbers and the Surgeons were united for this end, and the union of the Barbers and the Surgeons was dissolved with exactly similar objects. Then in 1800 the Corporation of Master Governors and Commonalty of the Art and Science of Surgeons of London having become obsolete and being dissolved, a College of Surgeons was established by a Royal Charter, with a very close constitution, for the due promotion and encouragement of the said art and science. In 1822 it became expedient, in order more effectually to promote and encourage the study and practice of surgery, to grant the College further powers and privileges and to enable it to exercise and enjoy the right and privilege of having a mace and of causing the same to be borne by such officer as should be appointed for the purpose. In 1843 the close constitution which the promotion of the art and science of surgery required in 1800 gave way for the benefit of surgery to the *régime* of the Fellows. In 1852 some restrictions were removed and changes made on the ground of expediency. In 1859 the dentists were taken under the wing of the College to provide for the due qualification of dentists. In 1888 various alterations were effected, including the permission for the Fellows to use voting papers at the election of members of the Council, and all on the ground of expediency, without reference to the promotion and encouragement of the science and art of surgery. Looking

[1] THE LANCET, March 14th, 1896.
[2] Vide THE LANCET, Feb. 22nd, 1896, p. 495.

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at expediency alone we see abundant reason to recognise and grant the claims of the Members to representation on the Council. The Council would obtain the cordial support and sympathy of an immense constituency, would necessarily acquire more power and influence both with the public and the Legislature in all questions which are continually arising concerning the position of the Fellows and Members employed in the service of the State, and be able to do more than hitherto it has done to elevate the profession in the social scale. Apart from the claims of justice arising from the excessive payments made by the candidates for the Membership of the College it is expedient that the Members of the College should have a voice in questions relating to education, examination, ethics, discipline, expenditure, Bills before Parliament, and other matters. But even if the interests of surgery alone were considered it would be easy to show that the promotion of the science and art would be secured more readily and effectually by concession than by obstinate resistance to the laudable and legitimate aspirations of the Members. With a disaffected constituency the number of candidates for the Diploma of Membership may be expected to dwindle, and it will dwindle more rapidly on account of the competition of the Universities. Will it be for the advantage of surgery that the control of surgical education and examination should pass out of the hands of the Council of the College, the body best fitted to superintend it? The museum, the library, and the College lectures will not have their usefulness in the diffusion of professional knowledge increased by the gradual decadence of the constituency. So that on every ground that can be named it is for the advantage of the College and the Council to settle the question on that reasonable and moderate basis to which opinion amongst the Fellows, and in the Council itself, points with unmistakable clearness.

A third reason alleged in opposition to the representation of the Members of the College on the Council is embodied in the resolution passed by the Council itself. It is stated that the Council represents the body corporate of the Royal College, and consequently its Members as well as its Fellows. The resolution is scarcely one to reflect honour or credit on the Council. It is based upon a quibble. The word "represent" is used in two different senses—one in relation to the Fellows, another in relation to the Members. Can anyone say that the Council represents the Members in the same way, in the same degree, or in the same sense as those in which it represents the Fellows? In the case of the Members the representation is indirect, and so indirect as to amount to an infinitesimal quantity. The Council has duties towards the Members which it can hardly be said to fulfil, but it does not represent the Members at all in the way in which electors and the Fellows of the College are represented. The Members ask for direct representation. The Council replies,—You are already represented indirectly, therefore no direct representation is, in the opinion of the Council, desirable. In the closest of the old boroughs the members represented all the persons in the borough, but was this method of representation considered as a sufficient answer to the demand for Parliamentary reform? The fallacy involved in the resolution is too obvious to need further comment, and we should not be surprised if the good sense of the Council should lead to the resolution being rescinded at an early date.

APART from the unhappy effect of the action of the London School Board in the matter of medical certificates supplied to the children attending the board schools the question of medical certification is one that is deserving of being viewed in its general aspects. The duty of medical certification is one of the most serious functions of medical practitioners. Few other professions have anything comparably serious to do in the way of certificates. We certify vaccination; we certify fitness for life insurance or otherwise; we certify fitness for admission into friendly societies, and the sickness which entitles members to sick payments; we certify the cause of death on which burial without a coroner's inquest turns; we certify the existence of certain specified infectious disorders which make the patient's house amenable to a measure of supervision by the local authority, and render him or his parents liable to penalties if he breaks through a certain isolation imposed on him by law; and any two medical men certify insanity and practically consign a person to an asylum. Some of this certifying duty is required of us by law, some of it is imposed on us by circumstances; a part, again, is required by voluntary associations which can take good care of themselves. A few of these even take thought for the profession and offer a fee in a measure proportionate to the gravity of the responsibility of the certifier as an expert. Others do not, but seem to regard the act of certification as a slight service to be thrown in with others scantily remunerated or remunerated by a petty fee, though the efficiency and faithfulness with which the function is discharged may mean much to a society whose savings may be counted by hundreds or thousands of pounds.

We need not say more to show the responsibility of the function of medical certification as viewed from our standpoint. What we have said may perhaps raise some slumbering qualms in the minds of those who so lightly regard and reward it. We shall be told that the work is often badly done. This is the retort with which we are confronted by all officials. Sometimes it is a judge himself who disparages medical certificates; sometimes it is an official in one of the great departments who declares that they are no real guide to the nature of the facts. Latterly the School Board has distinguished itself by an affront to the profession which has supplied it for twenty-five years with certificates gratuitously. It has appointed in one or more districts of London medical men—whom it means to pay—who are to go behind the certificates supplied to the Board by members of their own profession and this, too, at the instigation of a lay divisional inspector. It seems strange that medical men who can be trusted to sign certificates of vaccination, insanity, infection, and death should be dealt with in this fashion by the School Board. We are not concerned to deny that unsatisfactory certificates are occasionally received. We have heard evidence on this point from medical officials of departments without prejudice which we entirely believe. But this does not justify a great public body acting under an Act of Parliament contemning the medical profession which by other Acts

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is charged with similar and far more responsible duties of certification. Can it be thought remarkable that of more than 30,000 medical men all should not invariably act with perfect care and conscientiousness? We have no apology to make for a medical practitioner who by carelessness or by undue favour to his patient brings medical certificates into disrespect. On the contrary we should support any reasonable measure for bringing to light such faults. He who knowingly or without reasonable care writes a false or a misleading medical certificate commits an offence against both the public and the profession, and should be brought to answer for it before either the legal or our own tribunals. But we entirely refuse to believe that such certificates are so numerous as to justify discourtesy to the whole profession or even to one conscientious member of it. We insist that in the first instance every certificate should be assumed to be well founded and given in perfect faith. If any department or the School Board has any easonable ground for doubt or dissatisfaction a courteous communication of inquiry from its own medical officer will not be resented. In cases where fresh trouble is given and the first certificate is quite vindicated it seems but right that the writer of it should be rewarded for this additional trouble. Where the certificate is proved to be false or baseless or intentionally misleading we repeat that we see no reason why the writer of it should not be dealt with in a disciplinary way by his own college or by the General Medical Council. Medical men will not shrink from any reasonable exposure of bad work. A profession of over 30,000 which in 1895 had only one of its members erased from the Medical Register for infamous conduct is not likely to be afraid of any honest and courteous action on the part of any public body to guard itself from the abuse of false or frivolous certificates.

This question may seem to be a small one. But it is nevertheless one of immense importance to the Board School children, and therefore to the School Board, and it is one with regard to which the profession can make its issatisfaction felt without going to public meetings. Whatever the advantages of elementary education on its present scale, it cannot be denied that the schools of the Board constitute a serious culture-medium for the communication of diseases such as ringworm, scabies, diphtheria, scarlet fever, &c. It cannot be to the interest of the Board to belittle the question and to treat with disrespect the profession which has served it so long. After all, the profession must deal in this matter with the Board and not with the children. Medical certificates in defence of individual children may be left to the care of parents; but the certificates for the general protection of schools cannot be dispensed with, and the Board must treat the medical profession which supplies such certificates with justice and consideration.

LORD CROMER'S annual report on the finances, administration, and condition of Egypt for 1895 has been published at a very opportune moment. Couched in the most moderate language, with all statements supported and every assertion amply sustained by proof and argument, it is impossible for any impartial person to read the document without coming to the conclusion that British intervention in Egypt has been productive of enormous benefit to the country and its people. Not only is this the case with regard to financial matters. Contrary to what is often insisted on in certain quarters, money is by no means everything in the estimation of the men who are now devoting their best energies to an extremely arduous task. Justice, education, and sanitation, a worthy trio, have arisen like so many phœnixes from the ashes of their deformed and puny predecessors, whilst among other subjects to which unstinted attention has been devoted are the repression of slavery, the conservation of the unrivalled archæological monuments, the delivery of the fellaheen from the power of the money-lender, and the prevention of cruelty to animals. It is, however, perfectly permissible to regard the financial situation as an index of the prevailing prosperity. When England first intervened in 1882 Egypt was on the brink of bankruptcy; and during the four following years the "aggregate deficit" amounted to £E2,761,000. It was not until 1887, after five years of stringent control, that the labours of our financiers began to bear fruit. When the accounts of that *annus mirabilis* were issued it was found that there was a surplus of £E111,000; and, with one trifling exception, the balance on the right side has ever since gone on steadily increasing year by year in a manner little short of marvellous, so that Lord CROMER is now able to write: "The aggregate surplus of the last nine years, from 1887 to 1895, both inclusive, has been £E5,174,000."

Turning to matters more directly within our province, we find that from a sanitary point of view the year 1895 was chiefly memorable in Egypt on account of the, we trust, stifled cholera epidemic. This history of the outbreak is given by ROGERS Pasha in an annexed memorandum, to which we hope to refer on a future occasion, but Lord CROMER'S brief remarks must be quoted *in extenso*:

"I have the honour to enclose a copy of a report which Rogers Pasha, the head of the Sanitary Department, has prepared on the subject of the cholera epidemic with which Egypt has recently been visited. Up to the present time the epidemic has not extended rapidly. It is impossible as yet to say whether, as the weather gets hotter, it will assume larger proportions. In the meanwhile I cannot speak too highly of the energy and judgment displayed by Rogers Pasha and the officers working under his directions in their efforts to stamp out the disease. I cannot doubt that it is mainly due to their exertions that the progress of the epidemic has in some degree, at all events, been checked."

The caution exhibited by Lord CROMER is commendable, but, given a continuance of intelligent prophylactic action, there would seem to be no serious reason why the disease should become more formidable "as the weather gets hotter." Many grievously fatal outbursts of cholera have occurred in the winter amidst frost and snow, and there are observers who maintain that heat and dryness diminish the virulence of the cholera germ—at all events, for the time being. That people drink more water during hot weather, and that water-supplies are then more concentrated, are, of course, factors that have to be taken into consideration.

As regards sanitation in general there has been some progress, but not much. The cleansing of the mosques—a most important measure—is going on steadily, and the

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cemeteries are likewise being gradually improved. Most of the native burying-places in Egypt are undoubtedly "dangerous to public health," but by a recent law the sanitary authorities are empowered to deal with them. During the year the provisions of this law were applied in 213 cases. In spite of the enormous and increasing surplus it is apparently impossible to find money for several sanitary works of the greatest urgency. The savings exist, but owing to international complications they most unfortunately cannot be utilised. Lord CROMER'S remarks in this connexion are far from encouraging:

"Sanitation is still very backward in Egypt. The rate of progress must depend entirely on the amount of money which is available. I fear that, in view of the very heavy expenditure which would be involved, the project for draining the town of Cairo, which has for some long while been under consideration, will have to stand over for the present, at all events."

It is, however, some satisfaction to learn that the medical administration of the country is every year growing more and more efficient. In 1895 there were nearly 19,000 patients treated in the Government hospitals and the out-patient department, "both of the hospitals and of the dispensaries," was also greatly appreciated; 312,000 persons were successfully vaccinated in the course of the year, chiefly with calf-lymph from a newly established vaccine institute. "An excellent hospital for infectious diseases has been built in the immediate neighbourhood of Cairo. ..... The staff and material have now become almost inadequate to meet the demands made by the public for disinfection." Three provincial hospitals were completed during the year and a fourth is about to be commenced. A number of provincial towns have also been supplied with "proper slaughterhouses." On the whole, it is clear that with the inadequate means at their command the officials of the Egyptian sanitary department have accomplished a vast amount of laudable work and have contributed in no small degree to the permanent improvement of one of the most interesting countries in the world.

AN important piece of legislative machinery has at length been set in motion and the commencement of the first revolution, as it were, has been made by the introduction of a Bill by Lord JAMES of HEREFORD in the House of Lords last Monday providing for the better control and regulation of the water-supply of the metropolis and the surrounding districts. That the question of the municipalisation of the water undertakings would sooner or later have to be seriously considered might have been gathered from the keen interest which has been taken in this question since the meeting of the memorable Commission presided over by the Duke of RICHMOND thirty years ago. Sundry Commissions have since been held and dissolved, without, however, any definite step having been taken to transfer the water holdings to a public body. As to the action of the London County Council in this matter that body can at least be accorded the merit of persistently discussing the question, without, however, bringing it to a speedy and practical issue. The proceedings of the Council with regard to the future of the metropolitan water-supply have amounted to a shaking of the dry bones which, if it has accomplished nothing else, has certainly brought the urgency of the question very prominently forward. It is only fair to the water companies to state—and it would be well for the public to understand—that the proposal of the acquirement of the present undertakings by a public body is not the outcome of any maladministration on their part in the past, but because the requirements of "Water London" a few years hence will probably be of too serious and important and extensive a character to be properly trusted to an aggregation of private individuals. Charges of inadequacy of supply—but seldom, if ever, of quality—have, it is true, been brought from time to time against the companies. This has been especially the case in recent years when almost unprecedented conditions of weather have had to be contended with. We doubt whether administration under public control would under these circumstances have been less open to criticism. The frost of last year, followed by a remarkable drought in the summer, is a case in point. It will be remembered that the charges brought against the East London Water Company in connexion with these occurrences were serious enough to demand an inquiry by the Local Government Board, and the County Council went so far as to threaten proceedings against the company for failing to give its consumers an efficient supply. The inspectors appointed by the Local Government Board to inquire into this matter came to the conclusion that the deficiency of the supply was due (1) to an increased want of storage in the company's undertakings for which they had previously applied but which had been refused by the intervention of the Council; (2) to the want of storage provision in many consumers' houses; and (3) to the waste and leakage in the service pipes and to the excessive use of water for gardening purposes. In view of this report the Council decided at last Tuesday's meeting to discontinue the proceedings commenced against the East London Water Company. Briefly Lord JAMES'S Bill proposes the creation of a water trust or board of thirty members, of whom sixteen are to be appointed by the London County Council, two by the Corporation of London, two each by the County Councils of West Ham, Middlesex, and Essex, and one each by Croydon, Surrey, Kent, Hertford, the Thames Conservancy, and the Lee Conservancy. This clearly amounts to the appointment of a new municipal body in which the County Council has a large, and we think fair, representation. It is of course around the question of adequate representation that the discussion of the proposal will turn. The London County Council will be opposed to the scheme because this scheme does not accept the County Council as the only power to control the large areas included in five counties—Middlesex, Essex, Surrey, Kent and Hertford—outside the County of London but within "Water London." Any further concession as to a greater number of representatives of the London County Council on the new trust than is proposed would not be desirable, especially having regard to the fact that the increase in the water-drinking population will be by far the greatest outside the Council's jurisdiction. At present the County Council has quite as much work as it can efficiently do; and it is not a matter for regret, we think, that it is proposed

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not to place the future water-supply of London entirely in the hands of that body. Lord JAMES'S Bill may not be, and probably is not, free from blemishes, but we have his assurance that to any suggestions that may be made which would tend to the improvement of the Bill in making it a more workable and useful measure the Government would not turn a deaf ear, from whatever quarter of the House they might come. On the face of it we consider the Bill an honest and an earnest attempt at a satisfactory solution of a long-vexed problem. It is a temperate measure aiming at fair arbitration. In the interest of the millions of inhabitants of London and of the generations to follow we hope that the proposals embodied in this Bill will be carefully weighed and considered quite aside from petty and party differences of interested opinion, and that our legislators will unite without prejudice to promote a speedy and definite settlement of one of the most vital problems that has ever been before the Metropolitan public.

Annotations.

"Ne quid nimis."

THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

THE Fellows of the Royal College of Physicians of London will assemble on the 30th inst. to elect one of their number to the office of President for the ensuing year. The fact that Sir John Russell Reynolds does not desire to continue in the office gives additional interest to this election, which, according to old prescription, is conducted without any open nomination or direction. The choice of the Fellows is, therefore, one based on the principles of perfect freedom and spontaneity, and it is not unlikely that in the first instance many names will be selected of physicians deemed worthy by their associates to preside over the fortunes of the College. The office in itself is one of great dignity and also one which has become of late years more exacting in its demands upon the time and attention of its holder. Hence there are many considerations which may well urge with the Fellows in making their final selection, whilst the method of election is such that the result is likely to reflect the general opinion as to the personal fitness and worthiness of the chosen successor to the chair of Linacre. Amongst the many names which have been mentioned that of Dr. Wilks (who, we are informed on reliable authority, would certainly not decline the honour if it were offered to him) occupies a foremost place. He has been a Fellow of the College for forty years, and his distinguished career, as well as his personal character, mark him out as one whom all would gladly see in this coveted position. It may be recalled that in 1893 Dr. Wilks was next to Sir J. Russell Reynolds in the ballot which placed the latter in the chair.[1] The names of Dr. J. E. Pollock, Dr. W. H. Dickinson, Sir W. Roberts, Dr. Hughlings Jackson, and Sir W. Broadbent are those of other Fellows who would well maintain the dignity of the office, and whose selection would be cordially received by the profession which regards, and rightly, the titular head of the Royal College of Physicians of London as the leading representative of British Medicine.

THE ASHANTI EXPEDITION.

RECOGNISING the importance of the recent Ashanti expedition from a medical point of view, we arranged with our Special War Correspondent to send us from time to time letters from the front regarding matters of sanitary and cognate interest connected with the expeditionary force. These letters, we have reason to believe, were widely appreciated by our readers, but they were necessarily disjointed in consequence of the rapid forward movements of the troops and the speedy termination of the Kumasi campaign. To a certain extent also they were somewhat meagre on account of the very limited weight of correspondence allowed to each individual on the line of march. We intend, therefore, in future issues of THE LANCET to deal with the subject more consecutively and exhaustively. The articles will be illustrated by drawings made on the spot, and the series will commence with a discription of the home preparations for the expedition, including the outfitting of the *Coromandel*. The next two articles will deal with the troops in health, with remarks on the climate and soil, the weather, and the water-supply. The feeding of the troops will also receive attention. In subsequent articles dealing with the troops in sickness we shall endeavour to give a true account of the nosology of the campaign, with special reference to malaria. An account of the hospitals and their construction and efficiency and of the ambulance arrangements will, we trust, prove to be interesting to our readers; and the series will conclude with a comparative summary, noticing past campaigns and the precautions to be taken in future campaigns, finally an hypothesis as to what might have happened had the Army Medical Staff done their work less efficiently.

OUGHT NOT JUDGES AND MAGISTRATES TO HEAR CERTAIN CASES IN PRIVATE?

THE Lord Chancellor has brought in a Bill providing that where a judge of the High Court is of opinion that any evidence given at any trial before that judge is of such an indecent character that the publication thereof is likely to be prejudicial to public morality, the judge may order that such of the evidence as is specified in the order shall not be published; and any person who publishes, or is a party to the publication of such evidence in contravention of such order, shall be guilty of contempt of court and punishable accordingly. This is all very well, though, in justice to the daily press, it ought to be stated that the indecency published is a mere drop in the bucket compared with the indecency which is severely suppressed. Many of the cases of criminal and indecent assaults coming before magistrates are not even mentioned in the daily press; while the reports of such cases at the assizes are limited to the statement that A. B. was convicted of a criminal or indecent assault upon C. D., and was sentenced, &c. There is, however, a reform which we should like to see carried out. The usual practice is, when any of these cases come on for hearing, for the clerk of assize or the usher of the police-court to call upon all women and boys to leave the court, which order is always rigidly carried out, and very properly so. But in the interests of public morals, in the name of humanity, and for the credit of human nature, may we not ask that judges, recorders, and magistrates should go a step further and hear such cases in private? Is any good object served by turning out the women and children, but allowing to remain in court as auditors and spectators a number of men who could hardly give a valid reason for their presence there? Nothing can be more painful for the female witness, too often a mere child, to have to stand up in the witness-box, the solitary representative of her sex in court, and to give details of the most delicate character before a number of coarse-minded men. Some regard, too, may surely be had to the feelings of the magistrate, of his clerk, and, last, but by no means least, of the medical witness. For, however "case hardened" a medical practitioner, and especially a police surgeon, may become, he does not necessarily lose all sense

[1] See THE LANCET, Dec. 9th, 1893, p. 1481, and Dec 16th, 1893, p. 1521.

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of modesty or of delicacy, and the duty of giving evidence in these cases is almost more unpleasant than any other he has to perform. After all, what we ask is only what has been done before by magistrates. We are informed that the late Mr. Bruce, the stipendiary magistrate of Leeds, heard the evidence in a case of child murder in his private room. We are also informed that in two recent cases of a grossly indecent character Mr. Stewart, the stipendiary magistrate of Liverpool, ordered the court to be cleared of all persons except those actually engaged in the case. It is clear, therefore, that magistrates possess the power, and we see no reason why it should not be put in force. Whether judges possess a similar power or not we do not know. If they do we hope very shortly to hear of its being enforced; if they do not, the sooner such power is obtained the better it will be for public morals and for the honour of human nature.

THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

WE understand that Mr. Chaplin has filled the vacancy on the staff of medical inspectors of the Local Government Board by promoting Dr. Samuel W. Wheaton from the post of temporary to that of permanent inspector. Dr. Wheaton was appointed on the temporary staff early in 1892 and has served the department ever since. He assisted in the Cholera Survey, and we have from time to time, in commenting on some of his printed reports, noted the ability with which he has dealt with certain obscure etiological points—as, for example, the relation of minor throat ailments to developments of diphtheria which have been under his investigation. We are informed that no further vacancy arises on the staff, since the appointment to the temporary post has been also disposed of.

ROLLING-PINS AND DYSPEPSIA.

IN the days of my youth, writes an elderly correspondent, there was no kitchen implement in more constant demand than the rolling-pin, and one of the principal accomplishments on which our good old-fashioned housewives used to pride themselves was the fabrication of light pastry. It was popularly supposed that in order to be easy of digestion all dough or paste intended for consumption should first be thoroughly kneaded and then rolled and re-rolled for a very considerable period of time. In fact, so lengthy and laborious was the process that, in figurative language, the excellence of the product was said to be measurable by the amount of elbow-grease devoted to its manufacture. Nowadays, continues our culinary *laudator temporis acti*, all this has been changed. It is true that rolling-pins still exist (though the name has disappeared from at least one popular dictionary), but, alas! how shorn of their dignity and importance. Formerly a rolling-pin was a skilfully constructed instrument, of suitable weight, and accurately balanced; but now that hurry and superficiality are paramount, any round piece of wood will do. Thanks to specially prepared flours and the patent baking-powders, whose name is legion, the lump of imperfectly kneaded dough is simply flattened out to the requisite thickness, and then without further manipulation incontinently utilised in the production of pie, pudding, or tart, as the case may be. The grandmothers of the impetuous dames who now preside over the preparation of our food were wont to impart varying degrees of elaborateness to their paste, having regard to the species of "kickshaw" it was designed to surmount, subtend, or encircle. As a rule, the crisper the product was to be, the more protracted was the use of the rolling-pin; but not even in the case of a [illegible] "roly-poly" would the doughy envelope have been subjected to the brief, not to say contemptuous, treatment now indiscriminately employed for all kinds of pastry. Never by any chance do we meet with properly made pie-crust; the delicious toothsome morsels that left our mouths unclogged and were perfectly amenable to our gastric juice are no longer to be had for love or money. The airy *vol-au vent*, the crisp and saccharous tartlet, the delicate puff, and the imponderable dumpling, all—all have vanished into the limbo of forgotten excellences, leaving behind them naught save the fond memories of an irrevocable past. There can be no doubt, says our eloquent if melancholy complainant in conclusion, that dyspepsia, with its ever-lengthening train of woe, is largely due to neglect of the rolling-pin. Like everybody else, our cooks are in too great a hurry. They grudge the time, he urges, which their forbears lavished so freely, and hence one of the most potent sources of that ever-increasing degeneracy of our race to which attention has lately been so prominently directed. We need scarcely say that we cannot accept our correspondent's views in their entirety, but there may possibly be some foundation for his invective. The production of wholesome pastry is unquestionably a serious matter, and if the neglected rolling-pin be in reality a cause of deterioration the sooner the attention of the wielders of that implement is called to the fact the better it will be for all consumers of the delicacy. In a general way cooks are undoubtedly conservative, but we are inclined to believe that rolling-pins have gone out of fashion.

"RETURN CASES" OF SCARLET FEVER AT BIRMINGHAM.

A CASE which has just been tried in the Birmingham county court raises anew the question of the so-called "return cases" of scarlet fever. A carpenter named Alfred Keegan removed his child from the borough hospital, at the request of the hospital staff, six weeks after his admission for scarlet fever, and he declared that the child was evidently not well on his discharge, that he still had some desquamation in progress, and that there was a sore behind one ear. Other children were soon attacked in the man's household and one child died. On the facts brought before them the jury awarded the plaintiff £50 and costs, adding, however, that they cast no blame or imputation on the resident medical officer. One piece of evidence was clearly novel both to the county court judge and jury—namely, that in which it was asserted that the condition of safety for discharge from a scarlet fever hospital is to be judged, not so much by the existence of a few patches of desquamating epithelium, as by the condition of the throat, nose, and ears. In this view we on the whole concur. Epithelium as a source of danger in the finally convalescing state of scarlet fever would probably never have attained the importance which is attached to it had it not been for the fact that it is a something that is visible and tangible, whereas the process of multiplication of the specific organisms of the disease which sets in anew with a recrudescing sore-throat is a process that is not obvious to the naked eye. And it is such recrudescence affecting the throat, nares, fauces, and at times the ears which is by far the most important element that has to be judged in the matter of convalescence from scarlet fever and freedom from infection. "Return cases" of scarlet fever in households are probably more due to this cause than to any other; but at the same time these cases still remain involved in a good deal of obscurity. Indeed, it is certain that in our present state of knowledge they do not appear capable of being entirely avoided, even where precautions are taken which are altogether exceptional in their stringency. In the case under consideration we would add that if there really were some desquamating epithelium and a sore behind the ear at the time of discharge it would have been better to have

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detained the patient somewhat longer. A sore behind the ear is probably quite different from one in the ear, and the dead epithelium may have been perfectly harmless. But until we know that the specific organism of scarlet fever is not to be found in such epithelium, or that when found there it is incapable of multiplication when received on a fresh soil, it will be safer to regard a desquamating patient as still potentially capable of distributing infection. Indeed, from the evidence we gather that the medical officer to the hospital holds the same view, and that his contention was that, as the result of four examinations of the child, no such manifestations were found on him prior to discharge. Indeed, our object in referring to this case is mainly to indicate how great are the difficulties with which the most careful of hospital authorities have to contend in dealing with the chance of the occurrence of "return cases" of scarlet fever in the homes of those who quit their hospitals after every effort has been made to secure complete freedom from infection. The whole subject calls for special study as to the influences which tend at one and another time to increase the chances of the occurrence of such attacks.

HYPNOTISM AT THE ROYAL AQUARIUM.

A MORE horrible exhibition than that lately undertaken at the Royal Aquarium, in which a man was "buried alive," can hardly be imagined. A man was hypnotised, and after being sealed up in a stout casket or coffin was consigned to a grave 9 ft. deep before an interested audience. Seven or eight feet of earth were then shovelled upon the body, a shaft being left open in order that respiration might take place, and also to allow the public to see the man's face during the time he was entombed. After six days of this the man was "dug up" and awakened before a crowd of people. It is difficult to imagine a more revolting experiment than this. Even granting that these trances have any use whatever—which we ourselves fail to admit—there can be no possible excuse for making them more horrible than they already are by burying the man. Any experiment it was desired to perform could have been done equally well by sealing the man up in the box without going through the details of burying him and digging him up again. Moreover, under such circumstances it is impossible to give him aid quickly should he need it, and, although accidents may be rare in hypnotism, their possibility is by no means to be neglected.

"PROTEST AGAINST THE INJUSTICE OF THE MEDICAL AUTHORITIES."

THE following card, which is said to have been distributed in the neighbourhood indicated, will be read with mingled feelings by everyone who has the dignity and welfare of the profession at heart:—

NOTICE.

DR. CROZIER, as a protest against the injustice of the medical authorities in permitting the continual canvassing of his patients by the agents, not only of medical insurance clubs, but of private medical men, wishes it to be made known that, in opposition to the medical club system, and as a substitute for it, he is prepared, in association with medical men in other parts of Paddington, to carry out the proposal made by himself in the interview in the *Paddington Mercury* of Feb. 29th—viz., to see all those whose incomes are within £2 a week at the rate of 6*d.* for medicine and children, 1*s.* for adults, and 1*s.* 6*d.* for visit and medicine.

Dr. Crozier will attend for this purpose at his consulting-rooms, No. 6, Lancefield-street, Queen's-park, between the hours of 12 noon and 1 P.M., and 8 and 9 P.M.

It is to be hoped that Dr. Crozier (who is a distinguished man in literary circles as well as a medical practitioner) feels no misgivings as to the course which he has allowed himself to take by way of what he calls "a protest against the injustice of the medical authorities." We are not concerned to justify the authorities in their slowness to censure touters and canvassers in the profession or to deny that practitioners will have a seeming justification for taking their own way if the authorities deny them all guidance. But that time has not yet come. The good taste of every practitioner is as strong a safeguard against the degeneration of methods of practice as any function of the medical authorities. Every practitioner who fails in this makes matters worse. We cannot think that Dr. Crozier's card will have any such effect on the medical authorities as to counteract its evil example.

SEASIDE METEOROLOGY.

MEDICAL literature is not as rich as it might be in works on climatology, and more especially is this so with regard to English climates; but recent years have seen an increasing interest in the subject, and from time to time the profession is enriched by records of observations made in regard to this important branch of medical science. A small paper—but one that bears evidence of careful observation and thought—on Seaside Meteorology in Winter in the English Channel appears in the Transactions of the Royal Scottish Society of Arts. In it the writer, Mr. W. G. Black, F.R.C.S. Edin., F.R.M.S., discusses the question why a certain "set of people frequent the coast resorts in the winter in these days of changing airs and scenes." It would perhaps serve no useful purpose to make extracts from so short a paper and it would be impossible to answer his questions in a few sentences. We therefore content ourselves with calling attention to the matter.

THE EAST-END MOTHERS' HOME.

WE have received the report of the East-end Mothers' Home for the year ending Dec. 31st, 1895. We briefly referred last year to some points in the management of the home that seemed to us to call for notice, and we regret to find that many of the features to which we then called attention remain as before. To begin with, on the front page of the report appear the words "supported entirely by voluntary contributions." Now this is either a true statement or the reverse. It surely conveys the impression that the whole expenses of the home are defrayed by charitable subscriptions. Again, in the paragraph devoted to the definition of the "design of the institution" we read that this is "to maintain in the east of London a home for the treatment of poor married women during childbirth *free of any charge to the patients* [the italics are ours], also for training midwives and nurses for attendance on the poor at their own homes." Yet it is definitely stated in the report that "women are now attended in their own homes at the small fee of 3*s.* 6*d.*" Without discussing the propriety of this arrangement, which is obviously open to abuse, to the disadvantage of the general body of practitioners in the neighbourhood of the home, it is clearly contrary both to the spirit and the letter of the design of the home as defined above, and also to the description of the home on the front page as being "supported entirely by voluntary contributions," using the words as they are used by other institutions appealing to the public for charitable support. We see that the home obtains a grant from the Hospital Saturday and Sunday Funds, and it appears to us contrary to the spirit in which those grants are made that the women attended at their own homes should be charged for such attendance. We observe that 230 women were delivered in the home during 1895, and that of these 4 died; we also notice that of 1586 women delivered in the home since it was opened in December, 1884, only 9 are said to have died. This goes to show how misleading such figures may be. To obtain a useful statement of mortality it is not only necessary to know how many actually died in the home, but whether any died among those who were removed from the home, either to their own homes or to some general hospital, as we are informed has been sometimes the case. It would appear from the figures

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quoted that about half of the total deaths occurring in a period of eleven years took place in the course of last year, which shows that either the mortality last year has been exceptionally heavy, or that, as appears to us more probable, the mortality for the preceding ten years has been in some way incorrectly stated.

THE PRIORY CHURCH OF ST. BARTHOLOMEW THE GREAT.

ARCHITECTS, artists, ecclesiologists, and medical men, especially St. Bartholomew's men, must take an interest in the well-being of the fine old building which, owing to the rapacity and carelessness of those who are dead and gone, is the sole remaining portion of the beneficent institution founded by Rahere which he saw with his own eyes. Much has been done to heal the wounds inflicted by the creatures of Henry VIII., but much still remains to be done. The choir has been restored to something like its former dignity, but some £1500 are still urgently needed to liquidate debts incurred for work already carried out. We would earnestly appeal to all medical men and antiquarians for help in the good work so well begun. In this church the founder of the oldest London hospital lies, and everyone interested in hospitals, especially those belonging to that great foundation, ought to respond to the appeal on this account. Subscriptions may be sent to the Rector, Sir Borrodaile Savory, 12, King-street Chambers, West Smithfield, E.C. Sir Borrodaile Savory is the son of the late Sir William Savory.

CRANIOTOMY FOR IDIOCY AND IMBECILITY.

IN the new semi-monthly journal *Pediatrics* an article appears on this subject which it is a little difficult to take seriously—at least, in some of its aspects. It is the work of Dr. Dana, and after enumerating the results in 81 cases in which the operation has been done—viz., 35 improved, 22 not improved, and 24 deaths—he endeavours to answer a series of questions—viz.: 1. What class of cases is thus benefited? 2. How much are they benefited and in what direction? 3. What is the kind of operation which secures the benefit? 4. What are the dangers of the operation? 5. How does the operation act? In reference to the first question Dr. Dana thinks two classes of cases are suitable for operation—viz., congenital idiots and a class in whom the mental defect is less obvious and who are more correctly described as imbeciles. Cases in which cerebral diplegia is associated with mental defects are not considered suitable cases for operation. The results are seen in the greater tractability of the children, and the improvement in speaking, swallowing, and cleanliness. The best operation he believes to be linear craniotomy with lateral branches, and the dangers, although the death-rate has hitherto been a heavy one, are now much reduced. But Dr. Dana's theory as to the efficacy of the operations, or, rather, as to the reasons for its occasional modified efficacy, is the part of the paper which it is not easy to take seriously. He believes that the operation, in so far as it is efficacious, is so because of its profoundly disciplinary effect upon the idiot. He says: "The operation of craniotomy upon children in institutions attracts the attention of nurses and medical officers, and the children get more care and more stimulating words and help in various directions. I would repeat, therefore, that it is in my opinion largely through its pedagogic influence that an improvement in these cases takes place, and that the operation is allied in its effect to a severe piece of castigation." Surely a stranger plea for an operation has never been brought forward! As we have said before, it is difficult to take the writer of such a statement seriously. If the operative procedure to which it refers were not already sufficiently discredited we think it could hardly survive such advocacy as it has in the paper under notice.

MEDICAL MUNIFICENCE.

THE hospital at Newport (Mon.) dates from 1867, its nucleus having been a dispensary which was established in 1839. It was enlarged in 1882 and 1887, and now contains fifty beds; but nevertheless it is inadequate to the requirements of the population, and as further extension of the premises is impracticable the managers have resolved to acquire a fresh site and erect a hospital containing at least eighty beds. The scheme is well supported, for Lord Tredegar, chairman of the present hospital, has presented a site consisting of three acres of land fronting the Cardiff road, while Dr. and Mrs. Garrod Thomas of Newport have munificently offered to contribute the sum of £5000 on condition that £15,000 over and above the value of the site shall be provided by other donors. At a public meeting held in Newport townhall, on March 11th, the liberality of these benefactors was warmly acknowledged, and it was decided that the new building should be called the Newport and Monmouthshire Hospital.

RAILWAY HYGIENE.

IF we are ahead of other countries in the matter of general sanitation it is perhaps possible that in certain branches of hygiene other countries are ahead of us, at any rate the public interest in the subject is far less apathetic. Thirty-four years ago we dealt in an exhaustive manner with the subject of the influence of railway travelling on health, and the articles when republished were welcomed by a wide circle of the travelling public, inasmuch as they suggested many much-needed cautions and substituted facts for the vague theories which then prevailed. Many needed reforms have since been made, but these do not keep pace with the ever-increasing railway traffic of the country. At the commencement of the year loud cries were raised by the public in the press concerning the inadequate light, warmth, and ventilation of the carriages on some of the railway lines, and we then added our protest to that of the public. At the last Congress of the American Public Health Association no less than four papers dealing with the matter of Railway Hygiene were read, three of which find a place in the journal of the association, and some of the points brought out would lead us to suppose that in this direction our American cousins are a good way ahead of ourselves. It is rightly pointed out that with regard to cleanliness the condition of the cars is dependent on those in charge of them, and it is gratifying to learn that there seems to be an increasing disposition in America on the part of the railway corporations to endeavour to see that the employés carry out the work entrusted to them in a proper manner. Of course the conditions of railway travelling in America are very different from our own, but when we remember the slovenly and careless way in which we have seen carriages cleaned on English lines we wish as much could be said for our own railway companies. As showing the remarkable advance that is continuing to be made in this direction, it is stated that the Wagner Car Company have instituted a school of instruction for all their employés in the prompt and safe handling of passengers and traffic. In a paper on the ventilation of railway coaches is a passage which is worth quoting: "Finally," says the writer, "it should be remembered that in all ventilating undertakings but one-half of the requirements are fulfilled when the most perfect apparatus conceivable is furnished. The excellence of a tool does not ensure the quality of its product. Quite as much depends upon the uses as upon th tool, and not infrequently a superior apparatus is made in

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its reputation to bear the burden of its operator's infirmities." He then goes on to say that the employés should be systematically trained, and the public educated to habits of cleanliness and their minds freed from the trouble-making notions and imaginings which prevail with reference to ventilation even among those boasting of culture. We quite agree, for herein lies the key to the whole matter. If the public possessed an intelligent knowledge of the laws of health they would immediately unite in demanding, with every chance of obtaining, a redress of the grievances from which they suffer.

A MIDWIFE POSING AS A MEDICAL PRACTITIONER

THERE is one point on which all are agreed—that the line between the midwife and the medical practitioner must be kept distinct. A case was investigated by Mr. Troutbeck at the Horseferry-road court, in which it appeared that one William Hinton applied to Dr. G. de G. Griffiths of the Medical College, St. George's-road, to attend his child, and that Dr. Griffiths, instead of going himself, sent the matron of the college, who described herself as a midwife. The child was dead when they arrived. Asked by the coroner if she attended medical cases the midwife answered, "Not as a rule," which seemed to imply exceptions. The jury censured Dr. Griffiths, for, as the coroner observed, when people applied for medical advice they were entitled to that of a skilled practitioner.

THE THIRD INTERNATIONAL CONGRESS OF DERMATOLOGY.

THE Third International Congress of Dermatology will be held in London this year from Aug. 4th to 8th inclusive. The meetings will take place in the Examination Hall of the Royal Colleges of Physicians and Surgeons, on the Victoria Embankment. Separate sections will be established for dermatology and syphilis, the meetings of these being held simultaneously. The scientific portion of the programme is practically complete, and the large number of British as well as foreign physicians who have testified their intention of being present will doubtless ensure the success of the Congress, of which Mr. Hutchinson is President. The fee for membership, which entitles to the volume of Transactions to be issued, is £1, payable to the hon. treasurer, Mr. Malcolm Morris, 8, Harley-street, London, W. The secretary-general, to whom all communications should be addressed, is Dr. J. J. Pringle, 23, Lower Seymour-street, London, W.

THE REMUNERATION OF CORONERS.

AT the last meeting of the Brighton town council a somewhat significant correspondence was read with regard to the fees paid to the borough coroner (Mr. J. E. Bush). Mr. Bush wrote to the town clerk suggesting a revision of the scale, and the following facts were laid before a committee of general purposes. At present Mr. Bush receives the statutory fee of £1 6*s.* 8*d.* for each inquisition, with mileage and other disbursements, which make the average cost of each inquest about £4. Mr. Bush asked that some allowance should be made in cases where, after inquiry, he does not think an inquest necessary and simply reports the case to the registrar, receiving no fee whatever. The coroner said that in Worcester a fee of 13*s.* 4*d.* was paid in such cases, and in Croydon, Newcastle-upon-Tyne, and Swansea a fee of 6*s.* 8*d.* "Other coroners inform me that it is almost their universal practice to hold an inquest in every case reported to them. If I were to adopt a similar practice my emoluments would be nearly doubled, but the expense to the borough would be similarly increased, which I wish to avoid if an equitable arrangement can be made." The town clerk, in his letter to the committee, said he had no doubt that the coroner would in many of the cases in question "be technically justified in holding an inquest." During the last five years, it may be stated, the number of inquests held and of cases investigated, but simply registered, was: 1891, 89 inquests and 100 cases of investigation; 1892, 87 and 85; 1893, 95 and 87; 1894, 106 and 58; and 1895, 100 and 77. In view of these facts and the candid statement of the coroner it seems scarcely satisfactory that the committee and the council alike were of the opinion that it is unadvisable to make any alteration. The town clerk, it may be added, recommended a fee of 6*s.* 8*d.*

THE MEDICO-ETHICAL SOCIETY OF BRADFORD.

THIS society, which has for some years been in a somewhat moribund condition, has become once more, from force of circumstances, an active agency in the professional life of the town. There has been a very large accession of new members, including a great proportion of the younger generation. At the general meeting held on March 12th there was a sweeping change made in the *personnel* of the old group of office-bearers. Dr. Hime was elected President, and will, we are sure, be an active agent in maintaining the highest standard of ethical and professional conduct. Among the questions which have been agitating the mind of the profession in Bradford and which have led to this revived interest in medical ethics are the great abuse of medical charities in Bradford, the club question, and, we regret to hear also, the alleged unprofessional behaviour of some of the senior members of the profession. Although names are freely mentioned in this connexion, it is to be hoped that the suppression of any irregularities will be effected without the necessity for any serious action by the Medico-Ethical Society; but it is evident that the younger members of the profession are determined that matters to which they object shall be settled on a basis of high professional conduct.

DISTURBING CEMETERIES.

A CORRESPONDENT puts to us the question whether or no there would be a danger in cutting through a cemetery (for the purpose of widening a road) in which no interments have taken place for the past forty years? If interments had been conducted on scientific lines and the bodies (not too deeply buried) had been left to be dealt with by the "living earth," and if, in addition, the earth had been encouraged to bring forth "herb yielding seed and tree bearing fruit after its kind," we should have had no hesitation in saying that no evil would result from the proposed disturbance. But when we consider that the bodies interred have perhaps been enclosed in leaden coffins and carefully preserved in brick vaults we have some hesitation in giving an answer. As to the evils which have arisen or may arise from disturbing cemeteries there is practically no evidence which is of any value. These forty year old bodies may, owing to the mode of interment, still be undergoing a most unpleasant form of slow putrefaction, and their disinterment, while it would hasten their disintegration, might be a most unpleasant process and lead to the disengagement of foul-smelling gases if to no more serious consequences. On the whole we are inclined to think that the sentiment which has led to our regarding burial grounds as sacred places which ought not to be lightly disturbed or put to any other use is serviceable *on sanitary grounds;* and when an alteration is proposed in the interests of traffic and business we should recommend that a cemetery should not be utilised if such a course can possibly be avoided, but that the ground necessary for the improvement should be gained in some other way, even though the road should have to be turned a little out of its direct course. The evidence of bacterio-

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logists rather goes to prove that the process of putrefaction is not favourable to the preservation of pathogenic organisms, but, nevertheless, it is well to err on the safe side, and we believe the advice given is sound. It must not be forgotten that a cemetery constitutes an "open space," which in these days of overcrowding is of great value. If in these necessary open spaces burials were conducted scientifically, and if the ground were systematically planted, nothing but good would, we think, result.

PRELIMINARY GENERAL EDUCATION IN THE NEW YORK MEDICAL SCHOOLS.

AFTER several years of hard work an enlightened section of the medical profession in New York secured in 1893 a practical and successful supervision of medical students. The law as amended in 1895 requires for the present a trifle more than the common school education, with a gradual raising of the matriculation standard, so that the graduate in medicine in the year 1900 must have had a full high school course. Impartial and thorough execution of the provisions of the law is secured by placing all examinations under the control of the University of the State of New York, an institution which is not a university in the ordinary sense of the word, but is a State Commission empowered to examine students of all grades, to distribute funds for the maintenance of school libraries, to encourage university extension courses, to collect statistics concerning education, and in general to supervise and unify the entire educational system of the State. We learn, however, from an editorial article in a recent number of the *Philadelphia Medical and Surgical Reporter* that medical students and some of the teaching corporations have presented petitions against the new regulations, which in other quarters have also encountered an opposition which that journal naturally deplores as inimical to the best interests of the profession. Experience shows that a sound general education is more necessary to the medical practitioner now than at any previous time, and it is to be hoped that the efforts of those who advocate a retrograde policy may be unsuccessful.

HOSPITAL ABUSE AT BRIGHTON.

AT the annual meeting of the Brighton and Hove Hospital for Women and Children on the 13th inst. reference was made to the charges of abuse of the charity which had been made during the year. A sub-committee, it was reported, had gone into a large number of cases, and the result was almost the same as that which had been arrived at by the Sussex County Hospital. Four or five per cent. of the cases were such as might reasonably be said to be not fit and proper cases for a medical charity, but they felt that to checkmate the abuse, although it ought not to exist, would involve more trouble and expense to the institution than it would save. The remedy, it was pointed out, lay with the governors who recommended patients.

TUBERCULOSIS IN LANCASHIRE.

THE county council of Lancashire, recognising the importance of tuberculosis in cattle, have been trying some experiments in regard to this disease. The experiments have been undertaken on the advice of Mr. Daine of the Harris Institute, Preston. The test is the one recommended by Professor Koch of Berlin and consists of inoculation with tuberculin. Tuberculin is administered by injection hypodermically and if no rise of temperature or only a nominal rise follows it is indicative of the animal being free from disease. Some animals on the farm did show indications of the presence of tuberculosis, and the committee decided to slaughter several, in one of which no reaction had taken place. Upon post-mortem examination being made the test proved to be substantially correct. The committee have decided to inoculate the whole stock, and the following recommendations have been made by Mr. Daine and Mr. Hutchinson, M.R.C.V.S.: (1) that all reacted animals should be isolated; (2) that the shippons should be thoroughly disinfected and cleansed; (3) that separate feeding tubs and drinking troughs should be provided; (4) that calves should be fed on milk from cows that have not reacted; and (5) that only bulls that have stood the test should be sold for stock purposes. There can be no doubt of the importance of the experiment, which we hope the committee of the county council will continue and give the results and conclusions arrived at, for the benefit of the farmers and stock breeders in Lancashire. The subject is one, we might say, of national importance, and if these experiments should prove to be of service in extinguishing or even ameliorating this disease in cattle then a great advance will have been made in the region of preventive medicine.

WESTMINSTER HOSPITAL.

ON two occasions the usual practice of clinical lectures being delivered by members of the staff has recently been departed from and advantage has been taken of the presence in London, after several years of service abroad, of two former students of the Westminster Hospital to ask them to lecture on subjects of which their experience in the tropics especially qualified them to speak. The first lecture was given by Surgeon-Captain Scanlan on Hepatic Abscess, and it was the more interesting inasmuch as the lecturer had been in the hospital with this disease some months previously. The second lecture was delivered by Surgeon-Captain Walsh on Dysentery. The lectures were well attended, and the students evidently appreciated the advantage of hearing from men with large practical experience the symptoms and treatment of diseases which are only exceptionally met with in this country. The example that the Westminster Hospital has set in thus utilising the services of former students is one which deserves to be followed.

POOR-LAW OFFICERS' SUPERANNUATION BILL.

THE Poor-law Officers Superannuation Bill came on for second reading in the House of Commons on Wednesday last, and after an extended discussion, in the course of which its rejection was moved, seconded, and then withdrawn, it passed the reading and was referred to the Standing Committee on Law. We are pleased that the opposition to the proposed measure has thus been successfully met at the present stage, for doubtless there will be amendments made in committee which will remove the antagonism to the Bill manifested in certain quarters. For example, extension of its operation to Scotland and Ireland may be expected. Briefly, the Bill aims at rendering compulsory the voluntary system of pensions inaugurated by the Act of 1864. The permissive Act has been found in certain respects to work harshly, and the present measure will enable all officers, without respect to the devotion of their whole time to the duties of their office, to claim superannuation allowance by virtue of the deduction of 2½ per cent. from their salaries each year, the age for retirement being fixed at sixty-five years. The Bill has our sympathetic support, and we trust it will become law very shortly. Four hundred members of Parliament and an equal number of boards of guardians are distinctly in favour of it, as are the vast majority of the officers chiefly concerned. The Poor-law Medical Officers' Association has been active in urging upon its members the necessity for bringing all possible personal influence in the House and out to the aid of the measure. However, there is by no means entire unanimity of feeling in all grades of the officers, since some-

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feel that their cases will not be adequately met by the new legislation. Some regard sixty years as a better age for retirement than sixty-five; and others deem the Bill as now drawn to require amendment in regard to the treatment of officers holding dual appointments. These are but examples of several points which cannot fail to come up in committee, but the acceptance of the broad features of the Bill at the present stage is a step in the right direction.

AN appeal has been issued signed on behalf of the President and Vice-Presidents of the Royal Naval School (Eltham College) for funds to enable the school to maintain its full efficiency and usefulness. The financial difficulties have occurred owing to the diminution of the income from invested funds and the increased requirements of public school education, and the endowments originally intended to defray the cost of the foundation have become wholly insufficient. An additional income of about £1000 a year is required. Benefactions should be sent to the Secretary, Lieutenant-Colonel S. Hamilton B. Northcote, R.M.A., 32, Sackville-street, W.

IN the Court of Queen's Bench on March 18th Mr. Justice Day and Mr. Justice Wills, on the application of Mr. Muir Mackenzie, granted a rule *nisi* for a *mandamus* to compel the stipendiary magistrate of Cardiff to state a case *ex-parte* Evans *re* Bridgewater. The magistrate had refused to convict a Mr. Bridgewater who was summoned under Section 40 of the Medical Act of 1858 for wilfully and falsely pretending to be and taking and using a medical title implying that he was registered under the Medical Act. A similar order was made in the case of Dr. Eliza Foster Macdonogh-Frickhart.

THE annual general meeting and dinner of the Infirmary Medical Superintendents' Society were held on March 14th at the Inns of Court Hotel, Mr. J. R. Lunn, F.R.C.S. Edin., presiding. The result of the ballot for the election of officers was as follows:—President, Mr. Burney, Greenwich; Treasurer, Dr. Harris, St. Saviour's; and Secretary, Dr. Toogood, Lewisham.

WE are informed that the Senatus Academicus of the University of Edinburgh has offered the honorary degree of Doctor of Laws to Sir John Russell Reynolds, the President of the Royal College of Physicians of London, who has notified his pleasure in accepting the compliment.

PROFESSOR SILVANUS THOMPSON, F.R.S., has kindly consented to give a demonstration of the Roentgen process at a special meeting of the Clinical Society to be held at 20, Hanover-square, on Monday, March 30th, at 8.30 P.M.

AT the meeting of the Council of the Royal College of Surgeons of England on March 12th Mr. Thomas Bryant was re-elected for a term of five years as the representative of the College on the General Medical Council.

THE lectures given at the National Hospital for the Paralysed and Epileptic on alternate Wednesdays by Dr. Gowers and Dr. Beevor will be discontinued from the 18th inst. until after the Easter holidays.

THE Lord Chief Justice has consented to preside at the festival dinner to be given on behalf of King's College Hospital, on Tuesday, April 14th.

DR. W. J. COLLINS was on March 10th unanimously elected vice-chairman of the London County Council.

THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER XII.

"Hole-and-corner" Surgery.—The Interference of Dr. James Johnson.—The Real Simon Pure.—A Powerful and Libellous Indictment.—Tyrrell v. Wakley.—Damages laid at Two Thousand Pounds.—The Case for the Plaintiff.

IN accordance with the words of his defiance to the surgeons of St. Thomas's Hospital Wakley continued to print weekly reports of proceedings at that institution with regularity and to personally visit its wards and operating theatre whenever his inclination moved him, while he occasionally alluded to the action of the surgeons who had attempted to avoid publicity in scathing articles having for their common title "Hole-and-corner Surgery." These articles were written in a tone that precluded any idea of an amicable compromise between the offended hospital surgeons and the offended journalist. Messrs. Travers, Tyrrell, and Green, the three gentlemen under whose written authority Wakley's expulsion from the building of St. Thomas's Hospital had been designed, were contemptuously called "The Three Ninnyhammers"—a nickname hallowed by Sterne, Swift, Arbuthnott,[2] and, indirectly, Shakespeare—and their action was criticised as a good example of the forcible-feeble behaviour to be expected from persons so designated. Mr. Travers was especially blamed for having said in an address to the students of St. Thomas's Hospital that if any student should be discovered furnishing an account of hospital cases to a newspaper he would be immediately expelled, for the hospital surgeons had not the powers necessary to carry out the threat.

The articles upon "Hole-and-corner Surgery" were not, however, directed solely against Messrs. Travers, Tyrrell, and Green, but were partly written in reply to the article of Dr. James Johnson which appeared in the *Medico-Chirurgical Review*, then being issued under his editorship. Dr. James Johnson's interference was unfortunate. To begin with, Wakley was not the man to brook interference of any sort. He could understand the opposition of the persons interested in fighting with him, and had a sympathetic feeling for a firm foe. But for any meddlesome patronage or gratuitous advice he never had anything but very uncompromising language. We have seen that an article in *The London Medical Repository*, which compared the publication of Abernethy's lectures to two especially mean acts unlike in their felonious importance but alike in their meanness, formed the probable stimulus to the continuation of the legal processes before Lord Eldon that they were designed to squash. Similarly the strictures of *The Medico-Chirurgical Review* stirred into a blaze the ardour of a quarrel that if left to the parties concerned might have smouldered down and eventually gone out. Again, if the interference of *The Medico-Chirurgical Review* in favour of the action of the surgeons of St. Thomas's Hospital was unfortunate in itself, the particular line of defence adopted by Dr. Johnson was doubly so when placed in opposition to a man like Wakley, who was always on the side of the public or the rank and file—a true friend of the weaker.

"No man," said the *Medico-Chirurgical Review*, "can

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[1] Chapters I., II., III., IV., V., VI., VII., VIII., IX., X. and XI. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, 15th, 22nd, and 29th, March 7th and 14th respectively.

[2] "Have you no more manners than to rail at Hocus, that has saved that clod-pated num-sculled ninnyhammer of yours from ruin and all his family?"—*History of John Bull.*

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command success in surgical operations; and if a surgeon fail from want of dexterity he suffers mortification enough, heaven knows! in the operating-room, without being put to the cruel and demoniacal torture of seeing the failure blazoned forth to the public!"

This argument was made the subject of utter ridicule by Wakley. He begged his readers to imagine a case in which some simple operation in surgery had been performed in a bungling and disgraceful manner, so that the patient's life was endangered by, or actually sacrificed to, the operator's want of dexterity. If such a case as this had occurred in private practice Wakley could conceive that it might be desirable to suppress the cause of failure out of tenderness to the feelings of the relatives and friends of the deceased. But the expediency of suppressing all public notice of the malpraxis of a surgeon must be defended only on an amiable, if injudicious, regard for the feelings of the friends, not out of tenderness to the ignorant operator.

"This latter," said Wakley, "is so monstrous a proposition that, prepared as we were for the imbecilities of the Hole-and-corner champions, we were somewhat staggered at the impudent absurdity with which it is advanced ..... . Not a scintilla of compassion does the Hole-and-corner advocate suffer to escape him for the victim of the surgeon's want of dexterity; all his sympathy is reserved for the ignorant operator."

The remarks of the *Medico-Chirurgical Review* furnished Wakley with exactly the kind of object he most relished attacking—a narrow view held by monopolists or their advocates. He combated it with a savage relish of the task, laughing at it and rending it alternately. From only one standpoint would he allow it any sort of consideration, there being only one standpoint from which regard for the feelings of the operator could be seen to affect the patient's interests. It was just possible that if cases of failure were published medical officers of public institutions would not risk their characters by performing operations necessarily attended with but doubtful chances of success. While conceding this point, Wakley held that, as no surgeon ought to operate without a hope of success, if a hospital surgeon should be deterred from discharging his duty by a dread of the press he could not be fit to hold his situation.

The preface to the fifth volume of THE LANCET, published on Oct. 9th, 1824, contained a very serious reflexion upon Mr. Tyrrell. Sir Astley Cooper's lectures had come to a conclusion in the previous year, and the Editor, in congratulating himself upon having been the medium of bringing them before the notice of the profession, made a reference to the fact that twelve of these lectures had just been published by Mr. Tyrrell at the price of half-a-guinea, with illustrative cases from his hospital practice appended. He rejoiced over the fact as the invaluable principles contained in the lectures could not be too extensively diffused, but he objected to Mr. Tyrrell's action in the matter because it was marked by an act of literary dishonesty. In Wakley's opinion, the part of Mr. Tyrrell's volume, which really consisted of Sir Astley Cooper's last course of lectures, was copied paragraph for paragraph and phrase for phrase from THE LANCET, a proceeding that was inevitable if Sir Astley Cooper's lectures were to be reproduced at all, as the transcript for THE LANCET was the only manuscript in existence. What Wakley particularly objected to was the fact that Mr. Tyrrell had concealed the source from which he had obtained his material for a book.

He would have remained silent "if Mr. Tyrrell had not had the singular effrontery not only to conceal the source from which his fragment of the lectures is derived, but actually to represent himself in his preface as the veritable Simon Pure and to declare that his is the only correct and authentic copy. Now this is too much; it is too ludicrous to see Mr. Tyrrell alternately figuring as a Hole-and-corner Surgeon and as a humble transcriber of the pages of THE LANCET; at one time striving by all the contemptible artifices which we have so frequently exposed, to put down THE LANCET; and at another meekly sitting with our volume before him, coolly appropriating our labours, even servilely adopting our phraseology, where it differs from that of Sir Astley Cooper; and finally, with unexampled intrepidity, declaring that his is the only correct copy, for the sake of adding a little to the enormous profits which he already extracts from the pockets of the students."

A footnote to this passage said that Mr. Tyrrell had fallen into the pitfall where the plagiarist usually falls, and had transcribed passages which Sir Astley Cooper had never uttered, but which had been incorporated in THE LANCET reports by error. This was the warning of a coming storm, but not until Nov. 20th, 1824, was any further notice taken of Mr. Tyrrell's book. Upon that date, however, an article appeared the style and tone of which must have been adopted out of deliberate attempt to force matters to a legal contest. The article was entitled "The Real Simon Pure,"[3] and accused Mr. Tyrrell in unmeasured terms of literary and professional incompetency and dishonesty, asserting that the text of Sir Astley Cooper's lectures had been bodily stolen from THE LANCET and that the illustrative cases were badly chosen and unimportant as a whole, and that one in particular had been seriously garbled by quotation as a success in spite of the fact that it had a fatal termination.

Terribly relentless and almost savage as this article was, as an indictment it was a masterly piece of work, and it is impossible to read it now without feeling that the pen that wrote it was moving in obedience to a mind not stirred by petty malice, but deeply moved by passionate conviction. That Wakley had a personal grievance against Mr. Tyrrell is not denied, and it is probable that being a very human man he was not sorry to catch him tripping; but it was not Mr. Tyrrell alone whom he had in his mind when he poured out the vials of his scornful wrath, but Tyrrell's uncle and patron, his colleagues at St. Thomas's Hospital, and all who throve by nepotism and secrecy at the institutions that should have been the purest fountains of charity and the most unprejudiced sanctuaries of science. The article commenced by taking a passage from every tenth page of Mr. Tyrrell's book, commencing at a certain place, and comparing it with the corresponding paragraph as it appeared in THE LANCET. Six such parallel passages were given and shown to be practically identical. The illustrative cases were then very roughly criticised, and here the crowning offence urged against Mr. Tyrrell was reached, for among these cases was one quoted by the author as a success, the subject of the operation having died before the issue of the work.

"This," wrote Wakley, "we consider the climax. We have toiled through a jumble of commonplace remarks, stale truisms and long-spun cases ..... These, it is true, we might have overlooked in benevolent compassion for the imbecility of the head that could think of adding to the value of Sir Astley Cooper's lectures by such paltry trash. ..... He might have been content with palming upon the public *our pages* for *his own* production ..... without having the unblushing effrontery to publish false facts. ..... The world will hardly credit that a hospital surgeon could *publish, as a successful case, one* that we had already given the *post-mortem examination of*; such, however, is the fact, as may be proved by a reference to our own pages."

The case in question was that of a certain Thomas Denman, occasionally alluded to as Timothy Desman, who was admitted into St. Thomas's Hospital on the last day of August with a depressed compound fracture of the vertex of the skull. Mr. Tyrrell's account of the treatment

[3] Simon Pure was a character in an early eighteenth century play entitled "A Bold Stroke for a Wife," and written by Mrs. Centlivre. The story turns upon the impersonation of a young Quaker hero by an adventurer named Feignwell, and the hero is known as the Real Simon Pure to distinguish him from his counterfeit. The nickname does not appear very well applied in the connexion that it was used by Wakley, who evidently meant by it the True Culprit.

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of the case was as follows:—"I removed the whole of the fractured bone, which was comminuted; one small portion had penetrated the dura mater. He has been treated just as the former patient was and has not had a bad symptom since." The case was immediately recognised as one that had been reported in THE LANCET of the previous quarter as having a fatal termination through abscess of the left frontal lobe of the brain, and Wakley appended the account of the post-mortem which he had printed at the time as a note to Tyrrell's account of the case.

Upon this undoubtedly libellous article an action was brought against the Editor of THE LANCET and damages of £2000 were claimed.

The case of Tyrrell *versus* Wakley came on for hearing on Feb. 25th, 1824, before Lord Chief Justice Best (afterwards Lord Wynford) and a special jury. Mr. Serjeant Vaughan and Mr. Serjeant Adams appeared for the plaintiff, and Mr. Brougham (afterwards Lord Brougham) and Mr. FitzRoy Kelly (afterwards Sir. F. Kelly) for the defendant. Mr. Serjeant Vaughan, in his opening speech, referred to the deplorable state of friction between Wakley and certain of the hospital surgeons, and attempted to show that the publication of the libel was the direct and malicious outcome of Wakley's exclusion from St. Thomas's Hospital by Mr. Tyrrell and his colleagues. He justified that exclusion by saying that Wakley had made ill use of the privilege enjoyed by old students at St. Thomas's Hospital of being free of the wards and lecture-rooms of the institution after they had completed their medical curriculum; that false statements had been made by him in his paper; and that it had therefore been thought proper by the authorities to exclude him from the hospital. Mr. Tyrrell was one of those who put his name to the paper by which Wakley was excluded in May, 1824; and from that date a series of libels on Mr. Tyrrell could be traced to THE LANCET, ending with the one now specifically complained of, which made a most direct and bitter attack on his character. The damages were laid at £2000, which counsel did not consider excessive having an eye to the scurrilous nature of the article and the wide circulation of the paper in which it appeared. Mr. Tyrrell was held up to the public in a paper whose known circulation was over four thousand as a man who had been in the habit of publishing false statements to the world, by which it had been imposed upon, and of attempting to raise a spurious reputation on the supposed success of his practice by publishing his unsuccessful cases without adding to his accounts their luckless terminations. The imputations were not merely of a want of talent—not merely of erorrs of the head, but of the worst vices of the heart. Mr. Tyrrell was practically called in the article in question a thief of another's labours and a mendacious boaster.

One part of Serjeant Vaughan's speech certainly carried weight, and that was where he dealt with Wakley's property in the lectures. Mr. Tyrrell could not be said to have stolen from Wakley what Wakley had never legally owned—and the question of Wakley's right in these lectures was very doubtful. Some sort of right in them had been given him by Sir Astley Cooper, but how much was an open question. Moreover, as the Abernethy case was at this very time being considered in another court under the rather notorious circumstances already detailed, everyone felt that the question of copyright in lectures was in an unsettled condition and that an accusation of gross literary dishonesty founded upon any assumed settlement of that question did not at the time come very well from Wakley. When Serjeant Vaughan said that the lectures were undoubtedly Sir Astley Cooper's, and that he must be allowed to do whatever he liked with them and that he therefore was within his right in employing his nephew, Mr. Tyrrell, to publish certain of them in a book with a view to correct the inaccuracies present in the reports which had appeared in THE LANCET he made a point and it was the only one he really did make. With regard to the imputation that Mr. Tyrrell had wilfully suppressed the fatal termination of the case of Thomas Denman, counsel contended that it was a gross libel. The account of the case in the book, of which the libel was in some sort a review, expressly only dealt with the condition of the patient up to a certain date, and when the man died later the fact was noted in a slip of *errata* pasted into all the copies.

Mr. Serjeant Vaughan called witnesses, who proved Wakley's responsibility for whatever appeared in THE LANCET. The printer of the book testified to the fact that a correction which had to be pasted into each copy of the book was made at the earliest possible opportunity, though he could not swear that every copy of the book that went out from his establishment was so treated. No evidence whatever was adduced that the alleged errors in THE LANCET reports, owing to which Mr. Tyrrell had been invited to publish a corrected edition of the lectures, ever existed. Not a single slip or flaw in them was ever alluded to by any witness, though the statement that Mr. Tyrrell's assistance in the publication of the volume had been invoked as a corrective to Wakley's inaccuracies had been much insisted upon in counsel's opening speech.

(To be continued.)

REPORT OF THE MEDICAL DEFENCE UNION, LIMITED.

WE have already reported the proceedings of the annual meeting of this Union. We have now to notice its annual report. We can only congratulate the executive on a really splendid amount of success. The addition of new members is 252, bringing the total up to 3537, and the total guarantee fund up to £5212. The number of cases of members requiring aid, advice, or assistance has been over 1000. It throws an unpleasant light on the risks of our profession that nearly one in three of its members seems to be exposed to attacks needing skilled defence. The schedule of cases given in abstract is a most interesting and instructive piece of medico-legal reading. Very satisfactory is the demonstration which the schedule affords of the ability of this Union to meet almost every form of attack that can be devised by an unprincipled libeller. The success of the defensive action of the Union in the courts, and generally before the courts are reached, is almost monotonous, and suggests not only the ability of the executive, but the flimsy nature of the charges that are brought against the profession. The report should be circulated throughout the profession. We greatly doubt the expediency of the absorption of the Union by the British Medical Association. This would be an ignoble end of a body which has so much individuality and of which the profession has shown so much appreciation. We doubt whether this would be good for either of the bodies, though it is easy to see that a few leading members of each think so. One effect of such a fusion would be to necessitate the resignation by members of the General Medical Council of the membership of the British Medical Association. They could not continue to be members of a body that would then be practically a prosecuting body. The General Medical Council is severely handled in this report, often with some good reason; but it is scarcely likely that the British Medical Association would like to lose from its membership those who are also members of the General Medical Council. This, however, is a matter that must be decided by the respective bodies. Two other

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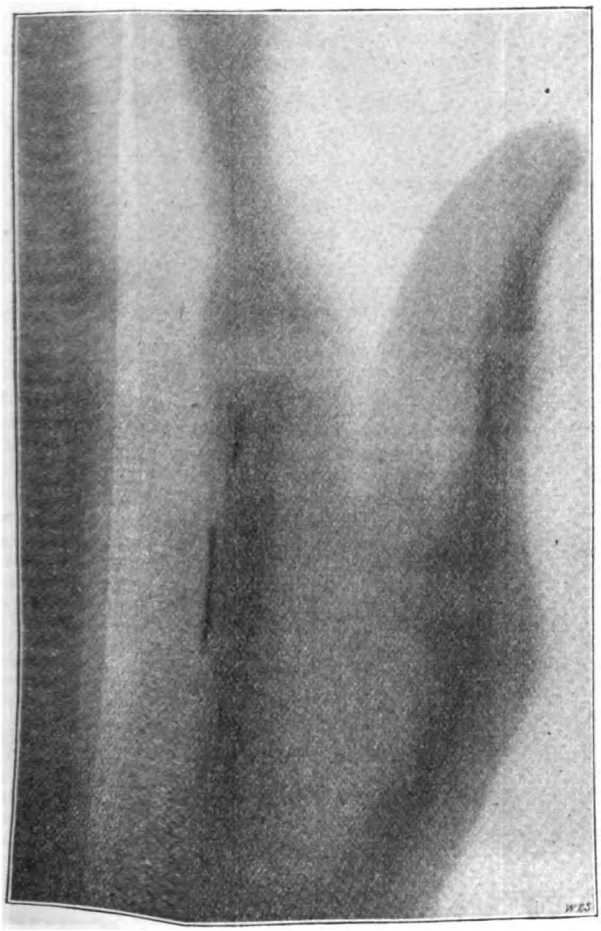
points in the report are very satisfactory—the promising stage of the negotiations for union with the London and Counties Medical Protection Society and the continually lower expenditure of the Union notwithstanding an ever-increasing amount of work. Outsiders as well as members will admit the wisdom of the appointment of Dr. Bateman as general secretary and the mere justice of giving him as salary £315 a year. He has worked well for the Union, and it would be unreasonable to expect him to continue his energy in its service without some such recognition.

THE NEW PHOTOGRAPHY.

WE are enabled this week to lay before our readers some illustrations which show very well the applications of Roentgen's rays to surgery. Figs. 1 and 2 are from prints taken by Dr. McKenzie Davidson of Aberdeen. In Fig. 1 a needle had been driven into a patient's hand, entering at the ball of the thumb, some ten months previously to her consulting a medical man. Ever since she had had more or less pain in the palm of the hand. The needle had broken on entering, for a part of it was found sticking in the table at which the patient had been working. Hence, presumably, there would be but one piece in the hand. The print, however, shows

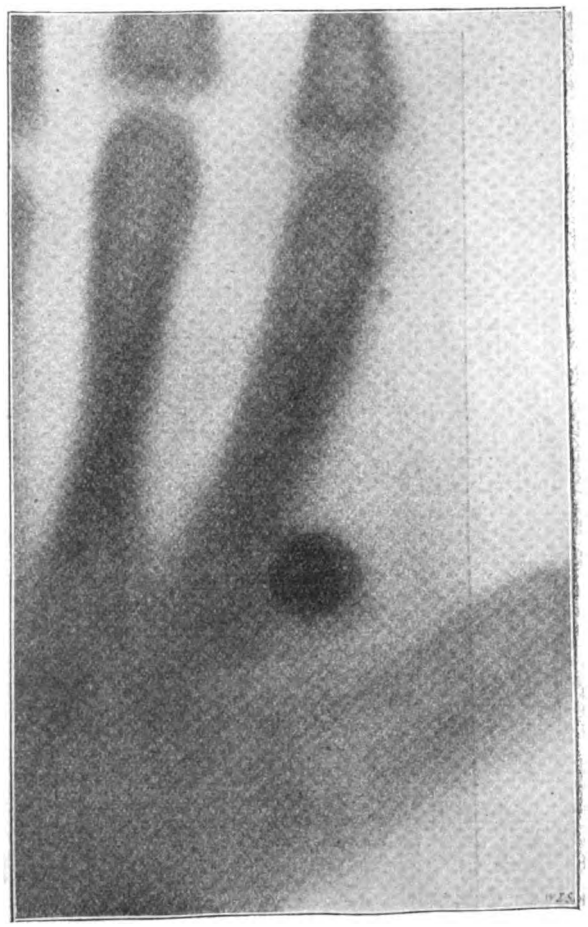
FIG. 1.



very distinctly that the needle must have broken after entering the hand, for there are two pieces lying on the ulnar side of the first metacarpal bone. This case is of great utility, for anyone on extracting the first piece would hardly have suspected the presence of another, and no one could have foreseen the exact state of things.

Fig. 2 shows a small revolver bullet lying against the metacarpal bone of the forefinger of a boy who had shot himself a few days previously. When seen by Dr. Davidson the position of the bullet could not be determined owing to

FIG. 2.



œdema. The bullet had entered near the point where it was eventually found, but on probing the wound the probe passed easily down an apparent track to the styloid process of the ulna. Eventually the position of the bullet was easily determined by the new method and it was extracted without difficulty. Dr. Davidson has used the method in three other cases. In two of them the patients were suffering from needles in the hands, and the third case was one of a revolver shot, also in the hand.

Fig. 3 shows the hand of a patient photographed in THE LANCET laboratory. The little finger has been amputated, and the whole hand is much distorted by arthritis. The print is interesting as opening up possibilities for deciding on surgical procedure in talipes, for it shows that a good view can be obtained of a distorted extremity even when it cannot be closely applied to the plate.

Fig. 4 is a very good illustration of a normal ankle-joint. The photograph was taken by Mr. Swinton, and for leave to reproduce it we are indebted to the Swan Electric Engraving Company.

We have made various trials to obtain a photograph of the human vertebral column, but up to the present we have not succeeded. We have, however, taken a very good photograph through the body of a monkey (dead), into whose kidney we had previously inserted a uric acid calculus. The spinal column and ribs show with great clearness, so does the calculus, although, judging by its position, it must have escaped from the kidney. It is right to add that the monkey having been

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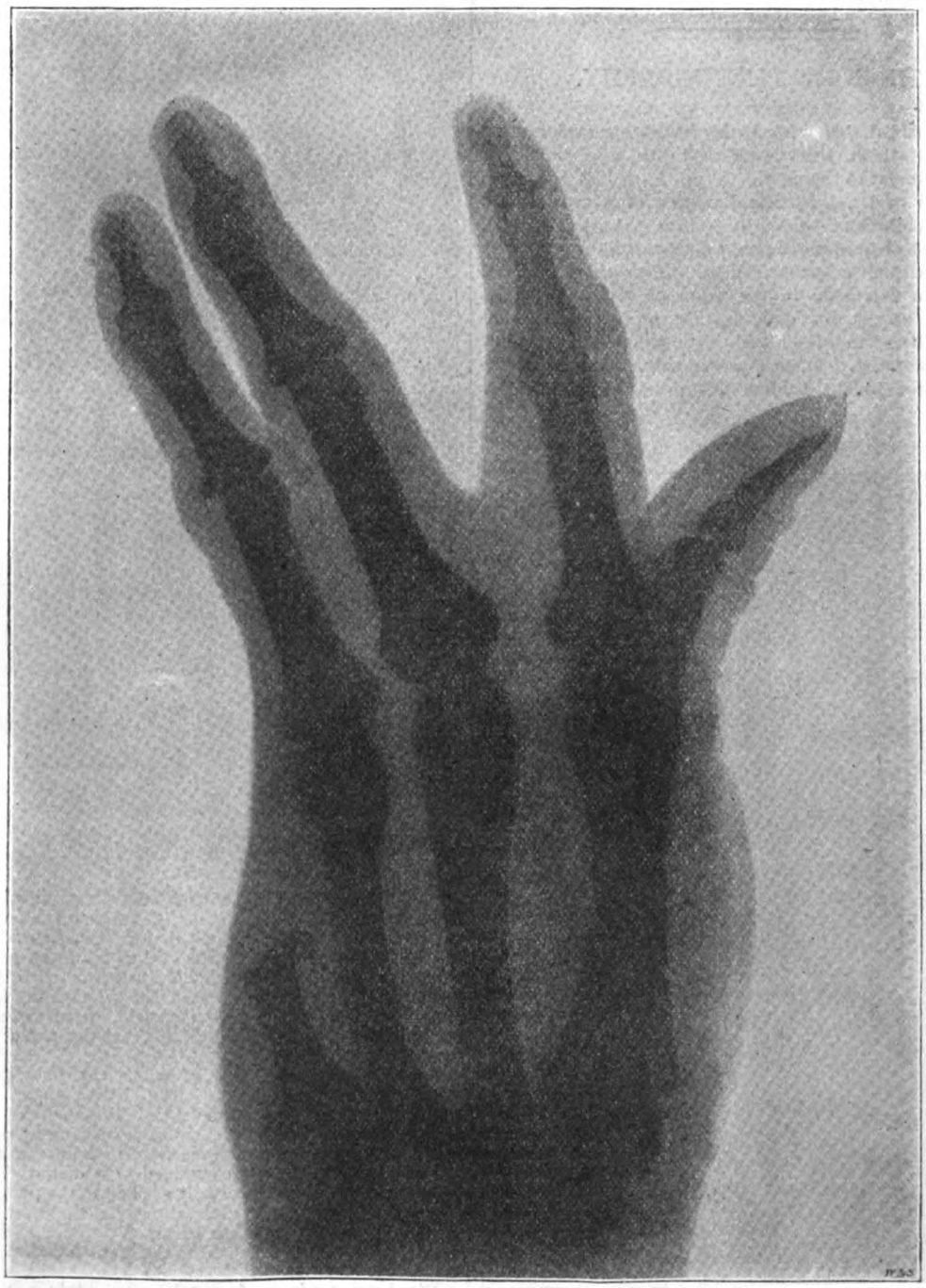
FIG. 3.



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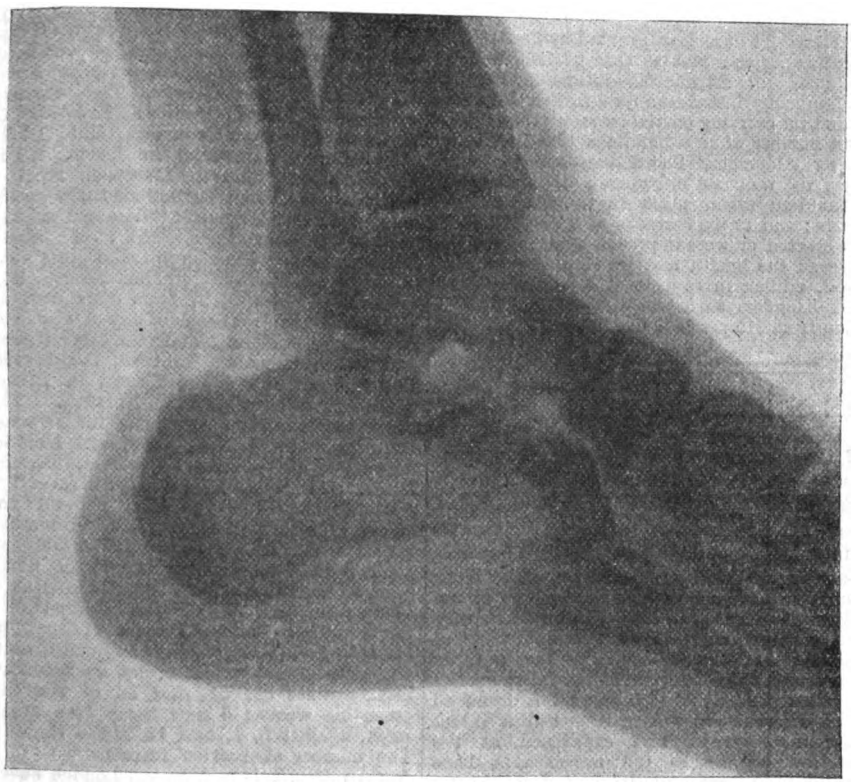
dead some days, the kidney was very soft and consequently stitches would not hold. The kidney itself is almost transparent, though not absolutely so. Next week we hope to reproduce the print in our columns. To make this method available for the diagnosis of calculi in the human kidney is probably merely a question of a larger bulb and more powerful coil than we possess.

Besides the above-mentioned cases we have received a large number of others, among which we may mention those reported by Dr. Savory of Haverfordwest, Dr. Hogarth of Nottingham, and Dr. Macintyre of Glasgow, a letter from whom will be found in another column. An interesting paper by the last-named gentleman is in type, but is unavoidably held over.

FIG. 4.



THE DEBATE ON THE ARMY ESTIMATES.

MR. BRODRICK introduced the Army Estimates in an unusually able and interesting speech, and the debate which followed was of an instructive kind. Mr. Brodrick seized the opportunity for instituting a relative comparison between the cost of our own army and that of the most economical army in the world, that of Germany. He was careful to explain that a voluntary army cannot, of course, be run on the same lines as a conscript army and that the differences which existed in almost every respect between this country and Germany rendered any comparison between them extremely difficult and well-nigh impossible. As regards the German Empire it may be said that the country was adapted to the needs of the army, whereas in England the army was adapted to the needs of the country, and this, to begin with, makes all the difference in the world. In addition to the fact that we have here no conscription and the army has to compete with other sources of labour and means of livelihood—not only in this country but in our various colonies and wherever opportunities offer themselves for British emigration, enterprise and labour—there is also the fact that the constant and continuous demands of India and our numerous colonies and dependencies on the army have to be met, and the cost of everything is much dearer in this kingdom than it is in other countries. Of course a little consideration will enable anyone to see that there is no real basis of comparison between England and Continental Powers in these respects, but people do not consider these things: they turn to the totals figuring up the great aggregate cost of the relatively small military force of this country and compare it with the small cost at which Germany maintains its enormous army. Mr. Brodrick did well to refer to these vast differences which are apt to be forgotten or even lost sight of altogether, and if he did not carry conviction to everybody's mind he, nevertheless, compelled their attention to them. He did not at all deny, however, that our army and War Office administration were susceptible of great improvement, and he appeared to think—and no doubt rightly—that both economy and efficiency would be developed in proportion as the system of centralisation and bureaucracy decreased. Mr. Brodrick was unable to indulge in any optimistic tone, however, in regard to the medical service of the army, for he had to confess that there had been a great falling off in the popularity of that service as evinced by its failure at the present time to attract the requisite number of candidates. He alluded to the statements with which he had been favoured by different deputations, and enumerated various causes—some six in all—to which the present state of the department had been ascribed. Sir H. Campbell-Bannerman, Dr. Farquharson, and Dr. Tanner also referred to this subject which, we are glad to learn, Lord Lansdowne has at present under his consideration, for it is a matter that seems to us to call for careful investigation. What the medical staff desires is the formation of a "Royal Corps of Surgeons" or a "Royal Medical Staff Corps" on the lines of the Royal Engineers; and there are other points in connexion with the medical service and the entrance into it which cannot now be properly discussed. The fact is that great changes have taken place in the profession and in the course of medical education of late which have given rise to a condition very different to that which

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existed some years ago. We may here observe that the officers of the Army Medical Staff have recently rendered very excellent services in the expedition to Ashanti—services which have been graciously recognised by Her Majesty and admitted by the army generally. It amounts to an obvious platitude to remark upon the importance of having a well-organised, efficient, and contented medical department in every army.

Mr. Brodrick, referring to the loan granted by Parliament in 1888 for defensive purposes and to that of 1890 known as the barrack loan, for £4,100,000, intimated that a Bill would be subsequently introduced for a further loan for defensive works and for carrying on the barrack programme. He dwelt upon the number of new buildings that had been already erected at Aldershot, Shorncliffe, the Curragh, and other camps, as well as elsewhere; to the great improvements that had taken place in the construction of married quarters; and to the barracks and hospitals that had been already erected or were in process of construction, by which he believed the health and hygiene of the army would be improved, adding in support of his opinion that, taking the United Kingdom as a whole, the admissions to hospital had fallen from 810 per 1000 in 1890 to 621 per 1000 in 1894.

THE NILE EXPEDITION.

THE House of Commons has by a large majority ratified the decision of the Government as to the despatch of troops up the Nile, and the movement that has already begun in the direction of Dongola has received the assent of Parliament. It seems that, in consequence of different indications of a menacing nature on the part of the Dervishes, an undertaking of this nature had become expedient in the opinion of the political and military authorities in Egypt and this country even before the occurrence of the disastrous defeat of the Italian force at Adowa and the consequent perilous position of the Italian garrison at Kassala. No doubt sympathy with Italy in her military misfortune and a desire to create a diversion in her favour have also had a direct influence in the despatch of this expedition at the present moment. According to the orders that have been issued an advance will only take place as far as Akasheh—a station on the Nile between Wady Halfa and Dongola. On account of the impending hot weather, the lowness of the Nile between this and September, and the difficulty of transporting supplies, it is extremely unlikely that any large force will advance at present beyond this point. Some of the Egyptian battalions are leaving, or have already left, Cairo, and there are seven regiments of the Egyptian Army already stationed at Assouan, Korosko, and Wady Halfa. The Soudanese contingent of the Khedive's army comprises some of the best and most reliable troops of that force, which has immensely improved under the discipline and training of the British officers who will act as their leaders. The 1st battalion of the Staffordshire Regiment goes to Wady Halfa, and it is probable that others will follow. We are glad to notice that Messrs. Thos. Cook and Son's services have been obtained in the way of transport for the Anglo-Egyptian force. This country has already had considerable experience of expeditions up the Nile and in Upper Egypt and the Soudan. In addition to the number of medical officers serving with the Egyptian Army, there will be required a contingent of officers from the medical staff and a hospital service for the British troops, the strength of which will depend upon the strength of that force taking part in the expedition.

The climatic heat is great, and as far as British troops are concerned we may expect that heat-exhaustion, heat-apoplexy, fevers, and dysentery will be the principal diseases with which we shall have to contend; but, as we have said, our previous experience in these regions will have taught the medical service and military authorities the best methods to pursue.

DEATH FROM RESEARCHES IN A BACTERIOLOGICAL LABORATORY.—A medical student named Mansvetoff, who had been engaged in researches on glanders in Professor Vorontsoff's laboratory in the Medico-Chirurgical College, St. Petersburg, contracted the disease in some unexplained manner and it rapidly proved fatal, the lungs being affected.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6677 births and 4166 deaths were registered during the week ending March 14th. The annual rate of mortality in these towns, which had increased in the four preceding weeks from 19·3 to 20·7 per 1000, declined again last week to 20·0. In London the rate was 20·6 per 1000, while it averaged 19·6 in the thirty-two provincial towns. The lowest rates in these towns were 10·0 in Swansea, 12·4 in Croydon, 14·7 in Brighton, 14·8 in Nottingham, and 14·9 in Derby; the highest rates were 22·8 in Leeds, 23·1 in Manchester, 23·4 in Bolton, 24·0 in Liverpool, and 24·1 in Sunderland. The 4166 deaths included 636 which were referred to the principal zymotic diseases, against 580 and 590 in the two preceding weeks; of these, 249 resulted from measles, 195 from whooping-cough, 91 from diphtheria, 40 from scarlet fever, 34 from "fever" (principally enteric), 27 from diarrhœa, and not one from small-pox. No fatal case of any of these diseases occurred last week in Portsmouth; in the other towns they caused the lowest death-rates in Swansea, Huddersfield, Cardiff, and Halifax, and the highest rates in Birkenhead, London, Salford, Birmingham, and Norwich. The greatest mortality from measles occurred in Newcastle-upon-Tyne, Birkenhead, Burnley, Leicester, and Norwich; from whooping-cough in London, Sheffield, Birmingham, Salford, Leeds, and Bolton, and from "fever" in Derby. The mortality from scarlet fever showed no marked excess in any of the large towns. The 91 deaths from diphtheria included 45 in London, 10 in Birmingham, 9 in Liverpool, 5 in Manchester, and 4 in Sheffield. No fatal case of small-pox was registered last week either in London or in any of the thirty-two large provincial towns. There were 42 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 14th inst., against 58, 51, and 52 at the end of the three preceding weeks; 4 new cases were admitted during the week, against 5, 1, and 13 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2764, against 2937, 2933, and 2857 on the three preceding Saturdays; 217 new cases were admitted during the week, against 244 in each of the two preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had increased from 377 to 433 in the three preceding weeks, declined again to 377 last week, and were 205 below the corrected average. The causes of 72, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Leeds, Sunderland, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Norwich, Burnley, Preston, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·5 and 19·2 per 1000 in the two preceding weeks, rose again to 19·6 during the week ending March 14th, but was slightly below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·8 in Paisley and 14·3 in Greenock, to 22·2 in Aberdeen and 27·4 in Perth. The 571 deaths in these towns included 35 which were referred to whooping-cough, 12 to diarrhœa, 9 to measles, 7 to scarlet fever, 6 to "fever," 3 to diphtheria, and not one to small-pox. In all, 72 deaths resulted from these principal zymotic diseases, against 64 in each of the two preceding weeks. These 72 deaths were equal to an annual rate of 2·5 per 1000, which was 0·6 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 27 and 29 in the two preceding weeks, further rose to 35 last week, of which 23 occurred in Glasgow, and 7 in Aberdeen. The deaths referred to measles, which had been 9 and 6 in the two preceding weeks, rose again to 9 last week, and included 7 in Glasgow. The fatal cases of scarlet fever, which had been 3 and 6 in the two

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preceding weeks, further increased to 7 last week, of which 3 occurred in Edinburgh and 2 in Aberdeen. The 6 deaths referred to different forms of "fever," corresponded with the number in the preceding week, and included 4 in Glasgow and 2 in Edinburgh. The fatal cases of diphtheria, which had been six in each of the two preceding weeks, declined to 3 last week, of which 2 occurred in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 111 and 106 in the two preceding weeks, rose again to 116 last week, but were less than a third of the number recorded in the corresponding week of last year. The causes of 34, or nearly 6 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 26·5 and 23·4 per 1000 in the two preceding weeks, rose again to 28·3 during the week ending March 14th. During the past eleven weeks of the current quarter the death-rate in the city has averaged 25·3 per 1000, the rate during the same period being 19·8 in London and 17·8 in Edinburgh. The 190 deaths registered in Dublin during the week under notice showed an increase of 33 upon the number in the preceding week, and included 10 which were referred to the principal zymotic diseases, against 9 and 7 in the two preceding weeks; of these, 4 resulted from scarlet fever, 3 from "fever," 2 from whooping-cough, 1 from diarrhœa, and not one either from small-pox, measles, or diphtheria. These 10 deaths were equal to an annual rate of 1·5 per 1000, the zymotic death-rate during the same period being 3·9 in London and 1·9 in Edinburgh. The 4 fatal cases of scarlet fever exceeded the number recorded in any week since the beginning of November last. The deaths referred to different forms of "fever," which had been 5 and 2 in the two preceding weeks, were 3 last week. The mortality from whooping-cough and from diarrhœa showed a decline from that recorded in the preceding week. The 190 deaths in Dublin last week included 27 of infants under one year of age, and 58 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded the numbers recorded in any recent week. Six inquest cases and 5 deaths from violence were registered; and 80, or nearly one-half, of the deaths occurred in public institutions. The causes of 11, or nearly 6 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING FEBRUARY, 1896.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during February in each of the forty-three sanitary areas of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 8·8 per 1000 of the population, estimated at 4,435,955 persons in the middle of this year. In the three preceding months the rates had been 13·7, 11·5, and 10·3 per 1000 respectively. Among the various sanitary areas the rates were considerably below the average in St. James Westminster, St. Martin-in-the-Fields, Strand, St. Saviour Southwark, St. Olave Southwark, and Wandsworth; while they showed the largest excess in Bethnal Green, St. George-in-the-East, Limehouse, Mile End Old Town, Rotherhithe, Battersea, and Greenwich. The prevalence of small-pox in London showed a marked decline during February, the 22 cases notified during the month including 5 in Lambeth, 4 in Greenwich, 3 in Islington, and 2 in St. Saviour Southwark sanitary areas. The Metropolitan Asylum Hospitals contained 45 small-pox patients at the end of February, against 73, 75, and 68 at the end of the three preceding months; the weekly admissions averaged 6, against 13 in each of the two preceding months. The prevalence of scarlet fever in London showed a further decline during February; this disease was proportionally most prevalent in Kensington, City of London, St. George-in-the-East, Limehouse, St. George Southwark, Rotherhithe, and Battersea sanitary areas. The Metropolitan Asylum Hospitals contained 2867 scarlet fever patients at the end of February, against 2690, 2708, and 2814 at the end of the three preceding months; the weekly admissions averaged 258, against 304, 250, and 282 in the three preceding months. The prevalence of diphtheria in London during February showed a slight further decline from that recorded in recent months; among the various sanitary areas this disease showed the highest proportional prevalence in Westminster, Hampstead, Bethnal Green, Whitechapel, Mile End Old Town, Camberwell, and Greenwich. There were 715 diphtheria patients under treatment in the Metropolitan Asylum Hospitals at the end of February, against 672, 687, and 682 at the end of the three preceding months; the weekly admissions averaged 99, against 98, 99, and 103 in the three preceding months. The prevalence of enteric fever in London during February showed a further marked decline from that recorded in the three preceding months; this disease was proportionally most prevalent in Clerkenwell, Rotherhithe, and Camberwell sanitary areas. Erysipelas was proportionally most prevalent in St. Giles, Holborn, St. Luke, Shoreditch, and Rotherhithe sanitary areas. The 19 cases of puerperal fever notified during February included 3 in St. Pancras and 3 in Greenwich sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas, the deaths occurring in the institutions of London having been distributed among the different sanitary areas in which the patients had previously resided. During the four weeks ending Saturday, Feb. 29th, the deaths of 6795 persons belonging to London were registered, equal to an annual rate of 20·0 per 1000, against 18·2, 17·3, and 18·4 in the three preceding months. The lowest death-rates during February in the various sanitary areas were 11·8 in Stoke Newington, 11·9 in Lee, 12·7 in Lewisham (excluding Penge), 15·3 in Wandsworth, 15·4 in Plumstead, 15·7 in Hampstead, and 16·2 in Hackney; the highest rates were 24·2 in City of London, 24·5 in Holborn, 24·8 in Bermondsey, 24·9 in St. Luke, 25·4 in Shoreditch, 26·0 in St. George Southwark, and 27·8 in Marylebone and in Bethnal Green. During the four weeks of February 1105 deaths were referred to the principal zymotic diseases in London; of these, 414 resulted from measles, 326 from whooping-cough, 203 from diphtheria, 75 from scarlet fever, 44 from diarrhœa, 41 from enteric fever, 1 from typhus, 1 from an ill-defined form of continued fever, and not one from small-pox. These 1105 deaths were equal to an annual rate of 3·2 per 1000; among the various sanitary areas the lowest death-rates from these diseases were recorded in Stoke Newington, St. Giles, Strand, City of London, St. George-in-the-East, and Lee, and the highest rates in Hammersmith, Marylebone, Holborn, Shoreditch, Bethnal Green, St. Olave Southwark, and Camberwell. The 414 deaths referred to measles were just three times the corrected average number in the corresponding periods of the ten preceding years; among the various sanitary areas this disease showed the highest proportional fatality in Marylebone, Holborn, Shoreditch, Bethnal Green, Newington, Bermondsey, Rotherhithe, and Camberwell. The 75 fatal cases of scarlet fever were 7 above the corrected average number; this disease showed the highest proportional fatality in Shoreditch, Mile End Old Town, Battersea, and Greenwich sanitary areas. The 203 deaths from diphtheria exceeded by 74 the corrected average number; among the various sanitary areas this disease was proportionally most fatal in Fulham, Chelsea, Mile End Old Town, Greenwich, Lewisham, and Plumstead. The 326 fatal cases of whooping-cough were 27 above the corrected average number; this disease showed the highest proportional fatality in Hammersmith, Hackney, Shoreditch, Bethnal Green, Poplar, Bermondsey, and Camberwell sanitary areas. The 41 deaths referred to enteric fever were 7 above the corrected average number; among the various sanitary areas the highest proportional fatality of enteric fever was recorded in Clerkenwell, Bermondsey, and Greenwich. The 44 fatal cases of diarrhœa were 16 below the corrected average. In conclusion, it may be stated that the mortality in London during February from these principal zymotic diseases was more than 50 per cent. above the average.

Infant mortality in London during February, measured by the proportion of deaths under one year of age to births registered, was equal to 149 per 1000, and was considerably below the average. Among the various sanitary areas the lowest rates of infant mortality were recorded in Hampstead, St. Luke, Whitechapel, St. George-in-the-East, Greenwich, and Lee; and the highest rates in Kensington, St. George Hanover-square, Westminster, Holborn, City of London, Bethnal Green, and Rotherhithe.

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ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON—FEBRUARY, 1896.

(Specially compiled for THE LANCET.)

SANITARY AREAS.	Estimated population in the middle of 1896.	NOTIFIED CASES OF INFECTIOUS DISEASE.											DEATHS FROM PRINCIPAL INFECTIOUS DISEASES.										Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.			
LONDON	4,425,955	22	1403	970	—	182	7	19	406	—	3009	8·8	—	414	75	203	326	1	41	1	44	1105	3·2	6795	20·0	149
West Districts.																										
Paddington	123,942	1	52	13	—	6	—	—	8	—	80	8·4	—	5	2	5	5	—	2	—	1	20	2·1	167	17·6	151
Kensington	167,993	—	84	28	—	1	1	—	15	—	129	10·0	—	15	4	7	12	—	—	1	—	39	3·0	225	18·2	198
Hammersmith	111,246	—	33	19	—	1	—	—	7	—	60	7·0	—	13	1	6	17	—	1	—	1	39	4·6	169	19·8	178
Fulham	124,029	—	17	28	—	2	—	1	7	—	53	5·6	—	14	2	11	8	—	—	—	1	36	3·8	179	18·8	172
Chelsea	100,815	—	25	28	—	5	—	—	8	—	64	8·3	—	6	3	10	6	—	—	—	—	28	3·4	137	17·7	129
St. George Hanover-square	73,054	—	18	8	—	5	—	1	—	—	32	5·7	—	10	—	4	—	—	2	—	—	16	2·9	104	18·6	198
Westminster	53,595	—	12	17	—	2	—	—	3	—	34	8·3	—	1	—	3	3	—	—	—	1	8	1·9	92	22·4	233
St. James Westminster	22,735	—	5	2	—	—	—	—	—	—	7	4·0	—	3	1	—	—	—	—	—	1	5	2·9	30	17·2	149
North Districts.																										
Marylebone	136,239	1	24	27	—	2	—	1	6	—	61	5·8	—	50	1	8	12	—	1	—	1	73	7·0	290	27·8	126
Hampstead	79,831	—	12	29	—	4	—	—	1	—	46	7·5	—	11	—	5	3	—	—	—	—	19	3·1	96	15·7	121
St. Pancras	233,247	—	69	44	—	11	—	3	25	—	152	8·5	—	10	3	9	7	—	1	—	2	32	1·8	343	19·2	125
Islington	340,007	3	86	88	—	9	2	2	18	—	208	8·0	—	48	5	22	25	—	3	—	1	104	4·0	507	19·4	164
Stoke Newington	36,329	—	19	6	—	—	—	—	1	—	26	9·3	—	—	—	2	—	—	1	—	1	4	1·4	33	11·8	157
Hackney	219,834	—	91	36	—	4	—	1	23	—	155	9·2	—	6	2	8	23	—	—	—	1	40	2·4	273	16·2	127
Central Districts.																										
St. Giles	37,170	—	3	3	—	3	—	—	11	—	20	7·0	—	1	1	—	—	—	—	—	1	3	1·1	56	19·6	145
St. Martin-in-the-Fields	13,294	—	2	—	—	—	—	—	—	—	2	2·0	—	1	—	—	2	—	1	—	—	4	3·9	24	23·5	167
Strand	22,008	—	4	4	—	1	—	—	—	—	9	5·3	—	1	—	—	—	—	—	—	—	1	0·6	38	22·5	146
Holborn	31,940	—	8	4	—	2	—	—	6	—	20	8·2	—	13	—	—	2	1	—	—	1	17	6·9	60	24·5	261
Clerkenwell	64,762	1	18	17	—	5	—	—	5	—	46	9·3	—	8	—	3	—	—	2	—	1	14	2·8	118	23·8	133
St. Luke	40,362	—	8	10	—	1	1	1	8	—	29	9·4	—	5	—	1	1	—	—	—	1	8	2·6	77	24·9	88
City of London	32,645	—	19	3	—	3	—	—	2	—	27	10·7	—	1	—	—	—	—	—	—	1	2	0·8	61	24·2	220
East Districts.																										
Shoreditch	122,678	—	48	30	—	6	—	—	19	—	103	10·9	—	23	8	4	31	—	1	—	3	67	7·1	239	25·4	169
Bethnal Green	130,282	—	42	41	—	15	—	—	16	—	114	11·4	—	21	1	6	22	—	—	—	—	50	5·0	278	27·8	184
Whitechapel	76,143	—	26	23	—	2	—	—	7	—	58	9·9	—	4	—	6	4	—	1	—	—	15	2·6	128	21·9	122
St. George-in-the-East	45,036	—	34	15	—	1	—	—	6	—	56	16·2	—	—	—	—	—	—	1	—	1	2	0·6	83	24·0	106
Limehouse	56,770	—	33	14	—	3	—	—	4	—	54	12·4	—	2	—	1	6	—	—	—	—	9	2·1	94	21·6	148
Mile End Old Town	108,645	—	40	41	—	8	—	—	16	—	105	12·6	—	3	7	6	8	—	1	—	1	26	3·1	185	22·2	150
Poplar	172,319	1	55	44	—	9	—	—	19	—	128	9·7	—	10	3	6	24	—	1	—	2	46	3·5	227	22·5	151
South Districts.																										
St. Saviour Southwark	26,429	2	3	1	—	1	—	—	2	—	9	4·4	—	2	—	—	1	—	—	—	—	3	1·5	25	17·3	178
St. George Southwark	60,276	—	30	5	—	1	—	—	9	—	45	9·7	—	9	2	1	4	—	1	—	—	17	3·7	120	26·0	133
Newington	120,211	1	34	17	—	3	—	1	7	—	63	6·8	—	14	1	3	6	—	2	—	2	28	3·0	189	20·5	131
St. Olave Southwark	13,147	—	3	1	—	—	—	—	1	—	5	5·0	—	—	2	—	2	—	—	—	1	5	5·0	24	23·8	161
Bermondsey	83,669	1	25	9	—	5	—	1	13	—	54	8·4	—	10	1	—	10	—	4	—	2	27	4·2	159	24·8	157
Rotherhithe	41,064	—	22	7	—	5	—	—	9	—	43	13·7	—	8	2	1	—	—	1	—	1	13	4·1	71	22·6	214
Lambeth	287,211	5	88	37	—	6	2	—	29	—	167	7·6	—	10	7	11	7	—	—	—	2	37	1·7	407	18·6	124
Battersea	168,825	1	79	41	—	5	—	2	17	—	145	11·2	—	4	5	8	16	—	1	—	3	37	2·9	239	18·5	173
Wandsworth	191,922	—	39	16	—	6	1	1	15	—	78	5·3	—	11	1	4	20	—	1	—	1	38	2·6	225	15·3	144
Camberwell	256,672	1	60	85	—	19	—	—	26	—	191	9·7	—	37	3	10	28	—	6	—	4	88	4·5	438	22·2	183
Greenwich	177,286	4	65	31	—	12	—	3	14	—	179	13·2	—	19	5	18	6	—	6	—	—	63	3·9	240	17·6	106
Lewisham (excluding Penge)	84,995	—	22	25	—	3	—	1	9	—	60	9·2	—	1	—	5	5	—	—	—	—	11	1·7	83	12·7	131
Woolwich	43,222	—	10	9	—	2	—	—	4	—	25	7·5	—	—	—	2	1	—	—	—	2	5	1·5	60	18·1	155
Lee	39,504	—	8	9	—	1	—	—	4	—	22	7·3	—	—	—	3	—	—	—	—	1	4	1·3	36	11·9	91
Plumstead	64,203	—	26	9	—	2	—	—	6	—	43	8·7	—	7	2	4	—	—	—	—	1	14	2·8	76	15·4	135
Port of London	—	—	2	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 47 cases of membranous croup.

† Including deaths from membranous group.

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THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-MAJORS ROBINSON and Braddell and Surgeon-Captains Daly and Lavie are under orders for service in Egypt. Brigade-Surgeon-Lieutenant-Colonel O'Connell has been transferred from Cork to Dublin. Brigade-Surgeon-Lieutenant-Colonel Boileau has been appointed to Trowbridge. Surgeon-Captain Thacker has embarked for India on exchange. Surgeon-Lieutenants Keble and Lattey have embarked for a tour of service in India.

ARMY MEDICAL STAFF.

Surgeon-Captain Arthur de Courcy Scanlan is placed on temporary half-pay on account of ill-health.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Lieutenant-Colonels to be Brigade-Surgeon-Lieutenant-Colonels: *Madras Establishment:* Arthur Mudge Branfoot, William Edward Johnson, M.D., George Frederick Bevan, and Andrew Francis Dobson. *Bombay Establishment:* Frederick Charles Barker, M.D. (*London Gazette*).

The services of the undermentioned officers of the Indian Medical Service are placed permanently at the disposal of the Chief Commissioner of Burmah:—Surgeon-Lieutenant-Colonel Upendra Nath Mukerji, Surgeon-Captain R. H. Castor, Surgeon-Captain T. W. Stewart, Surgeon-Captain Kanta Prasad, and Surgeon-Captain J. W. Wolfe. Surgeon-Captain J. B. Smith has delivered over charge of the Shikarpur Prison. Brigade-Surgeon-Lieutenant-Colonel C. T. Peters, M.B., and Surgeon-Captain J. B. Smith, M.B., have respectively delivered over and received charge of the Bijapur District Prison. The following promotion is announced subject to Her Majesty's approval: *Madras Medical Establishment:* To be Surgeon-Colonel: Brigade-Surgeon-Lieutenant-Colonel Terence Joseph McGann, vice Surgeon-Colonel C. E. McVittie, promoted.

NAVAL MEDICAL SERVICE.

The following appointments are announced: — Staff-Surgeon John H. Thomas to the *Dædalus*, temporary. Surgeons; Launcelot Kilror to the *Redbreast* and Montague H. Knapp to the *Sphinx*, both additional, and for appointment when recommissioned; Horace Elliott and Beauchamp F. Parish to the *Sappho*. Thomas Gibbons to the *Jason*, and James Mowat to the *Hood*.

VOLUNTEER CORPS.

Artillery: 1st Ayrshire and Galloway: Surgeon-Lieutenant W. A. Algie resigns his commission. 2nd East Riding of Yorkshire (Western Division, Royal Artillery): Surgeon-Lieutenant J. Soutter to be Surgeon-Captain. *Fortress and Railway Forces, Royal Engineers:* 1st London: Surgeon-Lieutenant-Colonel E. T. Watkins resigns his commission, also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement. *Rifle:* 4th Volunteer Battalion the Royal Scots (Lothian Regiment): William Lewis Martin, M.B., to be Surgeon-Lieutenant. 1st Volunteer Battalion the Queen's Own (Royal West Kent Regiment): Surgeon-Lieutenant C. Vise, M.D., to be Surgeon-Captain. 1st Volunteer Battalion the Gordon Highlanders: Brigade-Surgeon-Lieutenant-Colonel A. Fraser, M.D., resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the Battalion on his retirement, vacating at the same time his appointment in the Aberdeen Volunteer Infantry Brigade.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Lieutenant James Aitken Clark, M.B., the Queen's Rifle Volunteer Brigade, the Royal Scots, to be Surgeon-Lieutenant.

ARMY RECRUITING.

The report of Sir Francis Grenfell, the Inspector-General of Recruiting, for 1895 is a satisfactory one. The total number of men who joined the army in that year was 29,583. Of these 1809 enlisted for twelve years, 26,198 for seven years with the colours and five in the reserve, and 1576 for three years with the colours and nine in the reserve. The full strength of the army reserve at the beginning of the present year was over 78,000. The strength of the regular army, militia, volunteers, and army reserve on Jan. 1st, 1896, was 640,625. The militia numbers 108,350, composed of 72,343 English, 13,479 Scotch, and 22,529 Irish. Out of the total number of recruits for the regular army medically inspected during the past year 41 per cent. were rejected, which is about the same proportion as has obtained during the last four years. In respect of the percentage of special enlistments of recruits under the standard, of the progress of education and intelligence, and of the diminution of crime and desertion, the improvement has been notable. General Grenfell remarks that the far greater attention given to the comfort, health, and amusement of the men in barracks, and the granting of passes to them have contributed to raise the position of the soldier and to make him more contented, and in that way—which is the best way—to advertise the advantages of the army.

THE MEDICAL STAFF OF THE ASHANTI FIELD FORCE.

The following very gracious and gratifying communication was received last week by the Army Medical Staff at Aldershot from the Director-General of the Army Medical Department:—"I am directed by the Secretary of State for War to acquaint you that he has received the Queen's command to convey to Surgeon-Colonel Taylor, Surgeon-Captain Hilliard, and to other officers and men of the medical staff of the Ashanti Field Force who rendered service to his Royal Highness Prince Henry of Battenberg during his illness Her Majesty's thanks for the care and devotion so willingly accorded under what the Queen fears may have been exceptionally trying circumstances. Convey to all concerned Her Majesty's gracious approbation."

The appointment of Surgeon-General with the Governor of Bombay is vacant consequent on the proposed retirement of Surgeon-Major-General Turnbull.

Correspondence.

"Audi alteram partem."

THE "CURE" OF CANCER BY OPERATION.

To the Editors of THE LANCET.

SIRS,—The recent lectures of Mr. Watson Cheyne bring before the profession and the public a very important subject, the conditions of "cure" in cancer. Confining my remarks to cancer of the mamma, it will be observed that Mr. Cheyne follows the teaching of Volkmann that if patients be free from local recurrence for three years after operation they are "cured." Should disease again appear locally it is assumed that this is a "fresh outbreak" and not a residue of the old infection. Anyone taking up a dictionary may see that the uses of the word "cure" are very numerous, and in relation to disease the term is so vague that qualifying phrases are often used, as a "lasting cure," a "perfect cure," a "temporary cure," and the like. Speaking from a pathological standpoint it is true that no disease or injury is ever cured in the sense that the organism is left in exactly the same condition as before the disease attacked it. "Cure" may, I think, justly be defined from the point of view of the public and the bulk of the profession as the removal or banishment of a disease which never returns and leaves the body and mind of the individual in a physical and mental condition equal or closely approximating to the perfection of normal health. As an instance of this may be mentioned the removal of a stone from the bladder; as an instance of imperfect or poor cure permanent hemiplegia and imbecility after the successful removal of a cerebral tumour. Looking at the meaning of the word "cure" in this severe sense any surgeon must seriously doubt whether Volkmann's law is as binding on the profession as its supporters would try to make out. The results of operation for carcinoma of the breast in the past have been so bad that there is a natural and strong inclination to escape from a position not very creditable to surgery and to hastily assume that improvements in methods of operating can lead to results as favourable as the former modes were unsatisfactory. In dealing with maladies like cancer or phthisis any new modes or results of treatment are closely criticised and watched by an observant section of the public. Nothing shakes their confidence in medical men so much as statements regarding the cure of what they regard as incurable disease which afterwards when applied in individual instances or in important personages are found false or misleading. In my

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judgment it is our duty to speak with absolute truth regarding such matters, and especially not to use terms likely to mislead either the public or the bulk of the profession, who largely take their views of treatment and prognosis from the centres of medical teaching. I would ask, What would be said or thought of a family practitioner who assured a patient that now three years had passed without local recurrence she was cured, and that patient were to die within twelve months with cancer of the spine, liver, or ovary? The fact is that the "secondary" deposits of mammary cancer, especially in the bones, mediastinal glands, and certain of the internal organs, are insidious and often quite unsuspected, and pathological examination by an expert can alone settle the most vital question as to whether cancer exists or not. How far this has been done in patients who have died after the three-year limit I cannot say, but systematic pathological and accurate examination can alone settle the point of how many persons die after removal of scirrhus of the breast with all their tissues free from visible cancer. I imagine very few instances would be proved where this condition is fulfilled, unless they succumbed to the operation itself. Instances of long immunity from disease were not absolutely unknown in past days after the former methods of operation. Such cases were very exceptional and might be explained not by the absence of cancer but by its quiescence. Time and space forbid me giving instances of these interesting conditions. I would only say now that I believe the modern operations for cancer of the breast are associated with little risk if performed with perfect asepsis, that their results are better than the operations of former days in producing long immunity from recurrence, and that the individual chance of great prolongation of life is improved. All this we may with propriety urge upon our patients, but I believe with all deference that the term "cure" must be more carefully used with regard to the operative treatment of mammary cancer.—I am, Sirs, yours faithfully,

A. MARMADUKE SHEILD.

Cavendish-place, W., March 7th, 1896.

"QUALIFICATIONS FOR HOSPITAL APPOINTMENTS."

To the Editors of THE LANCET.

SIRS,—Referring to a letter which appeared in your issue of Feb. 29th under the above heading, I am directed by the Committee of Management to inform you that Fellows or Members of the Royal College of Physicians of Ireland are eligible as candidates for medical appointments on the staff of this hospital. The committee much regret that the qualification was accidentally omitted from the recent advertisement which forms the subject of the letter referred to owing to the fact that the Royal College of Physicians of Ireland has taken the place of the King's and Queen's College of Physicians of Dublin, the latter body being the one designated in the constitution of the hospital. The wording of the constitution has now been amended, and the omission will not occur again.

I am, Sirs, yours faithfully,

LEWIS H. GLENTON KERR,
Secretary, Great Northern Central Hospital,
March 10th, 1896. Holloway-road, N.

"THE PORTSMOUTH LUNATIC ASYLUM."

To the Editors of THE LANCET.

SIRS,—In this week's issue of THE LANCET I notice an annotation which takes exception to the recent statement made by the chairman of the Portsmouth Borough Asylum Committee at their recent meeting relative to the appointment of a medical superintendent. The chairman made use of the following words: "All that is wanted in a medical superintendent is good organising ability and skill to deal with the diseases that attack lunatics in common with sane people."

I know nothing whatever about the merits of the candidate for the post, nor do I defend for a moment the system of making the appointment without having previously advertised it, but from three years' practical experience in lunatic asylums I am in a position to endorse the chairman's statement. Asylum superintendents who relegate to themselves the title of "mental specialists" give the treatment of the patients entirely into the hands of the medical officers and confine themselves to the general administration and organisation of their establishments.

I am, Sirs, yours faithfully,

R. P. RYAN, F.R.C.S. Irel.

Devonport, March 13th, 1896.

"FUNCTIONAL APHONIA IN MAN; TREATMENT, ETC.; WITH SPECIAL REFERENCE TO SO-CALLED VARICOSE VEINS AT THE BASE OF THE TONGUE."

THE SURGICAL IMPORTANCE OF VARICOSE VEINS AT THE BASE OF THE TONGUE.

To the Editors of THE LANCET.

SIRS,—Before you finally declare your columns closed to correspondence on this subject I shall be grateful if you will allow me to send you one more letter. The first charge (Feb. 15th) was that of Dr. Tilley that "functional aphonia" was taught at a hospital—now allowed to be the one of which I am the senior surgeon—to be due to varicose veins at the base of the tongue. This may be dismissed, for Dr. Tilley admits that he was not thus taught by the surgeon whose practice he followed at that hospital, and I have challenged him to produce any printed evidence that any one of my colleagues is responsible for so extravagant a doctrine. In the following week came a letter from Dr. Watson Williams, in which he at once admitted and questioned the frequency and the importance of varicose veins. I must refer your readers to his letter for details. At any rate, he was "confident that the great majority of laryngologists would strongly oppose the tendency of a few observers to over-estimate their clinical importance." I promptly claimed to agree with this pious expression of opinion. Then on Feb. 29th you published the encyclical of Dr. Semon, Dr. Hall, Mr. Butlin, Dr. Macdonald, and Mr. Symonds, in which they "fully endorse the views set forth by Dr. Tilley and by Dr. Watson Williams."

Now I had intended, in view of the unwarranted and unsupported statement of Dr. Tilley and the vague one of Dr. Williams to have taken no notice of this conjoint letter except to dismiss it with what I fear was but a blunderingly humorous quotation against them from Dr. McBride, whom I quite recognise to be of their way of thinking. But I have been told by many friends that it is a duty to point out that Dr. Watson Williams has, in quite recently published utterances, taken a quite different position to that now assumed. This gentleman, whose laboured regret to expose a mote in my eye has made him oblivious to a big beam in his own, thus writes in "Diseases of the Upper Respiratory Tract," (London, October, 1894), p. 43:—"Varix and Adenoid Hypertrophy at the base of the tongue is another condition *very frequently* [the italics are mine] observed in association with chronic pharyngitis. The hypertrophied nodules of adenoid tissue by impinging on the epiglottis may cause a constant irritating cough. The most marked case I have met with, as shown in Fig. 16 [which, by the way, does not illustrate impingement on the epiglottis], was in a schoolmaster. These nodules and any varicose veins should be destroyed by the galvano-cautery in the same way as enlarged veins in the pharyngeal mucous membrane." These eighty words represent all the information afforded on the subject in the volume. No word of protest is uttered as to the importance of looking beyond local causes or of taking a broad-minded and physicianly view of the question, which is, indeed, treated in as local and narrow a manner as could well be demonstrated.

I forbear to push the matter further, being confident that the signatories of the conjoint protest will now feel that they have been somewhat in a hurry in their endorsement of views which are either not very sincere or are the result of but a very recent conversion. Nor would I inquire too curiously if the writings of some of their own party would bear close scrutiny, for I am not at present concerned to show that there are quite as many English—to say nothing of French, German, and American—laryngologists who are in agreement with me as with them. In conclusion, I would ask permission to again repeat that lingual varix has never been taught by me to be the sole cause, but only a portion of a complex condition responsible for many minor throat troubles as well as indicative of several constitutional states,

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and I would particularly refer to a letter written by myself to THE LANCET (vol. i., 1893, p. 177) in answer to one of your correspondents seeking information. Nor have I ever taught, as has been inferred by some of those who have joined in this discussion, that every case of simple prominence of the pharyngo-glossal veins, although noted by me as an evidence of varicose tendency, requires to be treated by the galvano-cautery. I can confidently appeal to the many gentlemen who have followed my hospital practice and that of my colleagues, to confirm me in the statement that an astringent gargle, spray, or lozenge, with appropriate internal remedies and hygienic directions, represent the routine treatment, and that the galvano-cautery is employed in but a small proportion of cases in which varix is noted.

I am, Sirs, yours faithfully,

Mansfield-street, March 16th, 1896. LENNOX BROWNE.

To the Editors of THE LANCET.

SIRS,—I wish to thank those gentlemen who so kindly supported my views with reference to varicose veins of the tongue in THE LANCET of Feb. 29th. I have never stated or inferred that it is a special doctrine of Mr. Browne's hospital that functional aphonia is due to varicose veins at the base of the tongue, as he now insinuates,[1] and I absolutely refuse to be drawn from the basis of my facts into the pitfalls of Mr. Browne's rhetorics. My contention was, and is, that varicose veins at the base of the tongue is an exceedingly rare condition, and as rarely gives rise to symptoms such as alleged by Mr. Browne in his publications on the subject. In this contention I am supported by Dr. McBride, Mr. Butlin, Dr. Chiari, Dr. de Havilland Hall, Dr. Macdonald, Dr. Semon, Mr. Symonds, and Mr. Watson Williams, gentlemen whose scientific attainments and reputation in laryngology are beyond question as opposed to Mr. Lennox Browne, who states that he finds this condition present in more than one in four of his private patients (438 in 1547)—a statement which to the most casual observer must carry its own condemnation on the face of it. If further corroboration of our opinion were needed and of the way in which confiding patients are sometimes treated we have it in Dr. Coates's letter,[2] where the evidence of a general practitioner of experience is as eloquent as it is painful. I take this opportunity of thanking Dr. Coates for his letter, for as a contribution from one who is not a specialist it is extremely valuable.

It is gratifying to find in the letters from Dr. Williams and Dr. McBride in your issue of March 14th that they refuse to allow Mr. Browne to claim them as allies.

I must point out, also, that having first complained that I named no names, Mr. Browne now carefully avoids reply to my offer—viz., to give him the names of the patients and of the consultants and even to afford further evidence by additional cases.

I must now leave the profession to judge between the two sides and am sorry that we have not some tribunal before which such cases as related by Dr. Harcourt Coates and myself could be brought and fully and fairly investigated.

I am, Sirs, yours faithfully,

HERBERT TILLEY, M.D. Lond.

Welbeck-street, March 15th, 1896.

"SUBCUTANEOUS EMPHYSEMA OCCURRING DURING LABOUR."

To the Editors of THE LANCET.

SIRS,—Mr. G. L. Freeman, narrating[3] a very interesting case of Subcutaneous Emphysema occurring during Labour, says he has "consulted several text-books on the subject, but can get no information." May I refer him to "The System of Obstetric Medicine and Surgery," 1884, by Robert Barnes and Fancourt Barnes? In the index, under the word "Emphysema," he will be guided to p. 527, where he will find the following account: "Ergot may cause such vehement reflex straining that, the glottis being too long closed, rupture of air-*vesicles*[4] ensues, entailing emphysema of the neck, and perhaps extending widely." I may add that I have seen it occurring from violent straining where no ergot had been given.

I am, Sirs, yours truly,

Lyss, March 14th, 1896. ROBERT BARNES.

[1] THE LANCET, March 7th, 1896.
[2] THE LANCET, March 14th, 1896.
[3] THE LANCET, March 14th, 1896.
[4] Misprinted *vessels*.

"PLURALISM" AT THE GREAT NORTHERN CENTRAL HOSPITAL.

To the Editors of THE LANCET.

SIRS,—*Apropos* the recent appointments on the honorary medical staff at the Great Northern Central Hospital, Holloway, will you be good enough to allow me, through your columns, to ask if it was from paucity of applicants, owing to restrictive by-laws, that two gentlemen *holding similar posts at other metropolitan medical institutions*—"pluralism" in ecclesiastical circles—had to be selected as obstetric physicians? Or can it be possible that there is such a dearth of eligible gynæcologic or obstetric practitioners in London as these "pluralist" appointments would obviously indicate?—I am, Sirs, yours truly,

March 14th, 1896. J. DYSART MCCAW, M.D. St. And.

DISTURBING CEMETERIES.

To the Editors of THE LANCET.

SIRS,—Would you kindly give me your opinion as to whether there would be any risk of danger to the public health in widening one of the roads of the town by taking a piece out of an old cemetery? The cemetery, being full, is not used except by those possessing vaults in it. The level of the cemetery is about 12 ft. or 13 ft. above that of the road. One vault and a number of graves occupy the part which it is proposed to remove. No burials have taken place in this portion of the cemetery for about forty years.

I am, Sirs, yours truly,

Guernsey, March 12th, 1896. C. D'A. COLLINGS.

"THE MEDICAL DEFENCE UNION, LIMITED, AND THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED."

To the Editors of THE LANCET.

SIRS,—In reply to Mr. Horsley's letter in THE LANCET of March 14th we can only say that we are exceedingly surprised and sorry to find that he still fails to grasp the fact that nothing blocks the way to the amalgamation of these two societies but the refusal of the Medical Defence Union to register that title for the amalgamated society which has been accepted by all the delegates, and we take this opportunity of giving the assurance to all concerned that in the council of our society there is a strong wish that the amalgamation of the two societies, conducted on proper legal lines, should be completed forthwith.

We are, Sirs, yours faithfully,

GEORGE HERON,
W. BRUCE CLARKE,

Delegates London and Counties Medical Protection Society, Ltd.

"DEATH UNDER CHLOROFORM AT A DENTIST'S ROOMS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 7th there appears in the annotations under the heading of "Death under Chloroform at a Dentist's Rooms" the following:—"It is a matter of no small regret that dental practitioners should not be better informed upon these matters than to permit the employment of chloroform upon their premises as an anæsthetic. There is ready to hand a safe and convenient anæsthetic in nitrous oxide gas, which fulfils all the requirements of the dentist." It seems to me to be quite time there was some air let into such one-sided statements by some one who sees the thing from a dentist's standpoint. I presuppose the writer admits the advisability of an anæsthetic in case of painful operation, and yet chloroform is not to be used in a dentist's rooms. What percentage of surgeons would think of, say, amputating a finger or a toe, or performing a circumcision, without exhibiting one of the long anæsthetic agents? I presume no one would suggest that to have four or five badly broken-down teeth, let alone ten or fifteen, or removing an impacted wisdom tooth, is not a more painful operation than any of the aforesaid for which chloroform is regularly given. The special danger of mechanical complication with the air-passage does not appear to

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have influenced the percentage of deaths, according to the reports of the Chloroform Commission, the worst cases of this kind have occurred when N_2O was used; and, besides, $CHCl_3$ is used continually in adenoid operations and other naso-pharyngeal operations which, so far as bleeding is concerned, are about the same. The particular danger is, of course, the position, which undoubtedly ought to be horizontal, and this can usually be arranged. The second part of the statement, that "nitrous oxide gas *fulfils all the requirements of the dentist*," is simply absurd; it does not. Every dentist knows to his sorrow that cases are constantly cropping up where N_2O is not of the slightest use; for instance, one frequently sees in the same mouth several teeth each of which require a longer time to remove than N_2O allows. And, again, it is quite impossible in some cases to persuade one's patient to undergo more than one operation. Nitrous oxide is a splendid anæsthetic and one may in some cases do an almost incredible amount of work with it, but, being incapable of prolongation, entirely cripples one in cases of lengthy and intricate work, and they do appear even in dentists' rooms. My own impressions are that: (1) N_2O should always certainly be used where it can possibly be made to meet the requirements; (2) that N_2O and ether is preferable to $CHCl_3$ in longer operations; (3) that the horizontal position should be assumed; and (4) that an anæsthetist is perfectly justified in administering $CHCl_3$ or whichever anæsthetic he deems advisable in a dentist's office in event of severe operation.

I am, Sirs, yours faithfully,

Luton, March 16th, 1896. G. J. WARDILL, L.D.S.

THE ROYAL SOUTH HANTS INFIRMARY.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of to-day (March 7th), under "Medical News" it is stated as regards the proceedings of our annual meeting that "£5000 worth of stock is to be sold towards the building fund." Although this was proposed it was not decided to do so, and I will therefore be obliged if you will kindly correct the report.

I am, Sirs, yours faithfully,

March 7th, 1896. T. A. FISHER HALL, Secretary.

HEREDITARY POLYDACTYLISM.

To the Editors of THE LANCET.

SIRS,—I believe the following may be interesting to some of your readers.

In February of 1895 I delivered a young woman of a healthy, well-developed male child, having six digits on each hand, the extra members being attached to the ulnar side by a fleshy pedicle. My patient's mother informed me that this peculiarity has occurred in her family for eight successive generations. In the seventh generation, although none of her own offspring were thus marked, the peculiarity affected her sister's child. In the eighth (present) generation, of several children born, all are normal except the infant at whose birth I attended.

I am, Sirs, yours truly,

CHAS. E. WHITCHER, L.R.C.P. Edin., &c.

Hove, Sussex, March 8th, 1896.

THE DUTIES OF DIVISIONAL SURGEONS IN CASES OF INFECTIOUS DISEASE.

To the Editors of THE LANCET.

SIRS,—I endeavoured some time ago, by application to headquarters, to ascertain if the instructions to divisional surgeons of police in cases of infectious diseases arising in the families of police officers already under the care of a medical man authorised them to interfere with the conduct of such cases. I failed to obtain any information on the subject. In two comparatively recent cases, the first, a case of scarlet fever, was visited by the divisional surgeon after my notification. I was informed by the mother next day that the divisional surgeon said it was more like measles than scarlet fever, but he would call in a few days to complete his diagnosis. In another case—one of typhoid fever—I was told by the mother that the divisional surgeon expressed the opinion that the child might be sickening for measles, and said he would return in a few days to see the case again. With the communications which divisional surgeons are required to make to the Commissioners I have nothing to do, but I must protest that *in absentiâ* my opinion of the nature of the cases should be discredited with the parents. I shall be glad if you or any of your numerous readers can throw any light on this obscure subject. I am, Sirs, yours faithfully,

W. THYNE, M.B., C.M. Edin.

Barnet, Herts, March 17th, 1896.

VACCINATION OFFICERS.

To the Editors of THE LANCET.

SIRS,—The National Association of Poor-law Officers of England and Wales desires to draw public attention to the anomalous position in which vaccination officers are placed through the delay in the report of the Royal Commission on Vaccination. This Commission was appointed on May 29th, 1889, and the warrant of appointment concludes as follows: "And our further will and pleasure is that you do with as little delay as possible report to us, under your hands and seals, or under the hands and seals of any five or more of you, your opinions upon the several matters herein submitted for your consideration." In March, 1896, however, the report is not forthcoming, and vaccination officers, together with the general public, have to rest content with the assurance that the Commission will report in due course. Boards of guardians are constantly calling attention to the inconvenience to which they are put by this long delay, but to the vaccination officers, who are paid by results, the delay assumes vital importance. The guardians and the Local Government Board have been approached upon the subject of the vaccination officers, diminishing incomes, but have felt themselves precluded from dealing with the matter pending the report of the Royal Commission, and the vaccination officers feel that they have no alternative than to seek the aid of the press to bring their grievances before the public.

I am, Sirs, yours obediently,

SHIRLEY FUSSELL,

Secretary to the National Poor-law Officers' Association.

Surrey House, Victoria-embankment, W.C., March 17th, 1896.

"THE NEW PHOTOGRAPHY."

To the Editors of THE LANCET.

SIRS,—The development of the technique of "x" rays is making rapid progress, and it may be of interest to your readers to know that I have been able to photograph the internal wall of the cranium (in a dead subject), and by means of a binocular cryptoscope carefully worked out to see shadows of bullets placed therein. With the same instrument I have been able to see shadows of all the bones of the upper extremities and the majority of those in the lower. With regard to photography, the upper part of the spine has been photographed straight through the chest-wall, showing six ribs with their attachments and transverse and spinous processes; in the ribs the intimate structure of the bones is clearly seen, and for surgical purposes I have been able to photograph the elbow-joint with a sufficiently good result in one minute and three-quarters' exposure, using one of Newton's tubes.

I remain, Sirs, yours faithfully,

Bath-street, Glasgow, March 16th, 1896. JOHN MACINTYRE.

MIDWIVES BILLS OPPOSITION EXPENSES.

To the Editors of THE LANCET.

SIRS,—I wish, through your journal, to ask practitioners to subscribe to the above fund. Since the first of the five so-called Midwives Bills was introduced into Parliament in 1890 I have expended, up to Oct. 25th, 1895, out of my private means, £321 15*s.* 9*d.* In 1891, when I had expended £180, Dr. H. Woods established a fund to repay my out-of-pocket expenses, and so refunded me £50. In 1893 Mr. C. Campbell started a similar fund and so refunded me £30. In 1894 the committee of the Lancashire and Cheshire Branch refunded me £37 13*s.* 2*d.* opposite expenses incurred by me in connexion with that committee. The vouchers for the £180 I submitted to Dr. Collins, Manchester; those for the £37 13*s.* 2*d.* to Dr. Chamberlayne, Stalybridge; while those for the remainder were submitted to Dr. O'Sullivan, Southport. Thus, of the total expenditure only £117 13*s.* 2*d.* were refunded up to October, 1895, leaving

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me then out of pocket and liable for £204 2s. 6d. Since that date £75 2s. 6d. have been repaid, leaving me now £130 out of pocket. When the first Midwives Bill was introduced in 1890 the Midwives Institute obtained no less than £985 in subscriptions and guarantees, and since then the Midwives Registration Association has collected more. I think we also should have a guarantee fund. In 1895 there were 27,395 practitioners resident in the United Kingdom, and if each of these gave a few pence a large sum would soon be subscribed. It is to be remembered that all the Midwives Bills proposed to establish an inferior order of singly qualified midwifery practitioners, who (as it was not proposed to make it an offence if they practised medicine, surgery, pharmacy, and vaccination) would be, if not *de jure*, *de facto* medical practitioners also, thus aiming at the repeal of the Medical Act. 1886. I shall be glad to acknowledge subscriptions, and as Mr. T. Skewes Cox, M.P., intends to ask the House of Commons to read his new Midwives Bill on May 6th next, I shall be glad if those in sympathy with our opposition will help to wipe off the above debt.

I am, Sirs, yours faithfully,

Hartington-road, Liverpool. ROBERT R. RENTOUL.

THE COLLUM MEMORIAL.

To the Editors of THE LANCET.

SIRS,—We beg to inform you that at a meeting held at Charing-cross Hospital on March 10th a resolution was passed that a memorial be established to the late Mr. A. T. Collum, M.B., F.R.C.S., assistant surgeon to the hospital, and that if sufficient funds can be raised a recreation ground shall be acquired for the use of the students of the hospital. For this purpose an account has been opened with Messrs. Coutts and Co. All cheques and subscriptions will be gratefully acknowledged by Dr. J. Abercrombie, treasurer, or by the secretaries.

We remain, Sirs, yours faithfully,

C. THOMPSON BISHOP, LONGFORD LLOYD, } Hon. Secs. to the fund.

Students' Club, Chandos-street, W.C., March 17th, 1896.

HERBIVOROUS ANIMALS AS MEAT-EATERS.

To the Editors of THE LANCET.

SIRS,—I shall gratefully appreciate the favour of information as to well authenticated instances of herbivorous animals becoming occasional meat-eaters. In his "Chemistry of Cooking" Mr. Mattieu Williams alludes to a curious case of carnivorous cannibalism in a pet sheep, which he saw steal and devour raw mutton chops. This animal enjoyed robust health and was by no means ferocious. In semi-Arctic climates, such as semi-isolated districts in northern Norway, it is not an uncommon practice when grass and roots are exceedingly scarce to supplement the food of the cows with raw fish, which communicates a fishy taste to the milk. On the other hand, the *Journal d'Hygiène* of May 3rd, 1894, gives an instance of a cat having adopted almost an exclusively *bonâ-fide* vegetable diet. In the case of men becoming what is absurdly mis-termed "vegetarians" it must be remembered that even their strictest "vegetarian" diet is largely composed of animal substances, as milk, butter, eggs, cheese, and the like. The deficiency of fat in most vegetable foods can be supplied from pure cocoa or chocolate, which contain an excess of fat. In his "Don Juan" (II., 67) Lord Byron has thus happily summed up the whole question:—

"But man is a carnivorous production,
And must have meals, at least one meal a day;
He cannot live, like woodcocks, upon suction,
But like the shark and tiger, must have prey:—
Although his anatomical construction
Bears vegetables, in a grumbling way,
Your labouring people think beyond all question,
Beef, veal, and mutton, better for digestion."

I am, Sirs, yours faithfully,

J. LAWRENCE-HAMILTON, M.R.C.S. Eng.

Sussex-square, Brighton, March 13th, 1896.

ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—May I be permitted to bring before other principals my experience of the above during the last ten years and ask for theirs?

1. Satisfactory, remained three months, and left to take hospital appointment. 2. Very satisfactory, remained nearly three years, left to take practice of his own. 3. Very satisfactory, remained one year, left to take appointment abroad. 4. Most unsatisfactory, fits of drunkenness forgiven three or four times, left a housemaid pregnant (stayed eight months). 5. Unsatisfactory, knew nothing of his work, remained one month. 6. Unsatisfactory, never worked, remained six months. 7. Unsatisfactory, repeatedly drunk, but kept him six months. 8. Fairly satisfactory, but very forgetful, remained one year. 9. Satisfactory, and hard working, remained two years, left to enter partnership. 10. Very satisfactory, remained ten months, left to enter partnership. 11. Unsatisfactory, remained two months. 12. Arrived drunk, same condition next day, discharged at once. 13. Summarily discharged for drunkenness, fighting in a public-house, and obscene language in street, police having to be sent for. Nos. 2. 4. 5, 6, 9, 10, 11, and 12 were obtained through agencies, 7 and 13 were obtained through advertisement, the remainder through private sources. All were doubly qualified and all possessed excellent testimonials. These latter I have long disregarded, and, for my part, I am sure the only safeguard is a reference from the last principal, especially as to sobriety, and this seems a most terrible stigma on our profession.

I may add that I find most assistants lamentably ignorant as to the use of drugs; one and all say they are never taught this at the hospitals.

I am, Sirs, yours truly,

March 9th, 1896. A SORELY-TRIED PRINCIPAL.

THE BATTLE OF THE CLUBS.—XXV.[1]

(FROM OUR SPECIAL COMMISSIONER.)

(Continued from p. 752.)

NOTTINGHAM: GENERAL MEETING OF THE PROFESSION AND THE FORMATION OF A UNION.

THE members of the medical profession at Nottingham have now fairly entered into the lists and are arming so as to take their part in the Battle of the Clubs. The initiative in the movement is due undoubtedly to the Nottingham Medico-Chirurgical Society. Matters reached the climax at a meeting held by this body on Jan. 1st last. This is, nevertheless, a purely scientific society. It is not its business to attend to ethical questions, nor does it dispose of funds for such a purpose. There are about a hundred members, but they are not all Nottingham practitioners, for several come from considerable distances. At various meetings there had been a great deal of unofficial conversation respecting the abuses of contract work for clubs and for insurance companies, and the feeling that something must be done was so irresistible that the society could no longer remain neutral, but finally departed from its general rules and held an official discussion on the subject at a meeting which took place on Jan. 1st last. Several speakers then laid great stress on the fact that the names of certain medical men in the service of insurance companies had been advertised and pushed by the canvassers and agents of insurance companies. In seeking to persuade people to insure their lives the agents of the companies had extolled the ability of the medical men in their employ, &c. Thereupon Dr. Coulby proposed, and Mr. Stephens seconded, the following resolution:—

"That in the opinion of the society it is unprofessional and undignified for any medical man to accept the post of medical officer to so-called medical aid societies promoted by and for the benefit of men outside the medical profession."

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Aug. 24th, 1895, Brussels; (2) Aug. 31st, 1895, Brussels; (3) Sept. 21st, 1895, Portsmouth; (4) Sept. 28th, 1895, Portsmouth; (5) Oct. 5th, 1895, Eastbourne; (6) Oct. 12th, 1895, Lincoln; (7) Oct. 26th, 1895, Lincoln; (8) Nov. 2nd, 1895, Grimsby; (9) Nov. 9th, 1895, Bexhill-on-Sea; (10) Nov. 16th, 1895, Hull; (11) Nov. 23rd, 1895, Hull; (12) Dec. 7th, 1895, York; (13) Dec. 14th, 1895, Northampton; (14) Dec. 21st, 1895, Fermanagh Medico-Ethical Association; (15) Dec. 28th, 1895, Northampton; (16) Jan. 4th, 1896, Birmingham; (17) Jan. 18th, 1896, Birmingham; (18) Jan. 25th, 1896, Club Practices in Rural and Mining Districts; (19) Feb. 1st, 1896, The Formation of a Provident Medical Association at Folkestone; (20) Feb. 8th, 1896, The Manchester Medical Guild and Medical Aid Associations; (21) Feb. 15th, 1896, The Leicester and Leicestershire Provident Dispensary; (22) Feb. 22nd, 1896, The Organisation of the Profession at Leicester; (23) March 7th, 1896, Loughborough: Local Efforts Defeated by Consultants from Neighbouring Towns; (24) March 14th, 1896, Medical Aid Societies in Small Heath; Medical Clubs at Stockport.

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This resolution having been carried, the meeting proceeded to elect a committee to consider the best means of dealing with the question. The committee thus nominated held several meetings and drew up a code of principles which they considered should be observed by the medical officers in the service of medical aid societies. Another meeting of the Nottingham Medico-Chirurgical Society was held and the proposals of the committee were discussed and approved. During the course of the discussion a member, I was informed, related that when he gave up the post of medical officer to an Industrial Assurance Company the latter were not content with bringing a practitioner from London to take his place; the agents of the company actually followed him about, and when he called on his private patients forced their way into the house and tried to persuade his patients to join the Industrial Company. Thus did the agents canvass his own patients and try to get them to accept the services of the practitioner whom the company brought from London.

Another speaker pointed out that many well-to-do people belonged to the Industrial Company, though the majority of the members are undoubtedly persons who earn only small wages and who could scarcely be expected to pay a medical man's bill of £4 or £5. Several other members urged that the Nottingham Medico-Chirurgical Society must be careful not to place itself in antagonism with the general interests of the public, though it was also fully entitled to seek by every legitimate means to maintain the dignity and the true interests of the profession. There are in Nottingham a large number of poor who are anxious not to depend upon charity and therefore wish to be members of some institution that will provide for them in the hour of need without their being forced to seek eleemosynary relief. Two medical men present thought that Nottingham was in a more favourable position with regard to medical aid societies than many other towns, and urged that it would be better to let well alone. This was not, however, the feeling of the great majority, who were, on the contrary, of the opinion that the abuses could and must be checked, and this while providing at the same time for the legitimate requirements of the poor. So as to meet this latter consideration a deputation had been appointed to ascertain whether the Nottingham Provident Medical Aid Society was so managed or whether its management could be so altered as to conform with the principles enunciated. In that case the question arose as to whether it could largely extend its scope and allow any medical man practising in the town to enrol himself as one of the medical officers of the Provident Society. It was thought that with regard to a wage limit it would be difficult to enter into the detail of each member's income, but a maximum wage limit might be fixed and anyone proved to be in receipt of more than this sum excluded. Finally, it was resolved that a general meeting of the whole profession, whether members of the Nottingham Medico-Chirurgical Society or not, should be convoked by circular, for the purpose of taking united action.

On Feb. 19th yet another meeting was held at which I was able to be present. The terms of the circular for convoking a general meeting were then discussed, and it was decided that on the assembly of this meeting the action taken by the Nottingham Medico-Chirurgical Society should cease. It was to be hoped that the meeting would constitute a medical union formed for the sole purpose of dealing with ethical questions, and all fully qualified practitioners would be invited, indeed urged, to join. The Nottingham Medico-Chirurgical Society could then revert to its purely scientific mission and leave the newly-formed medical union to deal with the club question and all other such difficulties. In this, I take it, a very precious example has been given. There are in many towns medical societies which are precluded by their rules from dealing with ethical questions. These societies are the only medical organisations existing. Their membership, sometimes somewhat exclusive, generally includes the leading local practitioners, and it is difficult to take action outside a society which comprises the best elements of the profession. Consequently, if the societies stand still, it may well happen that nothing will be done. But, again, it is not the duty of these societies to take such action in such matters. Under these circumstances, the only course to follow is to resort to the good old expedient of a compromise. Let these purely scientific societies refrain from taking definite action, but let them take the initiative of convoking a meeting of all members of the profession for the purpose of forming a new society whose special mission it will be to take action. This is precisely what has been done at Nottingham and the example is a good one. The general meeting of the entire profession thus convoked was held at the Masonic Hall on March 11th and was very well attended. At one moment I counted sixty-nine medical men present but others came in subsequently, and there are not, I believe, more than 110 practitioners in the town and immediate neighbourhood. Dr. F. Robertson Mutch, President of the Nottingham Medico-Chirurgical Society, was in the chair and opened the proceedings by explaining that considerable friction had been caused by the manner in which medical aid had been organised by insurance companies. Several medical men in the employ of these companies had been anxious to resign their posts, but had been persuaded to wait a while so that they might all resign together. Before taking such action it was thought advisable that a meeting of all the local practitioners should be held. Then a union might be formed which would deal with the whole question of club practice. Such a union might also prevent other practitioners taking up the positions that were about to be relinquished; and, when necessity arose, would be able to apply to the consultants to assist in such endeavours. The proposed union would have to deal with another question. It would have to provide for the subscribers who would find themselves without medical aid when the actual medical officers had given in their resignations. Would it then be advisable to start a new dispensary or provident association entirely under the management of the medical profession, or could the existing Nottingham Provident Medical Aid Society be so modified and enlarged as to serve for that purpose? The whole of the payments effected to this society were divided among its medical officers, but it would have to throw its doors open to any medical man who liked to join. Mr. W. E. Tresidder, who had been acting as secretary, now announced that he had received letters from ten medical men of Nottingham who regretted their inability to attend the meeting but gave in their unqualified approval. Further letters had been received from Dr. Elder who agreed with the first seven principles, but disapproved of the eighth, which leaves the right to medical men to establish private medical clubs or dispensaries of their own. Mr. Marriott wrote saying that he was prepared to make any sacrifice in support of the movement, and more especially denounced the sick and annual societies held at public houses. These were by far the most degrading, for they encouraged drink and were really promoted in the interests of publicans. He also urged that a bill should be introduced into Parliament so as to place the members of the medical profession on the same footing as the members of the Incorporated Law Society. Mr. Ringrose wrote that he disapproved of penny payments, and that the minimum should be a penny halfpenny per week. Mr. Walter Thomson wrote that the General Medical Council should be made to act. It was no use giving up a position that had not been declared derogatory to the dignity of the profession by the General Medical Council, for others would step forward and take it. Dr. Marshall wrote that he thought an entirely new dispensary under the management of the profession should be organised. This terminated the correspondence, and it will be seen that both qualified and unqualified adhesions were unanimous as to the general principle of forming a union and as to what should be its purpose. The criticisms dealt only with matters of detail. Mr. Anderson now rose to propose the first resolution, which was to the effect that the meeting approved of the formation of a medical union or association having for its object the defence of the legitimate interests of the profession in Nottingham and district. Mr. Anderson thought that the large attendance at the meeting was a proof of the interest taken in the object held in view. The greatest grievance at Nottingham arose from the nature of the relations between medical men and insurance companies. Fortunately for them the subject was now well before the public and the medical press had rendered great service during the last year by discussing so fully "the Battle of the Clubs." The speaker had taken some pains to study the present state of affairs. He could not condemn clubs which organised medical aid. When the membership was limited to honest working people who could not possibly pay the ordinary medical fees such clubs were likely to prove beneficial both to the members and to the profession. He was anxious not to do anything that might disturb the confidence which the poorer patients reposed in the members of the medical profession; but with regard to other associations, companies, &c.,

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the position had become intolerable. These are limited liability companies founded merely for the purpose of making money. The medical officers were the servants of these companies and their science was utilised to yield profits to the shareholders. Only a portion of the subscription paid by the members was given to medical officers. Subscribers were admitted to membership even when they were ill and in possession of ample means. The agents went about advertising and "puffing" the medical officers of such companies. Yet on entering the profession every medical man had been warned that advertising was unprofessional and degrading. A strong stand must be made against this prostitution of science that tended to reduce medical men to the level of ordinary tradesmen. It was painful to think that men could be found who lent themselves to such a humiliating process. But this would not be so easy if there was a strong union. In the meantime it was no use resigning while others were ready to step into the vacant place. A union would, however, prevent this. Such unions had been formed in other towns, and Nottingham must follow the example already given.

Dr. Appleby Stephenson, as one of the oldest practitioners in Nottingham, was glad to second the resolution. Some form of medical aid, provided at small cost, he thought was necessary. However small the subscription it was better than nothing. Medical men did much work for nothing, and this tended to pauperise the recipients of such charity. The labourer was worthy of his hire even if the labourer was a medical man, yet in his younger days he had been compelled to attend on wealthy tradesmen who only paid club subscriptions.

Dr. Handford, as a member of the Medical Defence Union, was glad to support the resolution. The Medical Defence Union had done good work, but it did not see its way to deal with the club question. Then he had thought that the British Medical Association should take the matter up. He had, however, some insight as to what this Association could do, and concluded that for the moment it could do little or nothing. Perhaps, however, the memorandum of association might be altered; then the British Medical Association might be placed in a position to take up the matter effectively. If not then some other body must undertake the task of uniting the whole of the profession on this point. In the meanwhile and pending such general organisation it was the duty of one and all to develop local effort, and thus hold themselves ready, each in his district, for the final coalition to be established throughout the country. As local conditions vary considerably local unions will always be necessary.

The chairman now invited me to give some of the results of my investigations on the subject. The meeting, by the warm reception given, testified to its appreciation of the work done by THE LANCET in this respect. I pointed out that it seemed to me the question should be divided under three heads. First, the grievances of the profession; secondly, the grievances of the public; and, thirdly, the possible remedies. It was not necessary to dwell on the first phase as the medical men present were familiar with their own grievances, but I pointed out that the insurance companies had obtained a still greater hold on other towns. They persuaded young and inexperienced medical men to set themselves up in poor quarters of a town so that they could not get private patients and, indeed, the companies gave them so many club patients that no time remained to build up a private practice. The medical officer thus became absolutely dependent on the insurance company, and was compelled to waste his life giving visits and consultations for an average pay of 2*d*. to 4*d*. each. Abuses arose, but the medical officer did not dare to complain; the company could always bring a new man on the field and deprive him of his livelihood. Such degradation of the medical profession was diametrically opposed to the interests of public health and of the poor. It must tend to render medical men callous, and left them no time to study the daily progress of their science. A medical man who was sweated, whose career was broken, who knew that he was exploited and the victim of many abuses, could not resist a natural sentiment of resentment, and he could not be expected to put his whole heart in his work. The public had everything to lose from such a state of things. On the other hand a medical officer who felt himself to be a free man, who received good pay from good patients, would joyfully devote some of his time to giving the best care possible to a few *bonâ-fide* workmen who could not be expected to pay more than club fees. The poor had everything to gain by excluding the rich from their medical aid organisations, for medical men would then be better able to afford to attend to the poor. Thus the required reforms would meet the interests of the public, and especially the poor. It was most important that the profession should make it very clear that they were not merely seeking to improve their own financial position. The first step to remedy the existing evils was to form a strong union, and I gave some description of the union formed by the medical men of Brussels, and the very strict discipline they had been able to enforce.

The resolution was then put and carried unanimously.

After some desultory conversation a resolution was moved to the effect that: "This meeting now constitutes itself into a union." This being carried unanimously, every member present may henceforth be considered as a member of the Nottingham and District Medical Union. It was moved and seconded that a temporary executive committee of twelve members be elected.

A series of recommendations to the committee were then discussed. It was proposed that the temporary committee should approach the Nottingham Provident Medical Aid Society with a view of so enlarging its scope of action as to embrace both the medical officers and the subscribers who might withdraw from the insurance companies. Mr. De Caux urged that one single medical aid society should be organised to replace all existing societies. Dr. Ransom replied that this was precisely what in the course of time would take place. Finally the following as recommendations to the committee of the union were adopted:—

"1st. That all receipts, after paying necessary expenses, should go to the medical men.

"2nd. That canvassing and public advertisement should not be allowed.

"3rd. That some evidence should be obtained of the financial position of persons wishing to join before they are admitted.

"4th. That each person should be medically examined before admission.

"5th. That medical aid societies promoted by and for the benefit of persons other than the proper members of such societies should not be countenanced.

"6th. That medical aid societies associated with life assurance should not be countenanced.

"7th. That no person, whether adult or child, should be admitted as a member of a medical aid society at a less charge than one penny per week.

"8th. That no objection should be entertained against private medical aid societies established by medical men, provided they conform to the above principles."

It was this last or eighth clause which gave rise to most objections, and possibly it would not have been endorsed otherwise than as a mere recommendation—a question to be studied.

Finally and before dispersing the following resolution was unanimously adopted:—

"That this meeting of the medical men of Nottingham and district, having formed an association in defence of their interests, most urgently appeals to the General Medical Council to support them in their action, and desires especially to draw the attention of the Council to the many evils, such as canvassing and public advertisement which exist in connexion with the medical aid societies promoted by insurance companies."

It took so much time to count the ballot papers that the meeting was dissolved before the result of the election for the members of the executive committee was known. It was, I should not omit to mention, agreed that a small levy of 5*s*. per member would be made to meet the preliminary working expenses of the union.

Altogether it may be said that the meeting was a great success. It was well attended and the proceedings were harmonious and unanimous throughout. The programme set forth was fully carried out. The union now exists and it only remains for it to take action.

On leaving the meeting my first thought was to make some inquiries concerning the Nottingham Provident Medical Aid Society which it is proposed should take the place of the medical aid societies organised by speculating insurance companies. This society I found had been established in 1859 by Mr. Martin, a Nottingham cloth merchant. Mr. Martin was animated solely by motives of philanthropy. He practically founded and managed the institution and did the whole of the work for nothing. All the money subscribed was divided among the medical men who attended the patients. But at one period a deduction of 10 per cent. was made so as to build a dispensary. This project, however, was after a time abandoned, and on Mr. Martin's death the money thus collected was used to pay a small fee to the secretary, who received the subscriptions and kept the books. Still the whole cost of management does not amount to 10*s*. a week, and as this is taken out of the reserve fund the medical

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officers at present get the entire amount paid in subscriptions. But when the reserve fund is exhausted then it will be necessary to make some slight reduction from the amount paid to the medical men, so as to provide for the working expenses. There are actually about 2000 members of this Society. Each medical man examines the members who wish to be on his list and can refuse to accept them if he considers they can afford to pay proper fees. If any abuses have arisen it is the fault of the medical men themselves who have not been sufficiently strict in examining the candidates. As at present constituted members pay 1*d.* per week and children under twelve years of age ½*d.* They have to bring their subscriptions to the office; there are no canvassers or collectors and therefore there is no touting. No one makes any money out of the institution or is in the least degree interested in enrolling more members. As it is organised for purely benevolent purposes there seems no reason why the rules of the society should not be modified in such a way as to meet the views of the Medical Union. If, however, this is not found practicable then the Medical Union will have to establish a medical aid association of its own.

THE BATTLE OF THE CLUBS AND MEDICAL TOUTING.

To the Editors of THE LANCET.

SIRS,—Portsmouth is not the only place where paid canvassers tout for patients to join a club. Some weeks since a friend of mine was in a house in the neighbourhood of Greenwich when a canvasser for a local medical man called for that purpose. There is a large club in that happy locality, where domestic servants in good situations are attended for a penny a week, children for a halfpenny a week, and babies for nothing.

I am, Sirs, yours truly,

DISGUSTED.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Hospital Responsibility and Scarlet Fever.

AN action of considerable importance was tried at the Birmingham County-court on the 13th inst., in which Alfred Keegan, carpenter, sought to recover £50 damages against the corporation of Birmingham. The action was in respect of alleged neglect of the authorities in discharging from the City Hospital a child who had not fully recovered from scarlet fever and thereby causing another child to contract the disease. The child in question was removed to the City Hospital on Aug. 24th last year; he was retained there until Oct. 6th, when the parents were notified that he was ready for removal. He was taken away the same day, when it was noticed that he had a discharging sore behind his ear. A medical man certified that he was still suffering from scarlet fever. He was isolated as far as possible at home, but several other children took the fever and one aged three and a half years died, none of them having had any previous illness. The question of the infectiousness of the disease in the desquamating stage was combated by the various medical men called, the medical officer in charge stating his opinion that "peeling was no test that it was unsafe to discharge a child." In this assertion he was supported by other medical men. The jury gave a verdict for the plaintiff for £50 and costs, adding that they did not cast any imputation upon the medical officer, but considered at the time of the case his staff was too small for the ward. A singular commentary upon the above case was enacted the same day at the King's Heath Police-court, near to the town, where the parents of two children were summoned under the Public Health Act for exposing their children whilst they were suffering from scarlet fever to the danger of the public. The desquamating stage in these instances was described by the medical officer of health as one in which the disease was readily spread, and "no wonder from such flagrant cases as these." Each defendant was fined 5*s.* and costs. Some authoritative expression of opinion would be valuable for the guidance of the profession and the safety of the public.

The General Hospital.

The report of this institution for the past year has just been issued. It shows that the total expenditure was £16,660 16*s.* 8*d.*, being £300 12*s.* 10*d.* less than the previous year. The average cost of each in-patient was £2 11*s.* 1*d.*, against £2 13*s.* 10*d.* in 1894. The number of in-patients shows an increase of 125 as compared with the previous year. The out-patients were 2773 more. A large increase has taken place in the number of serious surgical operations; thus in 1894 the number was 854; and in 1895, 1055. The committee also report that the new General Hospital is making rapid progress. The tenth annual report of the Jaffray suburban branch is also included with the present hospital. During the year 256 patients were admitted, including 41 children. The average stay in the hospital was twelve and a half weeks. The committee report that there are nine beds endowed, and point out how much good may be yet done in this direction.

Birmingham and Midland Hospital for Women.

The annual meeting was held on the 15th inst., the chair being taken by the Countess of Dudley. The management committee reported that the total number of new and old cases treated during the year was 17,563; 359 patients had been admitted to the in-patient department during the year, an increase of 8; and the total number of operations had been 355, an increase of 12. A new regulation had been made with regard to the admission of patients whose usual place of residence is more than twenty-five miles from Birmingham. Any such patient would now only be admitted after the payment of the sum of £4, the average cost to the hospital. It was pointed out that the subscription list even as increased this year is under £600, and that the receipts from the registration fees had decreased. The usual votes of thanks were passed.

Birmingham and Midland Ear and Throat Hospital.

On the 13th inst. the fifty-first annual meeting was held under the presidency of the mayor. The honorary secretary reported that the total number of cases registered during the year was 5707, being 222 less than in 1894. The cases admitted from ninety-six places beyond Birmingham and its suburbs were 631 in number. The registration fees paid by the patients amounted to £427 17*s.* 6*d.*, and formed a large proportion of the hospital income. The annual subscriptions received showed an increase over the previous year. Lord Leigh was re-elected president and votes of thanks were passed.

March 17th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Health of Liverpool.

THE demolition of insanitary property and the consequent problem of housing the displaced poor have been engaging the attention of the city council for some time past. Application is to be made to the Local Government Board for powers to borrow the sum of £12,000 for the purpose of carrying out the scheme of the city engineer to erect artisans' dwelling-houses in some streets where the houses had been condemned as insanitary by the medical officer of health, the death-rate in three of those streets having sometimes been as high as 70 per 1000. Much credit is also due to the council for the numerous efforts made to afford healthy surroundings to the inhabitants in the lower parts of the city, where the many open spaces and cultivated disused churchyards are in pleasing contrast to the condition of those localities not many years since. At a recent meeting of the Health Committee Dr. Hope said that there was a great decrease in infectious cases, the Corporation hospitals were comparatively empty, and there was not a single case of small-pox. The death-rate for the week ending March 7th was 24 per 1000, as compared with 44 per 1000 at the same period of last year, the average of corresponding periods for the last ten years in the former city area being 30·7 per 1000.

Royal Southern Hospital.

The law fixing the age limit of tenure of office by the honorary medical officers of this hospital has been so altered as to empower the committee to retain their services under "exceptional circumstances." This is generally looked upon as an abrogation of the sixty years of age limit and is not altogether viewed with favour by the younger members of the profession.

Ladies' Charity and Lying-in Hospital.

The proposed alteration of rules, dealing with the visits o

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the medical staff to the wards of this hospital, has given rise to much unfavourable comment. The committee cannot be accused of under-estimating the qualifications of their matron and nurses, whom they propose to make responsible in future for the general treatment of the patients to the exclusion of the medical staff, who are no longer to make their periodical visits unless when sent for in cases of emergency. This is very properly objected to on the part of the staff, who consider themselves responsible for the health and treatment of the patients in general, and in consequence have threatened resignation should this proposed change be persisted in. The staff have no representation on the committee, as is the custom at other Liverpool charities, which may account for this unique action on the part of that body, as, were the medical board represented there, the unreasonable character of the proposed alteration could have been pointed out and much unpleasant feeling have been thereby avoided. It is rumoured that the committee is reconsidering its position in the matter, which is to be sincerely desired. It is not in the interests of the charity that the services of its medical staff should be depreciated in the estimation of the nursing department, as this invidious proposition would certainly tend to do. It is to be hoped that better counsels may prevail and that harmony may be restored between the committee and a most efficient medical staff who enjoy the respect of the profession in Liverpool.

Liverpool Dispensaries.

This charity, one of the oldest in Liverpool, held its annual meeting on Feb. 27th under the presidency of the Lord Mayor. The committee bewail the large number of wounding cases, also the mortality of very young children, due in many cases, it is to be feared, to the insobriety of parents. The number of infectious cases reported to the medical officer of health had been 528, being 300 less than in the previous year. The total number of patients treated at the three dispensaries amounted to 63,446, being an increase of 6704 over the year 1894. The number of patients treated at their own houses (included in the foregoing figures) were 9468. The total number of attendances on all classes of patients was 175,283. The committee deplore the continued falling off of annual subscriptions.

Suspected Poisoning by "Transfer Papers."

An inquest was opened at Seaforth on the 13th inst. concerning the death of a boy named Henry Bridge living at Seaforth who had died under somewhat peculiar circumstances. The evidence suggested that the boy had died from some irritant poison contained in transfer papers "made in Germany," which he had been in the habit of affixing to the back of his hand, afterwards licking off the impression with his tongue. The inquest was adjourned in order to have the transfer papers analysed.

Stanley Hospital.

The twenty-ninth annual report of this hospital showed that the expenditure for 1895 had exceeded the income by £733. The Lord Mayor, who presided, said it was obvious that when the committee had to take the legacies in order to meet current expenses they were within measurable distance of financial distress. Lord Derby has acceded to the invitation of the committee to perform on the 20th inst. the ceremonial of unveiling the memorial window which has been placed in one of the wards as a tribute to the late earl, who was president of the hospital. There is a vacancy for the post of assistant physician owing to the appointment of Dr. Abram to the Royal Infirmary, where there are now four former members of the staff of the Stanley Hospital.

March 17th.

WESTERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Annual Meeting of the Bristol General Hospital.

THE annual meeting of the governors of the Bristol General Hospital was held on March 9th under the presidency of the mayor. The report stated that the annual ordinary income is wholly inadequate to meet the constantly increasing expenditure, the latter now reaching £11,000 per annum, to meet which the normal revenue, exclusive of large donations and legacies, does not amount to £8000. The collections from places of worship had been the smallest received for a large number of years. £1575 had been spent upon repairs and efficient drainage. It has been found necessary to provide increased accommodation for the nursing staff, and a commodious wing has been built which will shortly be ready for use. This addition will cost £5000, towards which some large donations have been promised, but £3000 is still needed. The medical report, presented by Dr. J. Lacy Firth, showed that 2273 in-patients and 26,411 out-patients had been treated during 1895. The daily average of in-patients had been 172·5. The financial position of the hospital is extremely unsatisfactory, the income not meeting the expenditure by £3000, and it has been necessary, in order to avert the closing of some of the wards, to appropriate the greater portion of the year's legacies to meet the current expenses. Doubtless when the citizens of Bristol realise the want of funds of this excellent institution they will contribute more generously and place the finances of the hospital upon a more satisfactory basis.

The Bristol Eye Hospital.

The annual meeting of the Bristol Eye Hospital was held on March 13th, the Mayor presiding. During the past year 4589 (new) out-patients were attended and 393 (new) in-patients; the latter had been 40 in excess of 1894. The recent increase in the number of beds entails a heavy expenditure, and the committee regret an adverse balance of over £200. The committee are anxious to increase the annual subscriptions so as to enable them to carry on the work year by year free of debt, and appeal for more liberal recognition.

Another Hospital Destroyed in Gloucestershire.

Considerable dissatisfaction has been felt at South Cerney owing to two brick cottages having been retained there for any cases of small-pox which might occur in the Cirencester urban or rural sanitary districts. A memorial to the Rural Council from the residents, presented on March 9th, was not acceded to, and since then the premises have been watched by the police. On the evening of March 12th, however, during the absence of the constables, the premises were entered, the front window panes broken and the back walls of the building completely battered down, leaving the roof but slenderly supported. No arrests have been made.

The Bedminster Board of Guardians and Vaccination.

At the last meeting of the Bedminster Board of Guardians, held on March 3rd, the vaccination officer reported that in the Bedminster district there were about 1000 children who had not been vaccinated, and he asked for permission to take proceedings against the defaulters. Unfortunately, the resolution to permit this was defeated, and by a majority of one vote an amendment was carried that prosecutions should not be allowed until after the report of the Royal Commission had been received.

Insanitary Condition of Cowbridge, Glamorganshire.

Dr. R. Bruce Low, who has recently issued his report to the Local Government Board on the sanitary condition of Cowbridge, states that as the result of his inspection the conclusion seems unavoidable that the corporation of Cowbridge have failed to carry out the duties imposed upon them by the Public Health Act of 1875, more especially in neglecting to provide a proper water-supply and a scheme of sewerage for the district. The report further adds that statistics from the borough showed that Cowbridge had a death-rate in excess of similar localities in the rest of England or Wales. The Welsh motto upon the Cowbridge corporation crest is "Awn Rhagom" ("Let us go forward"), but it cannot be said, adds Dr. Low, that the town council have acted up to their motto, for they have in sanitary matters, if not in other respects, been standing still instead of going forward.

Singular Inquest at Swansea.

Evidence of how emphatically medical men may disagree over a case was shown in a very marked manner at an inquest held in Swansea on March 9th upon the body of a woman who had died on March 5th. The deceased's medical attendant stated that in his opinion an incomplete abortion had taken place, the woman having been about three months pregnant. He had removed a decomposed clot with the assistance of another practitioner who had administered chloroform. The woman denied that she was pregnant or that anything had been done to her. He had been called in to attend her for phthisis. A post-mortem examination had been performed by another surgeon, who stated that there was no evidence of deceased having been pregnant—at

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any rate, within the past month or six weeks. When this statement was made the medical attendant interposed and said that the placenta could be felt and moved easily. The previous witness said that he could not account for the placenta. The practitioner who assisted at the post-mortem examination also stated that the woman had not been pregnant. One of the jurymen wanted another post-mortem examination made, as he "did not feel sufficiently convinced to vote either way," and another remarked that "there must have been pregnancy," to which the medical attendant replied, "Certainly there was." A verdict was returned that the deceased died from blood-poisoning caused by laceration of the uterus due to violence, but by whom inflicted there was no direct evidence to show.

A New Hospital for Newport.

Dr. Garrod Thomas and Mrs. Thomas having promised £5000 towards a new hospital if another £15,000 can be raised a meeting for this purpose was held at Newport on March 11th. Lord Tredegar, who presided, gave a splendid site for the building, said to be worth £9000, and nearly £6000 was collected in the room. Lord Tredegar also promised to give a large sum of money if it was necessary. It was resolved that the hospital when erected should be called "The Newport and Monmouthshire Hospital." All the bankers in the county will be asked to receive subscriptions, and these may be paid either in one sum or by three annual instalments.

The late Mr. E. H. Clarke.

Mr. E. H. Clarke, L.R.C.P. Lond., M.R.C.S. Eng., who was on a voyage to South America, was swept overboard from a steamer off Monte Video and drowned on Feb. 17th. Mr. Clarke had been a student at the Bristol Medical School and obtained his qualifications in 1893. He had held the appointments of junior house physician and junior house surgeon at the Bristol Royal Infirmary, and was only twenty-seven years of age. Much sympathy is felt with his relatives, who only heard the news of his death on March 9th.

Death of Mr. William Henry Charles, L.R.C.P. Lond., M.R.C.S. Eng., of Kidwelly, Carmarthenshire.

Mr. W. H. Charles died of phthisis at Kidwelly on March 9th, aged thirty-two. Mr. Charles was educated at the Middlesex Hospital, and in 1889 obtained the qualifications of L.R.C.P. Lond. and M.R.C.S. Eng. Mr. Charles commenced practice in Kidwelly some five years ago, and was greatly respected by all with whom he came in contact. Previously to his coming to Kidwelly he was in practice at Morriston, and on his leaving there was presented with two illuminated addresses from the inhabitants.

March 17th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The University of Edinburgh.

A PARLIAMENTARY paper has been issued containing a report by the University Court to the Secretary for Scotland as to statistics for the academical year from Oct. 1st, 1894, to Sept. 30th, 1895, under the provisions of the Universities (Scotland) Act of 1889. The total number of students matriculated during the winter session was 2747, of whom 1354 were students of medicine. There were 7712 members on the General Medical Council for the year ending Nov. 30th, 1895. The following are the salaries above £1000 attached to the medical chairs:—Chemistry (Alex. Crum Brown, M.D., D.Sc.), £1828; Natural History (James Cossar Ewart, M.D.), £1615; Botany (Isaac Bayley Balfour, M.D.), £1515; Anatomy (Sir William Turner, M.B., &c.), £2012; Physiology (William Rutherford, M.D.), £1734; Pathology (William Smith Greenfield, M.D.), £1482; Materia Medica (Thomas Richard Fraser, M.D.), £1290; Medicine (Sir Thomas Grainger Stewart, M.D.), £1058; Surgery (John Chiene, M.D.), £1209; Principal (Sir William Muir, K.C.S.I., &c.), £1375.

Close of the Winter Session.

The winter session of the medical classes both in the University and in the Extra-mural School will close on March 20th. The session on the whole has been uneventful.

Royal Edinburgh Hospital for Sick Children.

At a meeting of directors of this hospital held last week David M. Hutton, B.Sc., M.B., C.M., and Percy T. Hughes, M.B., C.M., were elected resident physicians in the hospital for a period of six months dating from May 1st.

The Odonto-Chirurgical Society of Scotland.

The annual general meeting of this society was held on March 13th at 31, Chambers-street, Edinburgh. The chair was taken by Mr. J. Stewart Durward, L.D.S., the president. Mr. Oswald Fergus (Glasgow) spoke on the subject of Abnormalities in the Relationships of the Mandible to the Maxillæ, with Notes of a case of Closure; and Dr. Miller (Edinburgh) described a case of Sarcoma of the Lower Jaw. A number of the members and friends dined together in the evening, Mr. Fergus acting as croupier and Mr. J. S. Amoore, one of the vice-presidents of the society, as president.

Regulation of Edinburgh Dairies.

At a meeting of the Public Health Committee of the Edinburgh town council held on March 13th the new dairy regulations for the city, which are to come into force on May 28th, were approved. One of these regulations prohibits the sale in dairies of articles by which contamination of the milk might be brought about. No list is given specifying prohibited articles, but power is given to the medical officer of health to say what articles come under this category.

The Royal Society of Edinburgh.

Among other papers read at a meeting of this society, held in the Royal Institution, Edinburgh, on the evening of March 16th, was an interesting communication by Dr. Hepburn on the Structure of the Human Hand. He described the dorsal interossei and suggested that the palmar interosseous muscles should be called the short flexors of the individual fingers. He endeavoured to prove that the human hand did not differ in any essential particular from the hand of the anthropoid ape, and showed that on more accurate dissection the human hand displayed structures, hitherto unobserved, that enabled it to fit in much more closely with the scheme of the hand in comparative anatomy.

Conviction under the Margarine Act.

At the Linlithgow sheriff's court on the 16th inst. a grocer was fined the sum of £10 or one month's imprisonment for having sold to the district sanitary inspector one pound of margarine which was not labeled margarine as is required by the Act. The margarine, which was sold as butter at 1*s.* per pound, contained 10 per cent. of butter fat and 9 per cent. of fat which was not butter.

New Water-supply for Dunbar.

As a result of the contamination of the old water-supply of this popular watering-place, which at the end of last year gave rise to a serious epidemic of typhoid fever, the authorities have found it necessary to make arrangements for an entirely new supply of water at a cost of about £3000. The new supply was available for consumption in the middle of last week and on Saturday afternoon the formal inaugural ceremony of "turning on" the water was performed. Through the kindness of Mr. and Mrs. Nisbet Hamilton-Ogilvy of Biel the supply has been obtained from the "cauld" burn about five miles distant from the town. Mrs. Hamilton-Ogilvy performed the duty of declaring the new water-supply open. After the out-door ceremony there was a cake and wine banquet in the Assembly Rooms.

Annual Dinner of the Edinburgh Royal Medical Society.

This interesting function was held on March 13th. Mr. Watson Cheyne, F.R.S., was the guest of the evening.

Anderson's College Medical School, Glasgow.

The governors have appointed Mr. Jno. Edgar, M.A., B.Sc., M.B., to the chair of midwifery, vacant by the resignation of Dr. W. L. Reid. Dr. Edgar is one of the district physicians to the Maternity Hospital, and assistant physician in the gynæcological department of the Royal Infirmary.

Queen Margaret College, Glasgow.

A statement has recently appeared in the press suggesting that the acquisition of Queen Margaret College by the University of Glasgow has, from a financial point of view, been a bad bargain for the University. In support of this figures are quoted showing that the annual income from the College has hitherto fallen short of the expenditure by about £400. It is, however, forgotten that the University would have been compelled, in order to meet the demand for university education for women, to have expended a considerable capital sum, and there is no reason to believe that the immediate income would in any case have met the annual

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expenditure in the shape of lecturer's salaries, &c. Further, the advantages attending college buildings and laboratories devoted solely to women students are such that the increase in the number of students, which is already marked, will in all probability be such that the expenses of the College will be more than adequately met by the income.

Milk-supply in Relation to Tuberculosis.

Dr. A. K. Chalmers delivered a lecture on this subject to the Glasgow Dairyman's Association on the evening of the 11th inst. He deprecated any feeling of antagonism between the city health authorities and those engaged in supplying milk to the inhabitants, and urged that it was an object of interest to all to prevent the sale of milk that might be the means of conveying disease. The question was one of prime importance to the consumer, and the solution would only be satisfactorily reached when all animals affected by tuberculosis in any form were absolutely excluded from dairy-farms.

Glasgow Microscopical Society.

The society met on the 12th inst., when a demonstration of the electric lantern microscope was given by Dr. Jno. Macintyre and Dr. Chas. Workman. The structure and working of the microscope were fully explained and numerous micro-photographs of the specific organisms of various diseases were exhibited.

Port Glasgow Medical Officership.

The town council of Port Glasgow have appointed Dr. Campbell Munro, medical officer of health for the burgh, and the county council of Renfrew—Dr. Munro being health officer to the county—have given their assent to the appointment.

Glasgow University Medico-Chirurgical Society.

At the annual business meeting on the 13th inst. Dr. J. B. Russell, LL.D., was elected honorary president of the society. General satisfaction will be felt, by the way, at the news that Dr. Russell has now so far recovered his health that he expects in the course of a few weeks to return to his duties as medical officer of health for Glasgow. The new president of the society is Mr. Thos. Hunter, M.A., B.Sc.

Important Sanitary Prosecution.

The Glasgow Police Commissioners have recently had judgment given in their favour in a case in which the property owners failing to introduce a proper drainage system into their properties the authorities proceeded to do so and then sued the owners for the expense. On two recent occasions outbreaks of enteric fever have occurred in the tenement in question and the sanitary inspector after examination pronounced the drains defective. The owners, however, contended that, as the closets were all external to the houses, drains were only needed for the purpose of carrying off rain-water from the roof and gravitation water from the wash-houses, &c., and that therefore they could not be compelled to provide a system of drainage suitable for a tenement having internal water-closet accommodation. Such an arrangement the sanitary authorities insisted on, and their view has now received legal sanction.

Aberdeen Medical Staff Corps.

The corps will go into camp within the policies of Pitfour House from June 4th to 8th next, the inspection being probably on Saturday, June 6th. Fifty members are expected to go to Aldershot some time in August, the War Office having given the necessary sanction.

Aberdeen District Nursing Association.

The annual meeting of this society was held on Monday. During 1895 the number of cases in the city (including Woodside) of sick poor attended in their own homes was 753, and the number of visits 19,020, a satisfactory increase in the beneficent work of the association. The staff consists of a superintendent and five fully trained nurses. It is hoped to increase the number this year, but last year's accounts showed an adverse balance of £153. The bazaar account brought out a favourable balance of £628, out of which £200 were paid for repairs and alterations in the nurses' home. It is hoped that increased contributions will wipe off the debt of £153 and leave the balance of the bazaar fund available for extending the work of the association. The inspector of the Queen Victoria Jubilee Institute reported very favourably on the work of the association.

New Sanitary Appointment in Aberdeen.

Mr. John Low has received the post of inspector previously held by Mr. John M. Carnie, resigned. In order to enable Mr. Low to act with the same powers and authority as the chief sanitary inspector during the absence of the latter, the town council has appointed him (*a*) to be inspector of unwholesome food under the Aberdeen Police and Waterworks (Amendment) Act, 1867, and (*b*) to be a sanitary inspector under the Public Health (Scotland) Act, 1867, and Acts amending the same.

March 17th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Receptions at Irish Hospitals.

THE annual report of the Coombe Lying-in Hospital has just been published and discloses a very satisfactory condition of affairs in connexion with this old-established institution. Attention is called to the progress of the hospital in every department and to the fact that at the end of his term as assistant master Dr. Cole-Baker was recently appointed supernumerary assistant to the master as a recognition by the board of its entire approval of the manner in which he conducted the management of the hospital at a time when, as acting master, it was under his sole control and the affairs of the institution in a notoriously critical condition. Owing to the success of the aseptic arrangements the rate of mortality in the maternity wards is stated to be at the low figure of 1·00 per cent. The antiseptic method of treatment and its requirements now necessitated, however, some considerable expenditure in bringing the various medical and surgical appliances up to date. In aid of the funds of the charity a carnival, which will include a fancy dress ball, under the patronage of his Excellency the Lord-Lieutenant and the Countess Cadogan, will be held in the Rotunda on Thursday evening, the 19th inst., and a special train will be run from Westland-row on the following morning to meet the convenience of residents at Kingstown and Daltrey. As has been already mentioned in THE LANCET, the formal opening of the National Hospital for Consumption for Ireland by the Marchioness of Zetland has been fixed for the same day, the 19th inst., at Newcastle in the county of Wicklow. The guests who have been hospitably invited by the board to be present at that ceremony and to lunch in the new buildings have been presented with tickets for a special train which will leave Newcastle for return to Dublin at 4.25 P.M., so that there will be no difficulty about being present at both receptions.

The Medical Benevolent Fund Society of Ireland.

At the meeting of the Belfast branch of this society, held on March 11th (the Lord Mayor presiding), I find that a very large number of medical gentlemen in the city do not contribute towards the funds of this charity and during the year only £59 3*s.* 6*d.* was received. A sum of £55 was granted to five applicants. Dr. Merrick was elected president of the branch for the ensuing year, Dr. M'Caw secretary, and Mr. F. E. Beck treasurer.

Nursing in the Ballymena Workhouse.

An influential deputation of ladies and gentlemen appeared on March 14th before the Ballymena board of guardians pressing upon their attention the importance of appointing a third properly qualified nurse in the infirmary. A letter was also read from the Local Government Board earnestly impressing upon the guardians the desirability of acting upon the recommendations of the inspector and their medical officer in their appointment of an additional nurse. Finally, after a prolonged discussion it was decided by a vote of 14 to 7 to appoint an additional nurse to the infirmary.

The Downpatrick Guardians.

On March 14th an inquest was held in Downpatrick in reference to the death of a labouring man who had been found dead in bed the previous day. It would seem that on that day (March 13th) a woman came to Mr. Olphert's (dispensary medical officer) with a red line, but as he was attending the county assizes as a Crown witness he sent the woman to the relieving officer with the line, as he had instructed him to act during his absence at the assizes. As the relieving officer could not be found the woman went to the honorary secretary of the dispensary committee, who gave her a line to another medical man asking him to attend the deceased, but he was

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not at home. In his evidence Mr. Olpherts stated that when he received the Crown summons he intimated the fact to the dispensary committee, who immediately reported the matter to the board of guardians, but the latter body refused to appoint a locum-tenent. The jury returned a verdict to the effect that the man was found dead on March 13th, and that as a jury they considered "that the board of guardians are culpably negligent for not providing proper medical assistance for the Downpatrick dispensary district during the absence of the medical officer at the assizes." The coroner said it was a very proper verdict, and he would forward it with his report to the Local Government Board.

March 17th.

PARIS.

(FROM OUR OWN CORRESPONDENT)

The Oxidising Properties of the Viscera: a Comparison.

MM. ABELOUS and Biarnès communicate[1] the result of their researches on this question. The oxidising power of a viscus was tested by its effects on salicylic aldehyde. The following is the list given by the experimenters:—Highly oxidising: spleen, lungs, and liver. Moderately oxidising: kidney, suprarenal capsules, pancreas, and thyroid body. Only slightly oxidising: nerve centres and muscles. It will thus be seen that the principal seat of oxidation is in the glandular organs and that, contrary to accepted ideas, chemical process is nearly *nil* in the nervous system and the muscles. Should the contention of MM. Abelous and Biarnès be upheld the dictum of physiologists will require some revision.

A Case of Simulated Double Amblyopia.

It cannot be always easy to convince oneself of the falsity of a claim to blindness advanced by an individual, more especially if the person happen to be, as in the undermentioned instance, unfortunate enough to be a denizen of a prison. One morning a prisoner was led to the consulting-room of Dr. de Beauvais, principal medical officer of Mazas. The man stated that a flash of lightning had on the preceding evening totally deprived him of sight and that he was incapable of distinguishing night from day. Neither eye presented any trace of inflammation and the pupils dilated in the dark. A blister was applied to the nape of the neck and a strychnine liniment was prescribed. Dr. Trousseau, surgeon of the Quinze-Vingts Eye Hospital, could discover no lesion of the fundus and he particularly noticed that the pupils were mobile. Transferred to the Prison of Sainte Pélagie, Dr. Dehenne there came to the same conclusion as Dr. Trousseau, and remarked that blindness from such a cause was a phenomenon unknown. During the six months' detention of this prisoner he was subjected to close observation both night and day; only on one occasion did he play his part badly when he spoke to the prison director, whose presence he could only have detected visually. On his discharge he travelled alone to the department of the Nièvre. In the course of the discussion that followed this communication[2] Dr. Valude remarked that persistence of the pupillary movements was incompatible with total blindness.

The Mortality from Measles at the Hôpital Trousseau in 1895.

Dr. Comby, physician to the above-named Children's Hospital, informs us[3] that last year 715 children were admitted into the special measles pavilion, which was for the first time left in the uninterrupted charge of one physician. This uniformity of treatment and discipline was, according to Dr. Comby, distinctly profitable to the little patients. The mortality was 14·4 per cent., the lowest rate yet reached at that hospital. The death-rate in the same isolated pavilion was:—

	Per cent.		Per cent.
1890	32·6	1893	25·6
1891	28·6	1894	25·8
1892	26·6		

It is interesting to compare these figures with those of other children's hospitals.

Enfants-Malades.

	Mortality per cent.		Mortality per cent.
1884	43	1887	40
1885	33	1888	42
1886	48		

Enfants-Assistés.

	Mortality per cent.		Mortality per cent.
1882	45	1885	46
1883	47	1886	42
1884	57		

Antiseptic precautions have, however, enabled Dr. Sevestre to bring down the death-rate at the last-named institution to 21·3 per cent. during the latter half of 1888. Dr. Comby ascribes his success at the Trousseau Hospital to the suppression of the absurd rotation of physicians in charge, to the multiplicity of the wards (there are nine in number) allowing complicated cases to be further isolated, to systematic antiseptic irrigation of attainable cavities and mucous membranes, to the early discharge of the patients (measles not being, according to Dr. Comby, contagious during desquamation), and finally, to the employment of Roux's antitoxin, which saved 13 out of 15 children affected with diphtheria as a complication. Marmorek's serum was used in 5 cases of morbillous broncho-pneumonia; 2 perished and 3 survived. The mortality amongst these cases of measles according to age was as under:—

Under 1 year	33·3 per cent.
Between 1 and 2 years	29·5 ,, ,,
Between 2 and 5 years	8·9 ,, ,,
Above 5 years	3·8 ,, ,,

The comparative death-rates from complicated and uncomplicated measles were as below:—

Uncomplicated measles	1·8 per cent.
Measles complicated with broncho-pneumonia	81·39 ,, ,,
Measles complicated with whooping-cough	81·39 ,, ,,
Measles complicated with scarlet fever	31·25 ,, ,,
Measles complicated with diphtheria	13·33 ,, ,,

Death of Professor Sappey.

The mention of the name of Professor Sappey will carry back the thoughts of many of the readers of THE LANCET to their dissecting-room days, and they will, like myself, greatly regret to hear of his disappearance from our midst. He died on the night of the 13th inst. at his house in the Rue de Fleurus, having attained to the ripe age of eighty-six years. Marie Philibert Constant Sappey was born at Bourg-en-Bresse on Aug. 10th, 1810. He graduated M.D. at Paris in 1843 and was then appointed Agrégé des Sciences Chirurgicales. He then became Chef des Travaux Anatomiques, and after a period of extra-academical teaching as Professeur libre he succeeded Jarjavay as Professor of Anatomy at the Faculty in 1868. He had been a member of the Academy of Medicine since 1862. At the death of Milne-Edwards he was elected a member of the Académie des Sciences (Anatomical and Zoological Section), and was appointed a Commander of the Legion of Honour in 1887. His great works were "Traité d'Anatomie Descriptive," in four volumes, profusely illustrated, and "Anatomie, Physiologie, Pathologie des Vaisseaux Lymphatiques chez l'Homme et les Vertèbres," also in four volumes. Visitors to the Musée Orfila at the Faculty of Medicine will recall to mind the beautiful dissections by him of the lymphatics. Only a few years ago no student was without his work on Anatomy; "Sappey" was the "Gray" of French students. More modern manuals have now deposed it from its pre-eminent position. Professor Sappey retired from his chair of Anatomy a few years ago, and was succeeded by the present occupant, Professor Farabeuf. Professor Sappey occupied a seat in the Senate for some years, and his favourite walk was in the Luxembourg Gardens. His handsome clean-shaved face was peculiarly striking, and his dignified, courteous bearing and his kindness of heart rendered him a great favourite of generations of students. He was buried to-day at noon, the service taking place at the church of St. Sulpice. Your readers will join with me in regretting the demise of a notable anatomist.

March 17th.

[1] Société de Biologie, March 7th, 1896.
[2] Société de Médecine Légale, March 9th, 1896.
[3] Société Médicale des Hôpitaux.

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ROME.

(FROM OUR OWN CORRESPONDENT.)

The Abyssinian Débâcle.

SINCE my last letter fresh light, though still inadequate, has been thrown on the disaster of Abba Carima and its sequelæ. The battle itself was more stubbornly contested by the Italians than was at first supposed. Of the two brigades that bore the brunt of the Shoan attack, Da Bormida's and Albertone's, the former was nearly cut to pieces and its commanding officer fell fighting—"crivellato"—riddled with bullets. King Menelik's forces seem to have suffered heavily from the Italian artillery, as they were quite unable to follow up their advantage. But we are as yet without any satisfactory estimate of the dead, wounded, and missing, the names of the survivors as they come straggling into headquarters being given but little more. The agony of suspense in which thousands of families throughout Italy are still plunged is indescribable. It will, indeed, be weeks before the extent and depth of the disaster, or rather *débâcle*, are fully known.

The Wounded.

This, however, is fully ascertained, that the hospitals throughout the Colonia Eritrea are all too insufficient to accommodate, not to say treat, the sick and wounded. Whether at Massowah or Asmara the resources of infirmary and ambulance alike were speedily exhausted, and now the passenger steamers that serve as transport ships are bringing home relays of sufferers to be distributed over the hospitals at the Italian seaports, such as Palermo and Naples. What these poor fellows have to endure on the return voyage may be imagined, not a few of them having already succumbed and been consigned to a watery grave. The Neapolitan municipality has especially shown an example which other cities on the seaboard would do well to follow—enlarging the accommodation of the civil hospitals for the reception of the invalided and wounded as they arrive. Meanwhile all throughout the world the Italians wherever congregated are subscribing liberally in aid of the poor sufferers—from London to St. Petersburg, from Paris to Buenos Ayres—contributions being sent in which are duly and gratefully acknowledged in the journals here. It will be some time, however, before the medical aspects of the campaign assume tangible shape in special reports, for, according to General Baldissera, the confusion into which the Army Medical Staff and the Red Cross volunteers had lapsed under his predecessor is something incredible. At the successive defeats of Amba Alagi, Makaleh, Alequà, Saati, and finally, Abba Carima General Baratieri's improvidence or remissness fell not less severely on the medico-military than on the combatant arm.

The New Ministry.

The Marchese Di Rudini has formed an effective Cabinet drawn from both parties in the State. The Portfolio of Public Instruction, so ably conducted by Dr. Baccelli, is now in adequate, if less able, keeping. But the lack of funds, so severely felt hitherto, particularly in the equipment of universities, will be positively calamitous under the new administration. If Dr. Baccelli had so often to give a negative reply to appeals for better laboratories and extended clinical resources at the provincial medical schools, what will his successor have to say under a yet more restricted budget? To this has to be added the postponement of that enlightened scheme of university reform with which Dr. Baccelli's tenure of office was to have been crowned.

Professor Giovanni Rosmini.

The Milan School has lost a distinguished representative in Dr. Rosmini, director of the Ophthalmic Institute. He died on Monday, the 9th inst., at Nervi, where he was sojourning for rest and change. Born at Milan in 1835 he graduated, with high honours, at the University of Pavia and shortly afterwards was enrolled in the ranks of his country's defenders during the campaign of 1859–60. He greatly signalised himself under Garibaldi, and on Italy's unity and independence being won he threw himself with fresh energy into clinical and consultant duty. He did much to perfect ophthalmic surgery in his city and province and established for the poor an effectively equipped ambulance in which many an honest breadwinner was enabled to improve or retain his eyesight. He succeeded in founding the Ophthalmic Institute, of which he became director, and by his admirable expository power and success as an operator he drew around him a numerous band of students who still continue his good work throughout Lombardy and other provinces of the Alta Italia.

March 15th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

Inoculation of Guinea-pigs with Cholera Serum.

IN a lecture delivered before the Vienna Medical Society Professor Gruber said that a cholera culture injected into the peritoneum of a guinea-pig causes an intra-peritoneal disease by which two groups of symptoms are produced. The first is characterised by decrease of temperature and total prostration, the animal dying from paralysis of the respiratory centre; the special feature of the second group is septic peritonitis, a symptom which is, of course, not characteristic of cholera virus, as it may be produced by various micro-organisms. This inflammatory process takes place also after the injection of albuminates formed by the vibrio, for the toxic symptoms are due to the fact that the micro-organisms produce toxines in the peritoneal cavity. By inoculation with attenuated virus the guinea-pig may be immunised against this intra-peritoneal infection. After every injection the animals fall ill, but they show only local symptoms of peritonitis, which by degrees becomes less severe until complete immunity is attained. The immunisation against cholera is different from that against diphtheria and tetanus, for an animal inoculated against the latter two diseases becomes resistant against the virus, whereas one inoculated against cholera is immunised against the infection. In animals immunised in a higher degree the vibriones form themselves into clusters and are at last liquefied. This formation of clusters is a sign of their dying at the temperature of the body, whereas they may perish at a higher temperature without forming clusters. According to Professor Gruber the effect of the serum is either direct or due to the stimulation of the cells of the animal body by which their bactericidal faculty is increased. Inoculation of a strong serum produces a direct influence upon the vibriones, causing them to lose their mobility through their protoplasma becoming viscous.

Physiological Action of Suprarenal Extract.

After section of the medulla and extirpation of the spinal cord Dr. Biedl has succeeded, by injection of suprarenal extract, in producing a blood pressure amounting to 160 mm. (= 6·3 inches) of mercury, and in prolonging the life of the animal, which would otherwise quickly succumb. In order to illustrate the importance of this fact he referred to the experiments of Stricker, who in 1877 proved that extirpation of both the cervical and thoracic parts of the spinal cord causes instantaneous stoppage of the heart's action. Death is due to anæmia of the heart, the vessels losing their tonicity and the blood being collected in the fully relaxed veins, so that the animal may be said to bleed to death into its own vessels. When the vagi are cut the strength and frequency of the contractions of the ventricle are augmented, and more blood flows through the arteries, producing a rise in the pressure to four or five times its original amount. Cybulsky, therefore, erred in supposing that there is a direct stimulation of the vaso-motor centre, for the action is essentially a peripheral one. On the other hand, Schaefer observed a direct action of the drug upon the muscular tissue of the smaller arteries.

Topical Medication of the Stomach.

Dr. Pick has published a method of introducing fluids or powders into the stomach so that they are uniformly distributed over the whole mucous membrane. He uses a thin œsophageal tube 71 centimetres (28 inches) long, which when fluids are to be injected has an extremity with numerous perforations, and when powders are employed it is provided with a pneumatic ball. The stomach is first rinsed with a sound, the end of which is then drawn back to the level of the cardia, and the catheter is introduced through the sound. As the stomach collapses through being empty air may be introduced before the injection. In chronic gastritis and hyper-secretion Dr. Pick has in this way applied solutions of nitrate of silver varying in strength from 0·1 to 0·5 per cent., and he has also introduced dermatol in powder by means of the pulverisator.

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Etiology of "Schluck-Pneumonie."

"Schluck-Pneumonie" and "Inhalations-Pneumonie" are terms used in Germany to denote that variety of pneumonia which is in most cases brought about either by the inhalation of septic particles originating in disease of the mouth or tongue or by the accidental entrance of foreign matter, such as particles of food, into the air passages. It may also follow surgical operations on the mouth. In Professor Gussenbauer's wards Dr. Kneibich has examined twenty-eight cases, comprising twenty of "Schluck-Pneumonie" and eight of lobular pneumonia, in which the origin by inhalation was not satisfactorily made out. Diplococcus pneumoniæ (Fraenkel-Weichselbaum) was found in twenty-three cases, and in fourteen of these a typical diplococcus pneumoniæ capsulatus was present. Streptococcus pyogenes was observed in three cases, staphylococcus pyogenes aureus in four, micrococcus pneumoniæ in three, bacillus pneumoniæ in two, bacterium coli in seven, and sarcina in one. Broncho-pneumonia, and especially "Schluck-Pneumonie," are due to the diplococcus pneumoniæ, but the bacterium coli may also give rise to lobular pneumonia in man. After the inhalation of the septic matter the diplococcus sets up pneumonia and the bacteria penetrating with the diplococcus into the bronchial ramifications, but not into the pulmonary tissue, produce toxines by the continuous irritation of which the exudative inflammation is changed into induration.

Infectious Diseases in Vienna during 1870–1894.

The Vienna Sanitary Commission has just published a report giving particulars as to the infectious diseases which occurred during the period from 1870 to 1894. It distinguishes between Vienna as it existed up to 1891 and Great Vienna, which comprises nineteen districts. Although between 1870 and 1894 the total mortality in Old Vienna fell from 21,384 (or 3·46 per cent.) to 17,232 (or 2·04 per cent.), the deaths from infectious diseases rose from 1359 in 1870 to 1600 in 1894, but fell from 32,217 to 31,461 cases in Great Vienna. There were 295 deaths from small-pox in 1870, against 16 in 1894; but the number of fatal cases of measles rose from 93 to 425 during the same time, and there were 431 deaths from scarlet fever, against 117 in 1870. During these twenty-five years 14,000 persons died from diphtheria, the fatal cases increasing from 126 in 1870 to 843 in 1894. The deaths from whooping-cough were 112 in 1870 and only 24 in 1894. Enteric fever caused 594 deaths in 1870, 1149 in 1871, and only 74 in 1894.

March 15th.

RUSSIA.

(FROM OUR OWN CORRESPONDENT.)

The New Medical College for Women.

THE Women's Medical Institute, the new Russian college for granting medical diplomas to women, has succeeded, after some difficulty and delay, in finding a home. A plot of ground of sufficient size has been obtained, belonging to, and immediately adjoining, the Petropavlovski (or Peter and Paul) Hospital—one of the largest municipal hospitals for the poorer labouring classes in St. Petersburg. The plans and drawings of the new institute are already completed. The building operations will begin next month, and it is hoped that they may be finished in time to open the new institution in August of next year. It has been liberally subsidised by Government and by the municipality of St. Petersburg, and private subscriptions and donations have been neither few nor small. At present the whole capital amounts to about 600,000 roubles (nearly £64,000). But of this at least 450,000 or 475,000 roubles will be required for building and furnishing the institute. It has consequently been found impossible at present to provide residence for the students within its walls, as had been originally intended. Donations and legacies are, however, still coming in, and it is probably only a question of time for sufficient funds to be in hand to make up this deficiency. Already the institute has had one valuable legacy in kind. The late Professor Tchudnofski, whose recent death has created a vacancy in the chair of General Therapeutics in the Army Medical Academy, has left to the Women's Medical Institute his entire medical library, containing over 4000 volumes. The number of students who will be admitted to the courses at first has been fixed at 125. Already over 100 applications have been received.

Increase of Leprosy in Livonia.

Whether the increased prevalence of leprosy in recent yea in the Baltic provinces of Russia be real or only apparei there is no question that they form one of the mo important centres of the disease in Europe. Of the three-Livonia, Esthonia, and Courland—the first is the mo severely affected, and here apparently the increase in tl last ten years has been serious. When Dr. Hellat wa collecting materials for his Doctor's thesis in 1885 and 18 he found only twenty-four lepers in the town of Riga, an 217 in the whole province of Liffland (as the Russians ca Livonia). At the present time it is stated that more tha 100 persons suffering from leprosy are known in the town Riga alone, and more than 500 in the rest of the gover ment—that is to say, some 600 in all. This spread of th disease is ascribed to the absence or insufficiency of isolatio There are several societies in existence whose object is t deal with leprosy and its victims. In Courland, where the are comparatively few cases, there are three such societie In Livonia and Esthonia there is only one, but it ha many branches. This last society has one *leprosoriu* with twenty beds in Mouli, and one with eighty bed in Nennal. It is also building a third, to be opene in August next, with sixty beds, near to Venden, an a fourth will probably be constructed next year by th *landtag* of the Esthonian nobility. The town of Rig possesses a large establishment of the sort, sufficient fo its own wants. The need of increased accommodation in th rest of the province is shown by the fact that on Jan. 1st 1895, there were means for isolating only 91 leprous patients i the two provinces of Livonia and Esthonia. The cost o maintaining the *leprosoria* in both amounted last year t 12,646 roubles (about £1300) of which sum 3475 roubles wer contributed by the patients.

A Dangerous Custom.

The death-rate in Russian villages is quite high enough from what are called natural causes, but it is largely in creased by the folly and superstition of the peasants them selves. It would be interesting, for example, to know th number of deaths occurring every winter among the peasant who, for religious reasons, bathe in the rivers on the feast o the Epiphany. The custom was formerly much more genera than it is now. Common sense has done away with it in a large number of districts, but in many remote villages o towns it is still the custom for the peasantry of both sexes immediately after the "blessing of the waters" by the pries on Jan. 6th (18th), to strip and plunge into the stream o river, under the belief that the water has acquired the powe of washing away their sins. A description was recently pub lished of such a scene in the town of Sviaga on the Volga From ten until one o'clock there was an endless succession o bathers of all ages, some even bringing children as young a seven and dipping them into the river through the broke ice. They all undressed and dressed on the banks, or on th ice in the centre of the river, where some enthusiasts bored hole through the ice and plunged in, with the additional ris of being carried away by the current. With the spread c enlightenment this custom is disappearing. It has for man years been forbidden in St. Petersburg, where the blessing c the Neva is made into a very impressive ceremony, at whic the Tsar and the court are invariably present.

Disappearance of Cholera.

Since Feb. 12th (24th) the whole Russian Empire has be declared to be free from cholera.

CONSTANTINOPLE.

(FROM OUR OWN CORRESPONDENT.)

Quarantine.

A COMMUNICATION from the General Board of Heal says:—"The term of quarantine imposed on arrivals fr Egypt was lately reduced to two days, but as the offici reports from that country state that the cholera epidem which had apparently died out in Alexandria, has burst c with renewed violence there, seventeen cases having be registered in the course of last week, the General Board Health has thought it advisable to take stricter preca tionary measures. Accordingly, vessels from Alexandi will, beginning on Feb. 26th, be subjected to a quarant of five full days, to be undergone in one of the lazaret

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of the empire. Vessels coming from other Egyptian ports on the Mediterranean littoral will, as heretofore, have to undergo a quarantine of only forty-eight hours. The quarantine of five days to which vessels from the Red Sea littoral of Egypt were hitherto subjected at the lazaretto of Ebou Sououd has been increased to ten days owing to the approach of pilgrimage, and such vessels must conform to the quarantine regulations applied at Tor. Vessels without passengers from the Mediterranean and Red Sea littorals of Egypt, excepting Alexandria, will be only subjected to medical inspection."

British Mortality at Constantinople.

The *Levant Herald* publishes the following interesting figures concerning the mortality amongst the British seamen and residents of Constantinople. The figures are taken from the Consular Register and are these: In 1893 the deaths registered are 22 residents and 12 seamen; in 1894, 11 residents and 3 seamen; in 1895, 21 residents and 20 seamen; the deaths for the present year being those of two residents and four seamen.

The Imperial Society of Medicine.

At an extraordinary meeting of the above society held a few weeks ago Dr. Kambouroglon was unanimously elected president for the present year. Dr. Kambouroglon is a surgeon of wide reputation throughout the whole country, and his election has been welcomed by all his *confrères*. He is the chief surgeon of the German Hospital at Constantinople, and no one can deny that he is a most skilful and able operator.

Influenza.

The epidemic has once again paid us its annual visit. Fortunately, however, cases of influenza this year are not at all of a serious character. The spread of the epidemic is announced from a good many parts of the country with very little fatality—in fact, the general public have got so used to its name and even to the symptoms that the disease often passes away unnoticed.

A New Serum.

A Salonica medical man, says a Turkish paper, has been for some time preparing a new anti-diphtheritic serum, samples of which lately reached the Imperial School of Medicine with request to examine the antitoxin and pronounce upon its merits. The institution did examine the new medicine, but declined to express an opinion until Dr. Rifat, the inventor, had given some further particulars about the component elements and the mode of preparing it. The authorities of Salonica will now request Dr. Rifat to prepare the medicine before a special commission composed of military physicians. This is not the first time that the lay press has raised a noise round a "new medicine"; but as the Imperial School has taken notice of the new serum I am anxious to hear the report of the commission.

Cholera in Asia Minor.

It is stated here that the medical men sent to report on the character of the epidemic which broke out lately at Saardes and in some villages of the Cazas of Sassoun and Garzan have decided that they have cholera to deal with. Fortunately the disease is not spreading, and only a very small percentage of the cases have ended fatally.

March 12th.

Obituary.

PROFESSOR SAPPEY.

PROFESSOR MARIE PHILIBERT CONSTANT S. SAPPEY, who recently died at Paris at the age of eighty-six years, was born at Bourg-en-Bresse, studied in Paris, and took his Doctorate in 1843. He was then prosector in charge of the dissecting-room; in 1860 he gave anatomical lectures and demonstrations and taught operative surgery, and in 1868 was appointed Professor of Anatomy in succession to Jarjavay. In 1862 he became a member of the Academy of Medicine. His treatise on Descriptive Anatomy, which was begun in 1847, was finished in 1863, and is one of the best works in any language, for every description therein is lucid, clear, and accurate. A second edition occupied his attention from 1867 to 1874, and this will always be considered an anatomical classic. He wrote treatises on the respiratory apparatus of birds and on the urethra of man, but he will go down to posterity as the greatest authority on the lymphatics of the human body, as well as of vertebrates and of fishes, that has lived since the days of Mascagni. His methods of dissection and his illustrations, considering that they are macroscopic and not microscopic, are almost ideally perfect.

ANTHONY MARCUS BEAUFORT BRABAZON,

CHEVALIER OF THE HOLY ROMAN EMPIRE, M.D. KING'S COLL. ABERD., L.R.C.S. IREL., L.S.A. LOND.

MUCH regret is felt in Bath at the death of Dr. A. M. B. Brabazon, who died on March 13th, after a month's illness, at the age of seventy-five. Dr. Brabazon was born at Clonard, county Meath, in 1821, his father being Rector of Painstown and his mother a daughter of the Rev. R. Heyland, rector of Coleraine. In 1849 he married Eleanor, daughter of Walter Bourne, Clerk of the Crown for the County of Antrim and niece of Richard Carmichael, the eminent surgeon. Having been educated at Holywell School, Delgany, and at Oakhill, Isle of Man, he proceeded to Trinity College and the Richmond Hospital, Dublin. He graduated M.D. King's Coll. Aberd. in 1856, and took the L.R.C.S.Irel. in 1846 and the L.S.A. Lond. in 1856. After a highly successful career at Dublin as student, demonstrator of anatomy at Trinity College, and lecturer on anatomy and physiology at the Carmichael School of Medicine, he went out to the Crimea and served as civil surgeon to the Scutari Hospital. Dr. Brabazon had been thirty-five years in Bath, having succeeded to the practice of the late Dr. Kilvert, and, in addition to being one of the oldest practitioners in Bath, had been medical officer of health in that city since 1876. In 1875 he was elected physician to the Bath Mineral Water Hospital, a post he retained until death, but the appointment of physician to the Bath Western Dispensary he resigned a few years ago. Dr. Brabazon was a past president of the Bath and Bristol branch of the British Medical Association, and despite his age was actively engaged in practice until the commencement of his illness. Dr. Brabazon belonged to the Irish family of which the Earl of Meath is the head, and was of a genial and cheery nature, and most zealous and painstaking in the discharge of his public duties. He was essentially a scholar and a gentleman, and was highly esteemed and respected by all the citizens of Bath. His public life did not comprise his professional attainments only; he was a musician, and for many years, while honorary physician to the Mineral Water Hospital, he entertained the patients with an annual concert. He also was interested in ecclesiastical matters, having been for five years sidesman, and for the last eighteen years churchwarden, in St. Mary's, Bathwick. His loss is felt not only by his widow, children (of whom seven survive), and partner, but by almost every individual in all spheres of life.

WILLIAM ROBERT ANDREW McALISTER, M.D. R.U.I.

WE regret to have to chronicle the death of Dr. W. R. A. McAlister, which occurred at his residence, Carrickfergus, on March 6th. Although in poor health for some time, it was thought he was improving until, on Wednesday, March 4th, he was seized with a cerebral attack, due to a clot, followed by unconsciousness, from which he gradually sank. Dr. McAlister, who was only thirty-nine years of age, was born at Annsboro' House, Lurgan, on Aug. 26th, 1857. He studied at Queen's College, Liverpool, and at Queen's College, Belfast, where he had a successful career and graduated M.D., M.Ch. of the Royal University of Ireland in 1883 and M.A.O. in 1885. In 1884 he began practice in Carrickfergus, where, by his skill as a physician and by his great kindness and geniality, he rapidly built up a large practice. He also took a keen interest in public affairs in Carrickfergus, where he was a member of the Municipal and Harbours Boards and was chairman of the Sanitary Committee. He was a grand juror for the county of the town and rector's churchwarden of the parish church of St. Nicholas. Dr. McAlister held a number of appointments in Carrickfergus. He was medical officer in charge of the Antrim Artillery and troops, Admiralty surgeon, and medical attendant to Shiel's Charitable Institution. He took a keen interest in the Masonic body, and his loss is deeply deplored by the members of that order, especially as he was one of the principal promoters of a scheme for the erection of a new

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Masonic hall in Carrickfergus, and chairman of the building committee of the contemplated new premises. He also took a great interest in social matters, and was an officer of the Carrickfergus Sailing Club and a warm supporter of the rowing club. For some time past he had been suffering from valvular disease of the heart. Dr. McAlister was one of the most social, kindly, and genial of men, and his death is regretted alike by his patients, the public, and by his professional brethren, with whom he was a great favourite. He leaves two children, his wife having died a few years ago. He was buried on March 9th in the family burying-ground, Donachney, Lurgan.

PETER SWALES, M.R.C.S. ENG., L.S.A.

THE numerous friends and acquaintances of this gentleman have learned with the deepest regret of his death, which occurred unexpectedly at his residence in Sheerness, on the 26th ult., of heart-failure, following an attack of dyspnœa after a violent paroxysm of coughing. Mr. Swales, who was fifty-seven years of age, held several public appointments, being the local medical inspector under the Factory Act, medical officer and public vaccinator to the Sheppey Union for the parishes of Sheerness and Queenborough; he was also medical officer of health for the borough of Queenborough, and surgeon to the coastguard stationed in Sheerness and the Isle of Sheppey, and was for many years medical officer to the port sanitary authority. In every walk of life Mr. Swales was most retiring and unobtrusive, but he displayed great business capacity and showed the utmost consideration for the views and feelings of others. The locality has lost a faithful townsman and the parish a most conscientious and painstaking officer. He was greatly respected, especially by the poor and the older portion of the inhabitants. The deceased gentleman's genial presence will be long missed and deeply mourned. He leaves a widow and four children, for whom we are sure the greatest sympathy will be felt in their bereavement.

EDWARD OWEN GIBLIN, M.D., C.M. ABERD., M.R.C.S. ENG.

A VERY successful career has been abruptly closed by the sudden death of Dr. Giblin of Hobart, Tasmania. He was the son of a former manager of the Bank of Van Diemen's Land, and was born in the colony, at Claremont, New Town, on Nov. 23rd, 1849. Having resolved to follow the medical profession, he commenced study at a colonial hospital and afterwards proceeded to London, where he joined Guy's Hospital and gained the second entrance prize. Subsequent events justified this praiseworthy commencement, for he was not only a diligent and successful student, but his talents and capacity showed themselves in the work done by him in connexion with the *Guy's Hospital Gazette*. He was, in fact, one of the original founders of this journal, so well known to successive generations of London medical students, and a good portrait of him appears in its last number. In 1874 he became a Member of the Royal College of Surgeons of England, and in 1876 he graduated as M.B. and C.M. at Aberdeen University, taking the M.D. in 1878. He returned to Tasmania in 1877 and settled in Hobart, where he spent the remainder of his life, his practice becoming in course of time one of the most extensive and desirable in the city. He was thoroughly devoted to the service of his fellow citizens, not only in the mitigation of suffering, but in the promotion of the general welfare by an active participation in public life. In addition to his medical appointments, such as member of the Hospital Board, honorary surgeon to the General Hospital and health officer of the city, he filled several important public offices. For one session of Parliament he had a seat in the Colonial House of Assembly as representative of South Hobart, and created a favourable impression both by the style of his speeches and by his knowledge of administrative work; indeed, politics had so much attraction for him that he had consented to become a candidate for a seat in the Legislative Council whenever a favourable opportunity presented itself. He was also a member of the Council of the University, a director of the Australian Mutual Provident Society, and a member of the urban drainage board and the central board of health. Dr. Giblin held a prominent position as a Freemason; he was appointed Deputy Grand Master at the formation of the Grand Lodge in Tasmania, and at the time of his death he had filled the office of Grand Master for some years. He took a deep interest in the scheme for securing a thorough system of colonial defence, attained some celebrity as a proficient in rifle-shooting, and was surgeon-major in the Tasmanian Rifle Association. His last hours were spent in this congenial work, for while attending the association's annual shooting-matches he fell a victim to sunstroke, and died at Launceston on Dec. 27th, 1895, after a few hours' illness. The funeral was conducted with full Masonic and military honours, and was attended by all the leading members of colonial society. Dr. Giblin leaves a widow and family. His sudden and untimely death is deeply lamented by many acquaintances and friends.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.—The deaths of the following eminent medical men are announced: Dr. Comegys, formerly Professor of Clinical Medicine in the Ohio Medical College, Cincinnatti.—Dr. Joseph Jones, Professor of Clinical Medicine in the Tulane University, New Orleans.—Dr. Chudnovski, Professor of Medical Diagnosis in the Military Medico-Chirurgical Academy, St. Petersburg.—Dr. J. Howard Ripley, Professor of Children's Diseases in the Post-graduate School, New York.—Dr. F. Vulliet, Professor of Midwifery and Gynæcology in the Geneva Policlinic.—Dr. E. Giovanardi, Professor of Anatomy in the Modena Medical School.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentleman, having passed the necessary examinations and having conformed to the by-laws and regulations, was at the ordinary meeting of the Council on the 12th inst. admitted a Fellow of the College:—

Edgcombe, Wilfrid, M.B. Lond., L.R.C.P. Lond., University College and Royal Infirmary, Liverpool; membership dated Feb. 9th, 1893.

The following gentleman was at the same meeting admitted a Member of the College:—

Christopherson, John Brian, Cambridge University and St. Bartholomew's Hospital.

FOREIGN UNIVERSITY INTELLIGENCE.—*Amsterdam:* Dr. H. Treub of Leyden has been appointed Professor of Midwifery and Gynæcology in succession to Dr. G. H. van der Meij, deceased.—*Strassburg:* Professor Baumann of Freiburg, who had been invited to accept Professor Hoppe-Seyler's chair, has decided to remain where he is.—*Utrecht:* Dr. Narath of Vienna has been appointed Professor of Surgery in succession to Dr. von Eiselsberg.—*Kazan:* Dr. Agababoff has taken the place of the late Dr. Tepliashchin as *privat-docent* in Ophthalmology.

THE DENTAL HOSPITAL OF LONDON.—The thirty-eighth annual meeting of this institution was held at the hospital on March 12th, Mr. F. A. Bevan, one of the trustees, being in the chair. In the report, which was unanimously adopted, the committee of management congratulated the governors on the sustained prosperity and usefulness of the charity. During the year 1895, 59,819 cases had been treated among the suffering poor, being 1320 in excess of the number in the previous year and 40,564 more than those seen in 1874, when the hospital was removed from Soho-square to its present site. Owing to this large number of cases the present hospital buildings are found utterly inadequate, the rooms being very small and insanitary and lighted from one side only, and the committee are therefore making strenuous efforts to raise sufficient money to build on an adjacent site a new hospital, which shall be fitted up with every accommodation and appliance on the latest principles. There are few persons who have not at some time in their lives suffered the torture of toothache, and those who devote their time and energies to the science of dentistry, whereby they are enabled to mitigate this torture, are deserving of every sympathy and help. Any readers who feel this sympathy and are desirous of assisting in the rebuilding of the Dental Hospital of London should send a donation or subscription to the bankers, Messrs. Ransom, Bouverie, and Co., 1, Pall-mall East, S.W.; the treasurer, Mr. Joseph Walker, M.D.; or to the secretary, Mr. J. F. Pink, at the Hospital, Leicester-square, London, W.C., from whom all information can be obtained. Help by an increase in annual subscriptions is very earnestly solicited.

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HULL ROYAL INFIRMARY.—At the Hull Royal Infirmary 2480 in-patients were admitted last year, the average number of beds occupied being 141·9, and the average duration of each patient's residence being 20·8 days; the total average cost of each in-patient (inclusive of repairs to building, furniture, &c.) was £2 12*s.*, and the average cost of each patient per week (inclusive of repairs as above) was 17*s.* 9½*d.* The receipts from all sources amounted to £7803. The munificent gift of £1000 was received from Sir James Reckitt, Bart. The knighthood conferred on the senior surgeon of the infirmary has been a source of much satisfaction to his numerous friends, and the Board of Management passed a unanimous resolution eulogising Sir Robert Martin Craven's services to the infirmary, and congratulating him on the distinction he has received.

PRUDENTIAL ASSURANCE COMPANY, LIMITED.—The astounding progress of this company is shown by the following figures copied from the summary of the report issued March 5th, 1896. On the Ordinary Branch 61,450 policies were issued in the year 1895. The premiums were £2,304,013 for the same period. The claims of the year amounted to £1,797,688. The number of deaths was 196,507, and 1418 endowment assurances matured. The total number of policies in force at the end of the year was 11,682,748; their average duration is nearly seven and three-quarter years. The assets of the company, in both branches, as shown in the balance-sheet, are £23,915,890, being an increase of £2,702,085 over those of 1894. These figures need no comment. We can only wish the company a continuation of success.

CARDIFF MEDICAL SOCIETY.—The usual monthly meeting was held on March 6th, Dr. Edgar Jones, President, being in the chair.—Dr. Paterson showed (1) a case of Duchenne's Paralysis, and (2) Adherent Pericardium.—Mr. J. Lynn Thomas showed a man with a Hunterian Chancre in the mid-line of the tongue, one inch from the tip.—Dr. Rhys Griffiths showed a specimen of Perforation of a Gastric Ulcer in which laparotomy was done but the perforation could not be found at the time.—Dr. Cook read a paper on Intussusception, with two illustrative cases.—Dr. A. Sheen read a paper on the Recent Outbreak of Small-pox at the Union. The epidemic amongst the inmates was most instructive in showing the beneficial and protective influence of vaccination and revaccination against the disease. The four deaths were in patients who had not been vaccinated, while the attacks on those who had been revaccinated were of a very mild nature.

THE CHALFONT EPILEPTIC COLONY OF THE NATIONAL SOCIETY FOR EMPLOYMENT OF EPILEPTICS.—The annual meeting of governors was held at the offices, 12, Buckingham-street, London, W.C., on Monday, March 9th, the chair being taken by Mr. E. Montefiore Micholls. In the report presented by the honorary medical staff it is stated that "the experience of the past twelve months has entirely justified the sanguine expectations expressed in the report of last year, that the epileptic colony has now successfully passed the experimental stage, and the provision of suitable employment as a form of remedial treatment has been attended with the happiest results." The executive committee, in their report, plead for the numerous and daily increasing body of disappointed applicants whose hopes of entering the colony can never be realised until funds are provided for increasing the accommodation, which is at present totally inadequate to the demand. The chairman remarked that cases were admitted impartially to the colony, so far as there was room for them, from all parts of Great Britain, but the support given to the society came mainly from London. The committee hoped that residents in provincial towns willing to coöperate would communicate with the secretary in order that measures might be taken for arousing interest in the movement in every town and village throughout the country. The useful work done by this society has been repeatedly referred to in the columns of THE LANCET. The farm secured for the colony is large enough to accommodate several hundred additional colonists. All that is required is sufficient money to erect the necessary homes, workshops, &c. Outside the medical profession the successful working and public utility of the colony seems to be little known, and we are glad to see that a little more energy than heretofore is about to be displayed by the committee in bringing the claims of the society under the notice of the charitable public throughout the country.

A REFORMATORY FOR JUVENILE OFFENDERS IN EGYPT.—The improvement in the administration of Egyptian prisons which has been effected during the British occupation has now been carried a stage further by the establishment of a reformatory for boys at Alexandria. The institution was opened in February and provides accommodation for about 150 boys, who will be engaged in gardening and farm work. The details of the scheme have been matured and carried out by his Excellency Crookshank Pasha, and its successful inauguration augments the long list of services whereby he has earned the gratitude of all well-wishers to Egypt. An annual Government grant of £E1500 is appropriated to the reformatory, and private generosity will be relied on to provide any additional funds required.

ROYAL INSTITUTION. — The following are the lecture arrangements after Easter:—Professor James Sully, of University College, London, three lectures on Child-study and Education; Mr. C. Vernon Boys, three lectures on Ripples in Air and on Water; Professor T. G. Bonney, two lectures on the Building and Sculpture of Western Europe (the Tyndall Lectures); Professor Dewar, three lectures on Recent Chemical Progress; Mr. W. Gowland, three lectures on the Art of Working Metals in Japan; Dr. Robert Munro, two lectures on Lake Dwellings; Professor W. B. Richmond, R.A., three lectures on the Vault of the Sixtine Chapel; Mr. F. Corder, Curator of the Royal Academy of Music, three lectures on Three Emotional Composers—Berlioz, Wagner, Liszt (with musical illustrations); Mr. E. A. Wallis Budge of the British Museum, two lectures on the Moral and Religious Literature of Ancient Egypt. The Friday evening meetings will be resumed on April 17th, when a discourse will be given by M. G. Lippmann, on Colour Photography; succeeding discourses will probably be given by Professor G. V. Poore, Colonel H. Watkin, C.B., Professor Silvanus P. Thompson, Professor J. A. Ewing, Professor J. A. Fleming, and other gentlemen.

SOUTH-WEST LONDON MEDICAL SOCIETY.—A meeting of this society was held at Stanley's, Lavender Hill, S.W., on the 11th inst., Dr. Gilbert Richardson in the chair. Mr. M. G. Biggs read a paper on Puerperal Fever (so-called) with Cases, in the course of which he contended that there is no puerperal fever, but always sepsis due to entrance of streptococcus pyogenes into the blood, through some wound in genital passages. That such cases are analogous to surgical cases and always form three groups: (*a*) septic intoxication, (*b*) septicæmia, (*c*) pyæmia. They are, therefore, not strictly infectious, only innoculable, and the disease cannot be carried from case to case by clothes. A puerperal woman differs from an ordinary surgical case in the condition of the blood and during the after period in the large amount of waste material, which has to be got rid of by excretory channels and may form a nidus for growth of cocci and in the impossibility of being certain that the wound is left aseptic and that it heals, not by first intention, but by granulation. The treatment is summed up in prevention—strict asepsis. If no entrance of streptococci be allowed no septic mischief will follow. A discussion followed in which Mr. B. Duke, Dr. Orr, Dr. Roe, Mr. J. Brown, Mr. Dickinson, and others took part, and the meeting concluded with the usual vote of thanks.

BRISTOL MEDICO-CHIRURGICAL SOCIETY. — The sixth meeting of the session was held on March 11th in the medical library of University College. Present: Mr. A. W. Prichard, in the chair, and fifty members and visitors. Dr. F. H. Edgeworth showed a patient with Neuritis of the Median Nerve due to rapid vibrations of a boot machine; also an Ataxic patient with Exaggerated Knee-jerks. Dr. Williams, Mr. Morton, and Dr. Waldo remarked on the first patient, and Dr. M. Clarke on the second patient. Dr. B. Rogers showed an Anencephalous Monster.—Dr. Brcom and Dr. J. G. Swayne made some remarks on the specimen. Dr. T. Fisher showed a specimen of Hæmorrhagic Pancreatitis and a specimen of Thrombosis of the Superior Vena Cava. Dr. Shingleton Smith made some remarks.—Mr. A. W. Prichard showed a specimen of Bullet Wound of the Pregnant Uterus, and Dr. J. G. Swayne remarked on the position of the child in the uterus.—Dr. B. Rogers exhibited Soxhlet's Milk Steriliser, and Dr. Shingleton Smith and Dr. J. Swain commented on the apparatus.—Mr. C. W. J. Brasher read a paper on Hypertrophy of the Prostate treated by Ligature and

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Division of the Vasa Deferentia, and Dr. J. Swain, Mr. Morton, and Mr. Barclay made some remarks on the subject. —Mr. Morton read a paper on Supra-vaginal Amputation of the Cervix for Carcinoma during Pregnancy, and Dr. Greig Smith commented on the operation.

CHURCH SANITARY ASSOCIATION.—The Bishop of Rochester has become a Vice-President of the Church Sanitary Association. Under the auspices of the National Health Society and the Church Sanitary Association a course of instruction in hygiene suitable to help the clergy in their own lives and in their church, parish, and school work is to be given by Dr. Schofield in the Chapter House, St. Paul's Churchyard, London. At the inaugural meeting which is to be held at Sion College on the 26th inst. the Rev. J. W. Pratt, President of the College, in the chair, addresses will be given by the Archdeacon of London, the Rev. C. J. Ridgeway, and Dr. Norman Kerr.

MEDICAL MAGISTRATES.—Dr. Robert Dundas Helm has been placed on the Commission of the Peace for Carlisle. The following gentlemen have been appointed magistrates for the county of Glamorgan—namely, Dr. Maurice Griffith Evans of Caerphilly; Mr. Robert Charles Hunter, L.R.C.P. Edin., M.R.C.S., of Pontypridd; Dr. William Hopkin Thomas, of Bron-y-Garn, Maesteg; Mr. Thomas Jones, L.R.C.P. Edin., M.R.C.S., of Glandderw, Aberkenfig, Bridgend; Mr. Edward Treharne, L.R.C.P., L.R.C.S. Edin., of Cadoxton, Barry, Cardiff; Dr. Frederick William Evans, of Charles-street, Cardiff; Dr. John Hopkyn Davies, of Tir-Caradoc, Port Talbot; and Mr. Daniel Thomas Edwards. M.R.C.S., of Glan-y-llyn, Taff's Well, Cardiff.— Mr. George B. S. Darter, M.B., B.S. Durh., has been appointed a Justice of the Peace for the district of Victoria West, Cape of Good Hope.

THE DIFFUSION OF SMALL-POX.—There seems to be little doubt of the fact that small-pox is spreading in the western and south-western counties of England and in South Wales. At present the amount of disease is nowhere very large, except in the city of Gloucester, where the figures have shown a very serious condition of affairs during the past few weeks. In London, the admissions of fresh cases last week to the hospital ships in Long Reach did not number half a dozen, and Saturday, March 14th, found only 42 patients under treatment, as compared with 58, 51, and 52 on the preceding three Saturdays. At Gloucester, there were notified last week 138 cases, 20 deaths were registered, and there was only 1 discharged from hospital. In the two weeks ended on Saturday last the new cases were upwards of 200 and the deaths 40 in number, and we read of the town hospital, designed for sixteen beds, having during the present epidemic had twenty-five children sleeping in one ward, and as many as 85 small-pox patients in the four wards. Not only so, but beds are stated to have been utilised for two and three children each. If these statements be matter of fact, they represent, as we have said, a very serious condition of affairs, and, apart altogether from the influence which such overcrowding of hospital wards must exert on the suffering inmates, gives cause for anxiety as to the spread of the disease in the vicinity of the hospital. On the facts before them, the Gloucester magistrates on Saturday last decided to hold the next County Sessions at Cheltenham. At the moment of writing we notice that the spread of small-pox from Gloucester has given rise to a proposed question in the House of Commons, Mr. Radcliffe Cooke, the member for Hereford, seeking to elicit the facts as to the amount and fatality of the disease in the city itself and as to the dissemination of small-pox along the line of railway communication with Stroud, Nailsworth, Frocester, and Dursley. Mr. Cooke is also seeking to ascertain whether disinfection of railway carriages running out of Gloucester is practised. In the city the anti-vaccination party is still working strongly to try to check vaccination and re-vaccination, and on the measure of success attending the campaign will doubtless largely depend the growth or curtailment of the present epidemic in Gloucester. Many of the schools have been closed on account of the large number of children affected. No fresh case occurred last week in Cardiff workhouse. Three fresh attacks were isolated at Swansea, and a female servant was reported as ill of small-pox at Dowlais. At Bridgend a case last week ended fatally. At Yorkley, near Lydney, in the Forest of Dean, a girl coming from Gloucester was recently attacked by small-pox. The house was placed in quarantine, and the patient removed back to Gloucester in a closed carriage. The collier population around Yorkley have been much perturbed at the incident, especially as a boy from the infected house was in attendance at the Pillowell board school.

SUPERANNUATION ALLOWANCE.—Dr. John W. Griffith, upon retiring from the post of medical officer to the Clerkenwell Vestry, has been granted a superannuation allowance of £133 6*s.* 8*d.*

FOOTBALL CASUALTIES.—During a match at Reading, on the 11th inst., between the Reading Rugby Club and Corpus Christi College, Oxford, a player of the latter team sustained a fracture of his clavicle.—On the 14th inst., a youth aged sixteen years, while playing in a match on the Whinhill, Greenock, fractured his clavicle and was conveyed to the infirmary.

ROYAL METEOROLOGICAL SOCIETY.—At the meeting of this society on Wednesday evening, the 18th inst., Mr. E. Mawley, President, in the chair, Mr. Frederic Gaster, F.R.M.S., of the Meteorological Office, delivered a lecture on "Weather Forecasts and Storm Warnings: how they are Prepared and Made Known," which was illustrated by numerous instruments, diagrams, and lantern slides. Mr. Gaster, in explaining how the information is made known to the public by the Meteorological Office, drew attention to the marked improvement which had occurred in these warnings in recent years and to some of the occurrences which from time to time caused failures.

THE fifty-third annual report of the Mutual Life Insurance Company of New York states that the funds now amount to £45,276,564, being an increase of £3,386,355 during the year. The interest earned on the mean funds has been at the rate of £4 19*s.* 6*d.* per cent. per annum, excluding an increase in the value of investments to the extent of £270,263. The premiums received are £7,505,378, being an increase of £396,962. The new premiums amount to £2,083,783. The new policies issued and paid for in 1895 were 56,059, insuring £30,296,934. This excludes all policies issued in 1895 that were not paid for in the account of that year. The total policies in force are 314,024 insuring £184,614,878, and it is alleged that the surplus over all liabilities now exceeds five and a half millions sterling, having increased by more than one million during the past year.

THE ROYAL SURREY COUNTY HOSPITAL.—At the annual court of governors of the Royal Surrey County Hospital, Guildford, the most important resolution from a medical point of view was the unanimous decision to exclude cases of delirium tremens. The matter was brought forward by a gentleman whose experience as chaplain in the past had impressed upon his mind the unsuitability of the wards for such noisy patients. The erection of the new building for the nurses and staff has been delayed by drainage works, and it is proposed, too, to make it an entirely separate building instead of an annexe, as previously arranged. The year's income (£4944) exceeded the expenditure (£4562), but the committee reported a falling off in both Hospital Saturday and church collections. Mr. R. C. Garton, of Worplesdon Manor, whose generous gift of £500 to the building fund was referred to by the committee, is, we believe, the gentleman whose opposition to the Whitmoor-common small-pox hospital led to litigation.

NEW POOR-LAW HOSPITAL AND NURSES' HOME AT PORTSMOUTH.—Supplemental buildings for the accommodation of the sick and imbecile paupers have long been found necessary by the Portsea Island board of guardians, and on Wednesday last week the foundation stones of a new hospital and nurses' home were laid with a little ceremony by the chairman of the board, Mr. F. E. French. The hospital buildings are to the south of the present infirmary, and the two new pavilions will occupy an additional four acres. The old and new premises will be connected and the administrative buildings will be in the middle together with the nurses' home. This will comprise a medical officer's, matron's, and nurses' dining-rooms on the lower floors, with offices and the night attendants' room, connected by telephone with the wards; on the first floor will be the nurses' sitting-room and separate bedrooms; on the floor above the female servants' rooms. This building will, if necessary, be capable of extension. The male and female wards will run parallel to the east and west respectively of the administrative block

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they will be quite detached, two-storied, and capable of accommodating 120 patients each. The large wards will take twenty-four beds and give each patient 912 cubic feet of air-space; two smaller isolation wards on each floor will take three beds apiece with 1500 cubic feet of atmosphere. Balconies and fire-escapes will be added. The contract price for the whole is £19,300 and the cost per bed is put at about £100. The new administrative block will serve for both the old and new buildings. Last year, it may be stated, there were 1090 sick and 273 imbeciles distributed through the house. On the occasion alluded to above new machinery in the laundry, capable of washing for 2000 inmates, or 25,000 pieces per week, was set in motion.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

Plumbers' Registration Bill.

TOWARDS the close of the sitting of the House of Commons on Friday, March 13th, Mr. Lees Knowles made an attempt to get a second reading for the Plumbers' Registration Bill. He assured his fellow-members that the measure is entirely in the public interest, and reminded them of the great pains spent upon it by a Committee of the House, but objection was taken, and the 12 o'clock rule coming into operation the matter had to be postponed.

The Vaccination Commission Report.

Numerous petitions are still being presented to Parliament for the early presentation of the report of the Royal Commission on Vaccination, and it is to be hoped that there will not be much longer delay.

Alleged Increase of Insanity.

Mr. William Corbet, who has recently been interesting himself greatly in this subject, has given notice of a resolution to the effect that, in the interests of the general welfare, it is desirable that an International Commission be convoked to inquire into the matter. It is to be feared, however, that Mr. Corbet will find some difficulty in getting an opportunity for moving his resolution.

Boiler Accidents.

A short measure has been introduced into the House of Commons by Sir William Houldsworth which has for its object the prevention of accidents with boilers. The means it adopts is a system of inspection and registration.

The Scottish Public Health Bill.

There was a long second reading debate on this Bill in the House of Lords on Tuesday, March 17th, a debate in which many of the provisions of the Bill were severely criticised, although most were commended. Among the announcements made by Lord Balfour of Burleigh, the Secretary for Scotland, was one specially gratifying to the medical profession—namely, that the Government propose that in future no medical officer of health in Scotland shall be dismissed without the consent of the Local Government Board in Scotland. At the close of the debate the Bill was read a second time and referred to a Select Committee, and a consolidation Bill was introduced.

The London Water Question.

At the meeting of the House of Lords on Monday, March 16th, Lord James of Hereford introduced the Bill of the Government for dealing with the water-supply of London. He explained that the Government had framed the Bill upon the assumption that there exists a great and growing opinion that the time had come when the management of the water-supply of the metropolis and the surrounding districts should be vested in the hands of a responsible and a public representative body. They had come to the conclusion that they could not accept the London County Council as the body to control that supply, and they had determined to create a new representative body, elected by all the various areas affected in certain proportions. They proposed that the new body should consist of thirty members, and to give to the London County Council sixteen seats, to the Corporation of London two seats, to the county councils of Middlesex, Essex, and West Ham two seats each, to the county councils of Surrey, Kent, Hertford, and Croydon one seat each, and to the Thames Conservancy and the Lea Conservancy one seat each. It would be for this new trust, as soon as it came into existence, to meet and deliberate and do what it could to acquire the great interests the care of which would be placed in its hands, doing it, of course, subject to the sanction of Parliament. Parliament, his lordship went on to say, could not give it compulsory or rating powers until the powers it sought were known. When the new body said "Give us this power or that," it would be for those who were interested in relation to the exercise of those powers to be heard also, and for Parliament then to give its final judgment. With this object in view the Bill gave to the new body the power to enter on any negotiations, make any agreement they could, and take over the interests of the companies, and it purposely left this discretion and power in as general terms as possible in order that the new body might be unfettered in its action. As a preliminary matter, the Bill handed to the new body all the existing powers of control over the water companies now in the hands of the London County Council under the Metropolitan Acts.

HOUSE OF COMMONS.

THURSDAY, MARCH 12TH.

Hospital Accommodation at Malta.

Mr. Macartney, secretary to the Admiralty, said in reply to a question that it was decided in 1894 on general grounds that the sanitary arrangements of the hospital at Malta did not comply in all respects with modern requirements. Various works were being gradually carried out to meet this want, and they would be completed in the ensuing financial year. The increase in the number of cases for hospital treatment was due to the augmentation of the force on the island. It was desirable in the interests of the service as well as beneficial for the individuals to invalid promptly from Malta to England in order to facilitate speedy recovery and resumption of duty.

The Poplars Laboratory.

Mr. Samuel Smith asked the Secretary of State for the Home Department whether his attention had been called to the fact that admission had been refused to a committee of the Wembley Urban Council to a building called the Poplars in their district where a nuisance was believed to exist; whether the Poplars was used as a laboratory for experimenting on animals, and, if so, for what kind of experiments; whether in that case it was registered as required by the Act; and whether, as the local authority had been refused admission, he would see that it was properly inspected and controlled.—Sir Matthew White Ridley replied: The answer to the first paragraph of the question is in the affirmative. The Poplars is duly registered under the Act but hitherto it has been used exclusively for the production of antitoxin remedies and testing their efficacy. Whether the processes carried on there are experiments within the meaning of the Act is a difficult legal question which is engaging my consideration. The place has been visited by the inspector under the Act who on each occasion found the premises in good order and the animals well cared for. He also has instructions to visit and report to me upon the place from time to time. I am informed that in refusing admission to the Committee of the District Council the occupiers acted deliberately and under legal advice. This matter, however, does not appear to come within my jurisdiction under the Act and I will refer it to the Local Government Board.

The Case of Surgeon-Major Clarence Smith.

Replying to Sir H. Fowler, Lord George Hamilton said the offence for which Surgeon-Major Smith was required to retire from the service was more serious than would be gathered from the article alluded to in the *Standard* of March 10th, and there was on that point no difference of opinion whatever between the right hon. gentleman and himself. A commission had been appointed before he took office to inquire into the accuracy of the allegations made, and their report was only received a short time back. The delay that thus occurred in settling the case resulted in a postponement of the date of the retirement of the officer in question, which secured him, according to the existing regulations, certain advantages in respect of pension. It would be contrary to the practice both of the War Office and of the India Office to make public any papers affecting the conduct of an officer upon which the Secretary of State has passed orders, and he was not prepared to depart from the practice in this case.

Hospital Accommodation at Aldershot.

Mr. Brodrick, in reply to a question by Dr. Tanner, said that the subject of the hospital accommodation at Aldershot had been fully considered. In a few weeks 104 additional beds would be ready for occupation at the Cambridge Hospital. A hospital of 251 beds for the Marlborough lines was in course of erection. A hospital of forty-eight beds for infectious diseases—half for men, half for women and children—would be ready in the summer. A contract was about to be made for building a hospital of fifty beds for soldiers' wives and children. The plans of this hospital were completed. Half the accommodation would be for maternity cases.

FRIDAY, MARCH 19TH.

The Treatment of Lunatics.

In reply to questions by Mr. William Corbet, Sir Matthew White Ridley said; The terms of the Lunacy Bill are under consideration but there is no prospect of its being ready before Easter. It will not apply to Ireland. As regards the hon. member's second question I am not aware that mechanical restraint is always and in all circumstances objectionable or that the highest authorities have condemned anything but the excessive, unnecessary, and improper employment of such restraint. I am unable to give the hon. member the names of the asylums in which mechanical restraint is employed, but he will see, on referring to the last report of the Lunacy Commissioners, that in fifty out of the 155 institutions for the insane in this country mechanical restraint is never made use of and that in most of the other institutions the amount of restraint used is very small and the means generally employed are sleeved jackets or dresses and gloves. Since the death of Thomas Weir more stringent regulations in regard to the employment of mechanical restraint have been made by the Commissioners under the Act of 1890. These will be found printed as an appendix to their last report.

MONDAY, MARCH 16TH.

Mumps on Board the "Worcester."

Mr. Ritchie, in reply to Captain Norton, said that the Port Sanitary Authority of London have certain statutory powers as regards certain dangerous infectious diseases, but mumps is not one of these diseases. He was assured, on behalf of the managers of the *Worcester*, that the cadets on board are under careful medical supervision; that cases of mumps are at once isolated, and, if necessary, sent to the hospital ship; and that boys affected are not allowed to mix with the others in sweeping decks or in any other way.

The Water-supply of Barracks.

Mr. Brodrick informed Mr. Weir, who questioned him on the subject, that there are strict regulations for the analysis of water supplied to

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barracks whenever there was any reason to suppose it might be injurious to health. The water supplied to Parkhurst Barracks in the early part of 1894 was cut off in October of that year and good water laid on, and at Caterham the same measures were adopted.

The Army Medical Department.

When the House went into Committee of Supply on the Army Estimates, Mr. Brodrick, the Under Secretary of State for War, made a long statement with regard to the affairs of the army, and among other things dealt with the difficulty found in keeping up the strength of the Medical Department. The department, he said, is now short of its establishment by seventeen officers, and Lord Lansdowne had given very serious consideration to the causes which had led to a falling-off in candidates for this hitherto popular service. In considering the question Lord Lansdowne had had the advantage of receiving two deputations, which had laid the views of the service fully before him. The War Office had endeavoured to trace this falling-off to its true cause, and among the causes alleged to explain the apparent unpopularity of the service he might mention the following: (1) the social status of its members as compared with that of combatant officers; (2) the manner in which the entrance examinations are conducted and the examiners selected; (3) the arrangements for tours of foreign service; (4) the smallness of the opportunities offered for special study and original research as compared with those open to practitioners in civil life; (5) the increasing strictness of the entrance examination; (6) the prolongation of the curriculum of medical students to five years. It was evident that where so many explanations were suggested they could not arrive at the real causes of the falling off in candidates without careful study, and Lord Lansdowne could not give a hasty decision. But he fully recognised the importance of securing the full confidence of the profession, and they hoped to be able to deal with some, at all events, of the points which had been brought to their attention.

Sir Henry Campbell-Bannerman, Secretary of State for War in the late Administration, also referred to the subject in his speech. He said that unfortunately the influx of candidates could be largely controlled by the medical schools. If they were in a good humour there would be plenty of candidates, whereas if anything was done to offend them on particular points there would be a dearth of candidates. He hoped, however, that the Under Secretary and his colleagues would be able to get over the difficulty.

Dr. Farquharson put it to the House that there must be something rotten in the Army Medical Department. He complained that the social status of the army doctor had been very much lowered since the abolition of the old regimental system, and suggested that the Under Secretary might consider whether it would not be possible to have a partial return to that system.

WEDNESDAY, MARCH 18TH.

Poor-law Officers Superannuation Bill.

For three hours the House discussed this Bill, which proposes that, in return for a percentage contribution from their salary and emoluments, every Poor-law officer in England shall be entitled to a superannuation allowance when he becomes incapable of discharging the duties of his office by reason of permanent infirmity of mind or body or of old age. Mr. James Bailey, who moved the second reading of the Bill, cited a number of cases of extreme hardship. Mr. Logan, seconded by Mr. John Burns, moved the rejection of the measure on the ground that Parliament had no right to compel boards of guardians to pay pensions with money not provided by Parliament, but by the local rates. Sir Walter Foster spoke strongly in favour of the Bill arguing that it would tend to increase the efficiency of Poor-law administration, while Dr. Farquharson represented the special claims of medical officers to a reasonable provision for their old age. Speech after speech followed, all in favour of the Bill, and in the end Mr. Logan asked leave to withdraw his amendment. When the second reading had been passed it was decided to refer the Bill to one of the Grand Committees and that between now and the proceedings in the Committee consideration should be given to the question whether or not it was desirable to extend the scope of the measure to Scotland and Ireland.

IN COMMITTEE.

Food Products Adulteration.

Another meeting of the Committee was held on Wednesday, March 11th, Mr. T. W. Russell presiding.

Mr. T. J. Lloyd, consulting analyst to the British Dairy Farmers' Association, the Metropolitan Dairymen's Society, and other bodies, said that the conclusion he had come to as the result of considerable experience was that the average genuine milk in England, Scotland, and Ireland contained 12·6 per cent. of total solids and 3·6 per cent. of fat, and the proposal he had to make was that in the first instance, a standard of 12 per cent. and 3 per cent. respectively should be established. This standard was not so high as might be suggested, but they had to consider the practice of the Somerset House authorities and to bear in mind that in course of time the standard would probably be raised. In amending the Food and Drugs Act it would be desirable to get rid of the stumbling-block with regard to the term "genuine." At present the public analyst had to determine whether a sample of milk was genuine, and it was purely a matter of opinion. He thought all sellers of milk should be licensed in order that the premises and those who sold the article might be under some sort of inspection, and in particular he desired to see a strict inspection of itinerant purveyors, who were responsible for a great deal of adulteration. He found that there was a very large quantity of milk sold which contained artificial colouring matter. The colour of the milk resided in the fat, and the public had learned to know that a milk which had a fairly high colour was, or ought to be, milk of fair richness, and it was in order to palm off poor milk on the public that the colouring matter was introduced. Whether that colouring matter was prejudicial to the milk was a question upon which, so far as he had been able to gather, medical men differed. As to preservatives in milk, he would either prohibit them altogether or lay down in the Act a very strict limit. With regard to moisture in butter he would suggest as a standard 15 or 16 per cent. for fresh, and 16 or 18 per cent. for salt butter. As to the Bill of the Society of Public Analysts his objection to it was that it made the public analyst an autocrat and put other analysts in a position of utter helplessness.

Mr. Primrose, chairman of the Board of Customs, said he had given some attention to the question of analysing goods at the port of entry, and the conclusion he had come to was that to do any good whatever would entail great extra cost upon the Board and lead to serious delay in the delivery of goods. In one or two cases the Board had acted under the Merchandise Marks Act and detained butter at the port of entry, but they had only done so on receiving information as to the character of the goods and obtaining security against loss from the informant. The risk of acting upon their own motion was too great for the Board to undertake.

The Committee then adjourned.

The Select Committee met again on Tuesday, March 17th. Mr. T. W. Russell in the chair. Dr. Otto Hehner, the representative of the Society of Public Analysts, presented himself for further examination, and in reply to Sir John Leng he stated that the society came into existence about 1874, before the passing of the Food and Drugs Act, and when a Parliamentary Committee was sitting to inquire into the question of adulteration, and commencing with a small membership it now included nearly every public analyst in the country, while it was impossible for him to give in a few words an adequate definition of adulteration, the committee would find that in such countries as Germany and America definitions had been drawn and inserted in Acts of the Legislature. He considered nothing adulteration which was brought to the notice of the purchaser plainly. If he went into a shop and asked for coffee and he was told the article was a mixture of coffee and chicory he considered that no fraud had been committed because due notice had been given, while if the same mixture were sold without notice that would in the present state of our law constitute adulteration. Margarine was a legitimate article of food when sold as margarine, but when sold as butter it was a swindle. He did not consider it necessary to introduce colouring matter into butter mixtures. The chaotic state of the law with regard to drugs was a serious matter in connexion with public health, and he should like the law to say explicitly what was a pure drug. If the law said that the standard of the British Pharmacopœia or any other standard should be adopted, then he as an analyst could judge whether an article complied with it.

In reply to Mr. Kearley, Dr. Hehner said he had no desire to set aside Somerset House as a court of appeal. What he suggested was the appointment of a scientific committee capable of giving determinations as to what should be admitted into various products and not considered adulteration. Tinned vegetables were habitually coloured for the market, the public refusing to take them in their natural colour, and he would have this committee—this board of referees—determine how much, if any, of this colouring matter should be introduced. At present magistrates determined delicate points of this kind, and the decision of one magistrate had little or no influence with another, the result being that in one district tinned vegetables might be sold while in others they might not. He would also have this court of referees deal with preservatives and the limit of moisture in butter.

In answer to another member of the Committee, Dr. Hehner said that in his opinion butter was so cheap that margarine would rapidly die its own death. There was little reason for it now and there would be none in a few years.

Mr. William H. Grigg, sanitary inspector and inspector under the Food and Drugs Act for Fulham, gave evidence as to the conditions in which the inspector carries on his work and the troubles he has with his board. He said there was a case in London where no fewer than eight members of the board had been convicted on the evidence of their own inspector of offences against the Adulteration Acts.

The Committee adjourned at the conclusion of Mr. Grigg's examination.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ADAMS, C. H., B., L.R.C.S., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Junior House Surgeon to the Western General Dispensary, Marylebone.

BATTEN, W. S., M.R.C.S., has been appointed Medical Officer for the Second Sanitary District of the Calve Union.

BATES, T., L.R.C.P., L.R.C.S. Edin., M.R.C.S., has been appointed Medical Officer of Health to the Worcester City and County Nursing Institution.

BATTLE, ED. WHARMBY, M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Warrington Infirmary.

BEESLEY, R. W., M.B., C.M. Edin., has been appointed Junior House Surgeon to the Bolton Infirmary and Dispensary.

BUCKENHAM, J., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer to the Cambridge Provident Medical Institution.

BURTON, R. G., M.D., L.R.C.S. Edin., has been appointed Medical Officer of Health by the Hanwell Urban District Council.

COLLINGRIDGE, WM., M.D. Cantab., D.P.H., M.R.C.S., has been reappointed Medical Officer for the Port of London.

CREASE, J. R., JUN., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed House Surgeon to the Sunderland Eye Infirmary.

DALGARNO, J. J. Y., M.B., C.M. Aberd., has been appointed Anæsthetist and Medical Electrician to the Royal Infirmary, Aberdeen, and also reappointed Medical Officer to the Aberdeen General Dispensary.

DUNCAN, J. D., M.B., C.M. Edin., has been appointed Junior House Surgeon to the Infirmary, Carlisle.

EDWARD, G. M., M.D., C.M. Aberd., has been reappointed Physician to the Aberdeen General Dispensary.

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EDLAY, GEO., M.B., C.M. Aberd., has been reappointed Medical Officer of Health by the Brailes District Council.

IRDON, J., M D., C.M. Aberd., has been reappointed Physician to the Aberdeen General Dispensary.

IENWOOD, G. S., L.R.C.P. Lond., M.R.C.S., D.P.H., has been reappointed Medical Officer of Health for Ossett.

OLDEN, J. S., M.D. Irel., L.R.C.S. Edin., has been reappointed Medical Officer to the St. Leonard's Hospital, Sudbury.

OPKINS, W. K., M.R.C.S. Eng., L.R.C P. Lond., has been appointed Senior House Surgeon to the Western General Dispensary, Marylebone.

ILLY, S. A., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Acton Sanitary District of the Brentford Union.

IKES, W. BLACK, M.D., B.S. Lond., has been appointed Resident Physician to the Bathing Establishment at Llangammarch Wells, Central Wales.

INES, REES THOS., L.R.C.P., L.R.C.S. Edin., has been appointed Deputy Medical Officer for the No. 1 District of the Llandovery Union.

ING, H. D., M D., B.Sc. Edin., has been appointed Medical Officer to the St. Leonard's Hospital, Sudbury.

UCAS, CHAS., M.R.C.S., has been reappointed Medical Officer for the Fourth Sanitary District of the Newmarket Union.

ACKENZIE, JOHN, L.R.C.P., L.R.C S. Edin., L F.P.S. Glasg., has been appointed Medical Officer and Public Vaccinator for the Parish of Kirkby-in-Ashfield, Notts.

CKERRON, R. G., M.B., C.M., D.P.H. Aberd., has been reappointed Obstetric Physician and Public Vaccinator to the Aberdeen General Dispensary.

ASON, W. J., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer to the St. Leonard's Hospital, Sudbury.

ESSITER, A. F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Belton Sanitary District of the Thorne Union.

OSSER, T. G., M.R.C.S., has been reappointed Medical Officer of Health for the Monmouth Urban District.

URNELL, RICHARD, J.P., M.D. St. And., M.R.C.S., L.S.A., has been appointed Medical Officer of Health for Wells, Somerset.

EES, RHYS B., L.S.A. Lond., has been appointed Medical Officer to the Malden-road and Haverstock-hill Provident Dispensary, vice Rainford F. Gill, resigned.

OBERTSON, W. P., L.D.S., has been reappointed Dental Surgeon to the Aberdeen General Dispensary.

ANDERS, CHARLES, M.B. Lond., M.R.C.S. Eng., has been appointed Medical Officer for the West Ham District to the London and India Docks Joint Committee.

ORLEY, J., M.B., C.M. Edin., has been appointed Senior Assistant Medical Officer to the Sheffield Workhouse.

TEPHENSON, WM., M.D., F.R.C.S. Edin., has been reappointed Midwifery Superintendent to the Aberdeen General Dispensary.

HOMAS, F. W., M.R C.S., has been appointed Medical Officer for the Rudry Sanitary District.

ATT, GEO., M.D., C.M. Aberd., has been reappointed Medical Officer to the Aberdeen General Dispensary.

ILLIAMS, HERBERT, M.D. Lond., L.R.C.P., M.R.C.S., has been reappointed Medical Officer for the Port of London Sanitary Authority.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ANCOATS HOSPITAL, Manchester.—Resident Junior House Surgeon Salary £60, with board and washing.

BETHLEM HOSPITAL.—Two resident Clinical Assistants, for six months. Apartments, board, and washing provided. Applications to the Clerk, Bridewell Hospital, New Bridge-street, E.C.

BOROUGH OF SUNDERLAND, PORT OF SUNDERLAND.—Medical Officer of Health and Public Analyst for the district of the Borough and Port. Salary £500 as Medical Officer for the Borough, £20 for the like office for the Port, and £5 as Public Analyst; in all £525 per annum. Applications to the Town Clerk, Town Hall, Sunderland.

BRADFORD INFIRMARY.—Dispensary Surgeon. Salary £100 per annum with board and residence. Also Junior House Surgeon. Salary £50 per annum, with board and residence.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Assistant Physician.—Also Pathologist. Salary 100 guineas per annum.

COUNTIES ASYLUM, Carlisle.—Junior Medical Assistant. £80 a year, with board. Applications to Dr. Campbell, Garlands, Carlisle.

DUNDEE ROYAL LUNATIC ASYLUM.—Assistant Medical Officer. Salary £100 a year, with board, lodging, &c.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Surgeon. Board, lodging, &c., provided.

ECCLES AND PATRICROFT HOSPITAL, Patricroft.—House Surgeon. Salary £60, with board, residence, and washing provided.

HOSPITAL FOR WOMEN (THE LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.

HOSPITAL FOR WOMEN AND CHILDREN, Leeds.—House Surgeon, non-resident, for twelve months. Salary £90 per annum.

HULL ROYAL INFIRMARY.—Junior Assistant House Surgeon, for one year. Salary £40, with board and lodging.

LIVERPOOL STANLEY HOSPITAL.—Honorary Assistant Physician.

LONDON COUNTY ASYLUM, Banstead Downs, near Sutton, Surrey.—Fifth Assistant Medical Officer and Pathologist, unmarried. Salary £120 per annum, rising by £5 a year to £150, with board, lodging, and washing. Applications to the Clerk of the Asylums Committee, London Asylums Committee Office, 21, Whitehall-place, London, S.W.

LONDON LOCK HOSPITAL.—House Surgeon, Male Hospital, for twelve months. Salary £50, with board, lodging, and washing.—Also Assistant Surgeon, Female Hospital, Harrow-road. Board, lodging, and washing provided.

MOSELEY HALL CONVALESCENT HOME FOR CHILDREN, near Birmingham.—Honorary Physician and Honorary Acting Surgeon, and a Non-resident House Surgeon. Salary of the latter £30 per annum.

NORFOLK AND NORWICH HOSPITAL, Norwich.—Resident Assistant to the House Surgeon. Board, lodging, &c., provided.

OLDHAM INFIRMARY.—Junior House Surgeon. Salary £50 per annum, with board and residence.

ORIOLET HOSPITAL, Loughton, Essex.—Assistant Medical Officer Honorarium £20.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon, for six months. Board, lodging, and washing provided.

ROYAL ALBERT EDWARD INFIRMARY, Wigan.—Junior House Surgeon for twelve months. Salary £80 a year, with rations and apartments (exclusive of wines, spirits, and washing).

ROYAL COLLEGE OF PHYSICIANS, London.—Milroy Lecturer.

ROYAL HOSPITAL FOR SICK CHILDREN, Glasgow.—Dispensary Assistant Surgeon, non-resident, for twelve months. Honorarium £20.

ST. MARY'S HOSPITAL, Paddington, W.—Lecturer on Tropical Diseases in the Medical School.

SUNDERLAND INFIRMARY.—House Surgeon. Salary £80, rising £10 annualy to £100, with board and residence.

TEIGNMOUTH HOSPITAL, South Devon.—House Surgeon (to act also as Secretary). Salary £66, with board, lodging, and washing.

UNIVERSITY, COLLEGE, BRISTOL, FACULTY OF MEDICINE.—Medical Tutor. Salary £125.

WESTON-SUPER-MARE HOSPITAL.—House Surgeon, unmarried. Salary £60 per annum, with board and residence in the hospital.

WORCESTER GENERAL INFIRMARY.—Assistant House Surgeon and Dispenser, unmarried, for two years. Salary £70 per annum, with board, residence, and washing.

YORK DISPENSARY.—Resident Medical Officer, unmarried. Salary £150 a year, with furnished apartments, coals, and gas.

Births, Marriages, and Deaths.

BIRTHS.

ANDREW.—On March 12th, at Hethersett, Hendon, N.W., the wife of F. W. Andrew, M.R.C.S., L.R.C.P., of a son.

BURNS.—On March 13th, at Fair Mead, Waltham-cross, the wife of William C. Burns, M.B. Edin., of a son.

COLDSTREAM.—On March 12th, at Belford, Northumberland, the wife of George Probyn Coldstream, M.B., C.M. Edin., of a daughter.

FLECK.—On March 14th, at 39, High-street, High Wycombe, the wife of William Fleck, M.D., of a daughter.

FOX.—On March 13th, at Brislington House, near Bristol, the wife of Bonville Bradley Fox, M.D. Oxon., of a son.

MCGEAGH.—On March 3rd, at 28, Spellow-lane, Liverpool, the wife of R. T. McGeagh, M.D., of a son.

MURDOCH.—On March 11th, at The Oaks, Hythe, Kent, the wife of Alan Murdoch, M.R.C.S., L.R.C.P., prematurely, of a daughter.

NASH.—On March 10th, at St. Peter's, Bedford, the wife of W. Gifford Nash, F.R.C.S., of a daughter.

PINCOTT.—On March 14th, at Calverley-parade, Tunbridge Wells, the wife of James C. Pincott, M.R.C.S., L.R.C.P., &c., of a daughter.

PITT.—On March 13th, at St. Thomas's-street, S.E., the wife of G. Newton Pitt, M.D. Camb., F.R.C.P., of a daughter.

TURNER.—On March 10th, at Königin Augusta-strasse, Berlin, the wife of Philip Dymock Turner, M.D. Lond., of a daughter.

UHTHOFF.—On March 10th, at Wavertree House, Brighton, the wife of John Caldwell Uhthoff, M.D. Lond., of a daughter.

MARRIAGE.

MORTIS—WRIGHT.—On March 11th, at the Parish Church, Markfield, Leicester, Harold Edward Mortis, L.R.C.P. Lond., L.S.A., of Dovaston House, Kinnerley, Oswestry, to Amy Florence, third daughter of the late John Wright, M.R.C.S., L.S.A., of Markfield.

DEATHS.

BRABAZON.—On March 13th, at Darlington-street, Bath, Anthony Beaufort Brabazon, M.D. Aberd., aged 74.

MANVILLE.—On March 14th, at Castellain-road, W., B. H. Manville, M.R.C.S., aged 61.

PRALL.—On March 10th, at Bampton, Oxfordshire, Lucy, the dearly beloved and devoted wife of J. Henniker Prall, L.R.C.P. Lond. and M.R.C.S. Eng., aged 31.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 19th, 1896.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Mar. 13	29·98	S.E.	40	37	66	46	38	...	Cloudy
,, 14	29 82	S.	44	42	69	55	40	...	Overcast
,, 15	29·85	W.	41	39	82	54	36	0·01	Cloudy
,, 16	29 68	S.W.	51	49	79	56	40	0·01	Raining
,, 17	29·95	WSW	47	45	56	56	43	0·01	Cloudy
,, 18	29·59	N.	49	48	50	50	47	0 43	Raining
,, 19	29·93	S.W.	40	39	67	49	37	0·46	Foggy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (23rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (24th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2 30 P.M.). Cancer (2 P.M.).

WEDNESDAY (25th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (26th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (27th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY (28th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (23rd).—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. A. Doran: Four Cases of Early Extra-uterine Gestation.—Mr. H. Cripps: Ten Cases of Extra-uterine Pregnancy.

TUESDAY (24th).—SOCIETY OF ARTS.—8 P.M. Mr. C. R. Valentine: The Colonies and the Supply of Dairy Produce and Products of Petite Culture.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 30 P.M. Mr. R. J. Godlee: On the Effects produced by the Retention of Foreign Bodies for Lengthened Periods in the Bronchial Tubes.—Dr. J. A. Hayward and Mr. C. Buttar: Antiseptics in Infantile Diarrhœa.

WEDNESDAY (25th).—DERMATOLOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—5 P.M. Dr. Eddowes: Warts on the Feet.—Dr. Savill: Morphœa Nigra. Cases by Drs. Abraham, Eddowes and others.

SOCIETY OF ARTS.—8 P.M. Prof. J. Long: Our Food Supply, as Affected by the Farming of the Future.

HUNTERIAN SOCIETY.—Clinical Evening (Living Cases). Dr. Arnold Chaplin: Bronchiectasis treated by Creasote Inhalations.—Mr. H. P. Dean: Injury to Elbow in a Child. Cases have been promised by several other Fellows.

THURSDAY (26th).—SOCIETY OF ARTS (Imperial Institute, South Kensington).—8.30 P.M. Mr. W. R. Lawrence: Kashmir; its People and its Products.

FRIDAY (27th).—CLINICAL SOCIETY OF LONDON.—8 30 P.M. Dr. F. J. Smith and Mr. Bidwell: A Case of Tubercular Kidney.—Mr. Mayo Robson: A Series of Cases of Enterectomy, with Remarks on the various Methods employed in Securing Union of Divided Edges of the Hollow Viscera.—Mr. L. A. Dunn: A Case of Successful Suture of a Duodenal Ulcer.—Mr. R. J. Godlee: Two Cases of Acute Abscess of the Liver.

LECTURES, ADDRESSES, DEMONSTRATIONS &c.

MONDAY (23rd).—LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 1 P.M., Mr. R. M. Gunn: Cataract.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Dr. H. Law: Demonstration of Cases.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Prof. J. A. Coutts: Infantile Syphilis.

TUESDAY (24th).—LONDON POST-GRADUATE COURSE.—Bethlem Hospital, 2 P.M., Dr. Craig: Moral and Impulsive Insanities, and Lunacy Law.

ROYAL INSTITUTION.—3 P.M. Prof. Charles Stewart: The External Covering of Plants and Animals: its Structure and Functions.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—5 P.M. Sir Dyce Duckworth: On the Sequels of Diseases. (Lumleian Lecture.)

WEDNESDAY (25th).—HOSPITAL FOR CONSUMPTION, &C. (Brompton)—4 P.M. Dr. Wethered: Deformities of the Thorax and their Results.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Prof. J. A. Coutts: Infantile Syphilis.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Mr. Bidwell: The Application of Plaster-of-Paris Splints.

LONDON POST-GRADUATE COURSE.—Roy. Lond. Ophthalmic Hospital, Moorfields, 8 P.M., Mr. E. T. Collins: Orbital and Ocular Tumours.

Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: Selected Cases.

THURSDAY (26th).—ROYAL INSTITUTION.—3 P.M. Rev. W. Barry: Masters of Modern Thought—Spinoza.

ROYAL COLLEGE OF PHYSICIANS, LONDON.—5 P.M. Sir Dyce Duckworth: On the Sequels of Diseases.

LONDON POST-GRADUATE COURSE.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Mr. J. Hopkins: Clinical Lecture.—Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M., Dr. Allan Macfadyen and Mr. A. G. Foulerton: Detection of Drugs in Urine.

FRIDAY (27th).—LONDON POST-GRADUATE COURSE.—King's College to 5 P.M., Prof. Crookshank: Tetanus, Rabies, and Cholera.

CENTRAL LONDON THROAT, NOSE, AND EAR HOSPITAL.—4 P.M. Mr. Carmalt Jones: On Turbinotomy, as practised at this Hospital.

ROYAL COLLEGE OF SURGEONS.—5 P.M. Prof. J. A. Coutts: Infantile Syphilis.

ROYAL INSTITUTION.—9 P.M. Prof. Dewar: New Researches on Liquid Air.

SATURDAY (28th).—ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Light.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

VOLUMES AND CASES.

VOLUMES for the second half of the year 1895 are now ready. Bound in cloth, gilt lettered, price 18*s*.

Cases for binding the half-year's numbers are also ready. Cloth, gilt lettered, price 2*s*.; by post, 2*s*. 3*d*.

To be obtained on application to the Manager, accompanied by remittance.

"INSURANCE AGAINST SICKNESS OR ACCIDENT."

To the Editors of THE LANCET.

SIRS,—I have been informed by an agent of the Sickness and Accident Assurance Association, Limited, that his company would not object to a medical member seeing patients in his own house while still drawing sick pay. Can any of your readers who are assured with this Association tell if this be correct? The Medical Assurance Society rules are extremely strict on this point. I am, Sirs, yours truly,

March 14th, 1896. B. M.

Subscriber.—We cannot recommend any lady to take up the case unless she has special chances of obtaining employment.

Mr. Julius Neville is thanked for his communication.

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LAY JOURNALS AS MEDICAL ADVISERS.

THE member of the staff whose duty it is to answer correspondents in *Tit-Bits* expresses himself as follows in a recent issue of that widely circulated journal:—

> "M.D. need not be alarmed at our taking many fees from him and his brother physicians. We have constantly declined to have a medical column in the paper for the very reasons set forth by this correspondent, but occasionally in cases of distressing suffering—such as insomnia—where a simple remedy might be suggested, we have on a few occasions recommended such. But we have never done so without first getting a medical opinion that the application of it would be harmless."

We have quoted this reply *in extenso*, partly on account of its remarkable naïveté, but also because the question involved is one of considerable importance. The very fact that—unlike many of its congeners—*Tit-Bits* has no "medical column" enhances the danger of occasionally recommending the employment by people at a distance of powerful, and even poisonous, drugs. In the case alluded to by "M.D." the medicine prescribed was sulphonal, which we can assure the *Tit-Bits* prescriber is by no means "a simple remedy"; and we can also inform him that the causes on which insomnia depends are far too complex to render it expedient that anyone, qualified or not, should order remedies, however "harmless," save after careful inquiry.

THE REGURGITATION OF BILE INTO THE STOMACH.

To the Editors of THE LANCET.

SIRS,—Will you kindly insert the following queries? 1. Under what circumstances does bile regurgitate into the stomach? 2. What is the significance of about an ounce of fluid, chiefly consisting of bile, in the stomach on rising in the morning?—I am, Sirs, yours faithfully,

March 16th, 1896. PHUSIOS.

JOHN SAVAGE, SURGEON.

To the Editors of THE LANCET.

SIRS,—Can you or any of your readers give me any information regarding "John Savage, Esq., Surgeon, and Corresponding Member to the Royal Jennerian Society"? Such is the imprint on the title-page of a work by him published in 1807, entitled "Some Account of New Zealand," &c. I am, Sirs, yours faithfully,

Dunedin, N.Z., Jan. 20th, 1896. T. M. HOCKEN.

UGH!

To the Editors of THE LANCET.

SIRS,—The blowing of calves for the purpose of making the veal have that puffy and inflated appearance so commonly seen and appreciated is produced by a most disgusting and insanitary process. It is done in this way: the butchers put a blow-pipe through the skin and one man blows into it with his mouth, and another man beats the hide with a gambrel so as to diffuse the air over the carcase of the animal. Now, where the disgusting part comes in is that the breath of the man is diffused through the whole of the cellular tissue of the animal; the man so blowing may be a smoker or a drinker with foul breath, perhaps half drunk whilst doing it, or he may be suffering, or has suffered, from some infectious disease that anti-vaccinators would howl at the chance of being conveyed into the systems of their children through vaccination, but can see no objection to their taking a food that is liable to be infected in a greater degree. I will give you a case in point. A butcher in ——, who was considered to be the best dresser of veal in the district, had his breath so frightfully foul that when his fellow-tradesmen went to —— Market on Wednesday mornings they waited on the platform to see into which compartment he went, they then entering another, as they could not stand the stench of his breath. Now I do not object to the blowing of veal providing it is done in a mechanical way, which it can be by using a pump, such as is employed in inflating pneumatic tyres.

I am, Sirs, yours faithfully,

Brierley Hill, March 12th, 1896. E. SAINTHILL PEARSE.

"WANTED, A SUGGESTION."

To the Editors of THE LANCET.

SIRS,—I would suggest to "Nemo" that he try carron oil in the case he mentions; it has done much good in a case of itching with which I am acquainted when other things failed.

I am, Sirs, yours truly,

8, Finsbury-circus, E.C., March 16th, 1896. THOS. GLOVER LYON.

Senex.—The proceedings of the General Medical Council are to be found in the minutes, which are published annually. Before the issue of the annual volumes of minutes, minutes of particular meetings and of the executive committee are published, and can be obtained from the publishers or at the General Medical Council Office, 299, Oxford-street, W.

M.R.C.S., L.S.A.—The article is a piece of gross advertising, but as the lady in question is not on the Register for 1896 she is not likely to pay much attention to any strictures upon her conduct.

AMBULANCE LECTURES AND MEDICAL ADVERTISEMENT.

Two correspondents complain that some medical men get themselves extensively advertised in connexion with ambulance lectures. We agree that such lectures should be advertised without names. One of our correspondents writes from Glasgow, the other from London—evidently without collusion. The proper sense of the essential privacy of our profession and its methods is finding strong and general expression.

A WHOLESALE ABORTIONIST.

To the Editors of THE LANCET.

SIRS,—A rather novel experience occurred to me the other day. Two young women called upon me and one of them asked if I thought the other was pregnant, and after due inquiries I replied in the affirmative. She then asked if I would bring it on for her, and without waiting for a reply she said if I would not Dr. So-and-so would, but he charged 10*s.* 6*d.* which she thought was too much. She had known a number of girls go to him for that purpose and with complete success. She also showed me an advertisement which she had cut out of a paper in which this so called doctor advertises his pills to ladies, and says "they will have the desired effect in twenty-four hours." Having told them it was no use coming to me for such a purpose they departed with the intention of proceeding at once to this Dr. So-and-so. Since then I have passed his house; it is an ordinary dispensary, but with no name on the door, and on the window is the following: "Depôt for Dr. So-and-so's special remedies." One can easily imagine what these "special remedies" are for, and no doubt this quack carries on a good trade in this "speciality." It seems very extraordinary that the law should allow such things to occur in this barefaced manner. I am, Sirs, yours faithfully,

March 14th, 1896. M.D.

"CARSON'S ANTI-STOOP."

To the Editors of THE LANCET.

SIRS,—I shall be obliged if you will kindly allow me space to reply briefly to your correspondent "Artegal." I am sorry that owing to delays caused by various technical difficulties of manufacture, &c., my "Anti-stoop" has only just made its appearance before the public in perfect condition, and therefore, so far as I know, there is no instance of anyone about forty years of age, and having had a pronounced stoop for ten or fifteen years, having worn one. If, however, "Artegal" will communicate with the sole agents, Messrs. Arnold and Sons, West Smithfield, London, E.C., with whom I have conferred, they will be happy to let him have an "Anti-stoop" for two or three months on approval, and I have every confidence that it will be thoroughly effective even in so difficult a case as the one your correspondent cites.

I am, Sirs, yours truly,

WM. A. CARSON,

March 18th, 1896. Inventor of the Carson "Anti-stoop."

To the Editors of THE LANCET.

SIRS,—In answer to the question in THE LANCET of last week I beg to inform you that the pelvic band of my late father, Dr. Protheroe Smith, would suit the case referred to. It has to be moulded on while the steel is soft, it is then tempered, and exercises a gentle but continuous influence on the spine. I am, Sirs, yours truly,

Harley-street, W., March 18th, 1896. HEYWOOD SMITH.

ERRATUM.—In the letter from Mr. Wyatt Wingrave in THE LANCET of March 14th (p. 737) on "The Comparative Nutrient Value of Meat Preparations," in the eleventh line "dry" albumin should read *myo*-albumin.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

During the week marked copies of the following newspapers have been received: — *Bolton Evening News, Kidderminster Shuttle, Derbyshire Times, Chatham News, Buckingham Express, Hastings and St. Leonards News, Malvern Advertiser, Wigan Examiner, Times of India, North Eastern Daily Telegraph, Wolverhampton Chronicle, Pioneer Mail, Bromsgrove Messenger, Northern Whig, Scotsman, Bristol Times, Warwick Advertiser, Bradford Daily Argus, Architect, South Wales Daily Post, Irish Times, Builder, Manchester Guardian, Brighton Gazette, Kentish Express, Bristol Mercury, Essex County Standard, Pullen's Kent Argus, Birmingham Gazette, Liverpool Mercury, Yorkshire Post, Western Morning News, Express and Star (Wolverhampton), Sussex Daily News, Hull Daily News, Liverpool Daily Post, Leeds Mercury, Sanitary Record, Banbury Advertiser, Evening News (Portsmouth), The Mail (Portsmouth), Le Courrier de la Presse, Tasmanian Mail, Rangoon Times, Levant Herald (Constantinople), Toronto Mail, Englishman (Calcutta), Hertfordshire Mercury, City Press, Weekly Free Press and Aberdeen Herald, Hemel Hempstead Gazette, Local Government Chronicle, South Wales Argus, Mining Journal, West Middlesex Standard, Surrey Advertiser, Messenger of Health, Local Government Journal, Gloucestershire Chronicle, Echo, Evening Telegraph (Dundee), Leeds Daily News, Christian News (Glasgow), Morning, Daily Chronicle, Guy's Hospital Gazette, &c., &c.*

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The Lumleian Lectures

ON

THE SEQUELS OF DISEASES.

Delivered before the Royal College of Physicians of London

BY SIR DYCE DUCKWORTH, M.D., LL.D. EDIN.,

FELLOW AND TREASURER OF THE COLLEGE; PHYSICIAN AND LECTURER ON MEDICINE, ST. BARTHOLOMEW'S HOSPITAL; AND HONORARY PHYSICIAN TO H.R.H. THE PRINCE OF WALES.

LECTURE I.[1]

Delivered on March 10th, 1896.

MR. PRESIDENT AND GENTLEMEN,—Three hundred and fifteen years ago Dr. Richard Caldwell (a former President of this College) and Lord Lumley obtained leave of Queen Elizabeth to found a Surgical Lectureship in this College.[2] They endowed it in perpetuity with the sum of £40 per annum, one-half of which was charged on Lord Lumley's estates in Sussex, the other on Dr. Caldwell's properties in Derbyshire. The lecturers were at first appointed for life. One who so held the office was the illustrious Harvey, who was instituted to it 280 years ago, and who, with some intermissions, was Lumleian Lecturer for forty years. He resigned the position in 1656, when, owing to failing health, he formally took his leave of the College, and handed over the title-deeds of his patrimonial estate at Burmarsh for its benefit. It was in his capacity of Lumleian Lecturer that he gradually promulgated and demonstrated his original researches upon the circulation of the blood. It is of interest to find that our College is indebted to Harvey, as Dr. Munk tells us, for enforcing by expensive legal proceedings the due payment of the lecturer's salary from the heirs of Lord Lumley. In 1640 he sought permission from the College to sue for the unpaid rent-charge, which was granted. Harvey's absence from London with the king and the political disturbances of the period probably prevented his carrying out this object. Harvey had been treasurer of the College from 1628–1629 and knew all about its finances (such as they were in those days), and thus the College accounts must have been getting into disorder, while he himself was receiving no stipend for his lectureship. He returned to the charge, however, in 1647, having again sought permission to sue for what was due. It is sad to learn that after expending at least £500 in various law-suits, lasting over ten years, to secure what was right, the matter was not effectually settled till some time after his death, and only then at the expense of his friend and executor, Sir Charles Scarburgh, to whom he transferred this lectureship, and also bequeathed his velvet gown and "silver instruments of surgerie." The College will, I feel sure, gladly learn that, as the treasurer of to-day, I find no difficulty in securing punctual payments of the several small rent-charges due under the Lumley Trust to its chest. A Lumleian Lecturer may be pardoned if he seeks in ever so small a way to commemorate some of his predecessors in the office, but I will intrude no further on your patience than by reminding you merely of the names of such men as Peter Mere Latham, Thomas Watson, Richard Bright, Thomas Mayo, James Copland, Alexander Tweedie, and George Burrows, not to mention those of men now happily still with us who have stood in this place and by their prelections shed light on many difficult problems in physic.

Although it was clearly the intention of the founders of these lectures that some surgical subject should be discussed by the lecturer, we have evidence that very shortly after their institution there was but a scanty attendance at "the chirurgical lectures." Harvey's discourses, doubtless, proved more attractive some thirty years afterwards, and were mainly anatomical and physiological. Early in the eighteenth century the lectures appear to have become strictly medical or on subjects coming distinctly within the province of the physician. The reason for this is, I think, quite obvious. Cheselden and Percivall Pott were at work at this time, and John Hunter, the pupil of the latter, was soon to make his name famous. Our sister college was about to get a new charter and foster the labours of Hunter and his brilliant pupils. The physicians were no longer to teach anatomy to surgeons. Medicine and surgery were henceforth, as Abernethy expressed it, "one and indivisible." If that was recognised as a fact in the last quarter of the eighteenth century, what shall we say of it now in the declining years of the nineteenth? I feel sure that nowhere will it be more certainly affirmed than in this place, and approved by such an auditory as is now present, that the triumphs of modern surgery command the admiration and the warmest appreciation of the best clinical physicians. The advances of surgery have in the best interests of our patients compelled our attention to them, and it may be fairly affirmed that this has been done in no grudging spirit, for we work happily and harmoniously together with surgeons for the welfare of humanity. The natural course of events in the progress and evolution of the sciences on which our art depends has, therefore, led your Lumleian Lecturers to select for many years past subjects for their discourses which come more especially under the cognisance of the physician. Four years ago my predecessor[3] in this course of lectures took for his subject the Ætiology of Disease, considered from a modern standpoint. It appears now desirable to review our knowledge as to the sequels of diseases from a similar position. I could wish it were in my power to bring before you an exposition of these chapters of pathology with something of the erudition and lucidity which characterised the lecturer of 1892.

I propose, then, in this course of lectures to discuss as fully as I can the subject of the Sequels of Diseases. Our knowledge of this is far from anything like completeness; indeed, it may be said to be very small and most inadequate, yet it is a very large subject and it has never, so far as I am aware, been made one of systematic study. It was a saying of one of our most distinguished Fellows, the late Dr. William Baly, whose early death was the gravest loss to my own hospital, to this College, and to the whole profession in England, a saying treasured up in the writings of his colleague, Sir James Paget, that, in his opinion, one of the most useful books that might be written would be one on the diseases of convalescence. That opinion was uttered some five-and-thirty years ago, but in the meantime no such book has gone through the press. It may, however, now be truly affirmed that within this period large additions have been made to our knowledge of the sequels of disease. We are in a better position to review the whole subject, better equipped than were those of a generation back to speak with certainty on some of the problems involved, and thus able to traverse the opinions then put forth, and to test them by the light of modern researches which have been, and continue to be, so remarkable, so fruitful, and so noteworthy. The field for observation and exact determination in the direction I now set out upon is indeed immense, so large that the experience of no one amongst us is, or ever can be, adequate for the purpose in view, and we may therefore ask at the outset, "Who is sufficient for these things?" I can only hope, then, to try to map out the large field before me somewhat in the fashion of an explorer in a new territory. Many gaps and many tracts will be left blank on the chart. Others will come after and fill in these spaces in the dark country with better purpose and more lucid delineation. But it is, indeed, time that something were provisionally attempted and definitely laid down. The first difficulty which besets the inquirer into this subject is to determine and define what constitutes a veritable sequel in the case of any disease. This difficulty grows greater as modern research throws more light upon etiology and the intimate nature of morbid processes. What the physicians of half a century ago deemed to be sequels of disease must now be

[1] Lectures II. and III. were delivered on March 24th and 26th.

[2] Dr. Church, in his Harveian Oration last year, signalised Dr. Caldwell and Lord Lumley as amongst the foremost of the benefactors of this College. He endeavoured, without success, to discover the nature of the connexion between them. He noted that Lord Lumley succeeded his father, Lord Arundel, as High Steward of the University of Oxford in 1568. He was the seventh Baron, and succeeded his grandfather George Lumley. His own father suffered death for high treason in the ninth year of the reign of Henry VIII. He was made a Knight of the Bath. He was a fellow-commoner of Queen's College, Cambridge, died in 1609, and was buried in the chancel of the church at Cheam (*vide* Appendix, p. 55, of Dr. Church's Oration). Holinshed speaks of Caldwell as "the English Hippocrates and Galen." He was a Fellow of Brasenose and Senior Student of Christchurch, Oxford, and President of this College in 1570. Caius succeeded him for a third term of office in 1571.

[3] Dr. Pye-Smith.

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regarded by us, in not a few instances, as but later evolutional manifestations of the primary and original *quid-quid irritans*. Such consequences may occur early or very late, and yet may be certainly referred to the noxious elements which originally broke in and disturbed the health of the individual. In such instances I take it that we must regard the particular consequence as a veritable sequel, although we do not regard it from the patient's point of view as a new malady. We shall find that many of the disorders of convalescence fall into the category I have just indicated. The early physicians recognised the occurrence of some sequels of diseases, though but little is to be found bearing on the subject in their writings. It is certain, for instance, that Hippocrates was familiar with orchitis as an early and a late consequence of parotitis, since he described the condition at some length in the "Epidemics." Aretæus noted that gout passed into dropsy and sometimes into asthma.[4] Seventy years ago the subject attracted much attention from Graves, who in his chapter on Fever described several sequels, and especially the occurrence of white leg or venous thrombosis.[5] About the same time Dr. Caleb Hillier Parry of Bath, a Licentiate of this College, was near to describing sequels of diseases in his interesting books on the "Elements of Pathology and Therapeutics," especially in his chapter on the Relation of Diseases by Conversion, wherein he embodies a series of careful observations made upon patients many of whose symptoms were then really inscrutable to him, although they were believed to be due to increased determination of blood, his universal doctrine, but of which some admit now of very clear interpretation. Thus we meet with accounts of "cases of pleurisy which gave way to immediate and fatal diseases of the head, of which one case was proved by the dissection to have arisen from inflammation and albuminous effusion above the pia mater." Here we have without doubt a case of tuberculous pleurisy to which tuberculous meningitis was a sequel. In another case he tells of hæmorrhage from the kidneys immediately succeeding the desquamation of measles. We can hardly doubt that this was an example of glomerular nephritis following not measles but scarlet fever. Amongst these observations are many remarkable instances of metastasis of gout, of which, I venture to believe, we now see fewer examples than did the physicians of the eighteenth century. To mention but one, the frequency of erysipelas in Parry's time as a precursor and a sequel of gout is certainly not recognised in these days. (James Gregory of Edinburgh noted the frequency of facial erysipelas in the daughters of gouty men.) Caleb Hillier Parry was a great physician, and it is not sufficiently known that he anticipated Graves in the recognition of exophthalmic goitre, and was possibly the first to describe the visual phenomena of megrim known as teichopsia, a fact which has been fully set out in his learned work on "Hemicrania" by our present registrar.

The ordinary conception of a sequel is the occurrence, sooner or later, after recovery from an illness is seemingly established, of new symptoms and physical signs of disease either near to, or remote from, parts which had been the seat of disturbance in the original malady. Some of these have long been recognised, and little surprise is felt when they supervene, though we may never have been able to predict their certain onset. Amongst such may be mentioned the occurrence of various palsies after diphtheria, and of rheumatism with cardiac complications after scarlet fever. However we may explain these they are true sequels, albeit they may be inconstant and only ensue in a proportion of cases of these disorders. Throughout our present inquiry we shall do well to bear in mind the following apophthegm of Sir William Jenner to the effect that "the invariable antecedent of any given event is not necessarily its cause. Invariable antecedent and invariable consequent are not synonymous with cause and effect." I shall endeavour to find a reply to the very pertinent inquiry which Sir James Paget has suggested, whether each disease does not leave after it has ceased certain conditions of blood or structure which sooner or later may manifest themselves in what may be named a residual disease. He remarks that of the soon-occurring sequels of disease we know many; of the later comparatively few. We shall find that our knowledge of the later sequels has been enlarged within quite recent date, especially in regard to the large class of specific and infectious diseases. The question relating to latency of such peccant matters as may sometimes after very long intervals be roused into activity and afford characteristic signs is one of large interest and receiving some attention at the present time. We have to determine what are the limits of duration of latency, and in any given instance to prove, if possible, that these specific and toxic residues have remained latent and have not been reintroduced from without. We have to learn what conditions of the tissues and of the blood dispose to, and determine latency, and, further, to ascertain in what forms, particulate or other, germs or toxines remain latent within the body. We must look almost exclusively to the pathological laboratories for replies to most of these pressing inquiries. Such investigations call for the highest skill and experience from workers widely trained in animal chemistry no less than bacteriology, for they are beset with many pitfalls which are alone known to skilled observers. The physician who is conversant with the attested results of these researches is indeed well equipped when he comes to his work at the bedside.

We have next to consider the occurrence of new morbid conditions which appear to be determined by the previous incidence of definite disease. An example of this is perhaps afforded by the onset of the malady known as tabes dorsalis which is now recognised as a not infrequent sequel in the subjects of constitutional syphilis. It is found that in the subjects of tabes dorsalis syphilis figures to the extent of over 80 per cent., and it is hardly possible to believe that this far-reaching infection is not answerable for a very large proportion of cases of tabes. We cannot assign the spinal and cerebral lesions of this latter malady to definite forms of syphiloma, neither morbid histology nor therapeusis affording any proof in support of such a contention; hence we are constrained to believe that the blighting influences of the infection of lues in some way predispose the subjects of it to subsequent specific degeneration in certain tracts of the spinal marrow, and thus we come to regard tabes dorsalis as one of the possible sequelæ of syphilis. One of our present Censors,[6] pre-eminent for scrutiny and little ready to be satisfied with specious arguments, has declared in respect of this very question that possibly as large a percentage of syphilis might be discoverable were it looked for amongst the unhappy subjects of our limbs in any surgical wards. This may be the case, but I hardly see that it materially affects the proposition before us, and I think great force is added to the contention by the fact that when women who are rarely the subjects of tabes dorsalis suffer from it they have frequently at a previous period been the victims of constitutional syphilis. I may add the authority of Dr. Buzzard for the latter statement. We shall find as we proceed how certain illnesses, as a test the constitution of the patient and bring to light some phase or indication of his peculiar diathesis or bodily state, and this it may be for the first time in his life. In this way scrofulous manifestations may supervene upon enteric or upon scarlet fever, and gout or disorders of digestive nature may come out after fevers or prolonged illnesses, neither tendency having previously been suspected. These developments may fairly be regarded as sequelæ of the original ailments that primarily evoked them, for they possibly never have been manifested or have been latent or dormant till otherwise called into activity later in life.

The study of convalescence from acute disease affords a very large one. Our daily experience tells of the differences to be met with in the rate and course of recovery from illnesses, differences attributable in each case to age, life-history, diathetic predisposition, and the various environments of the patient. Sometimes our gravest anxieties respecting ultimate recovery only begin when the acute processes have subsided and the patient is being restored to his original level of nutrition and vigour. Especially is this the case after such illnesses as pneumonia or enteric fever, more particularly in elderly persons. Many of our surgical colleagues can bear witness to similar facts in cases where the powers of life are well-nigh overthrown by the inadequate healing of large wounds and by the protracted convalescence from chronic pyæmia.

In order that an inquiry may be as complete as possible it appears to me necessary to consider *seria*

[4] Περὶ αἰτίων καὶ σημείων χρονίων παθῶν. βιβλ. Β. Περὶ Ἀρθρίτιδος καὶ Ἰσχιάδος.

[5] Clinical Medicine, reprint from second edition, p. 195, 1864.

[6] P. H. Pye-Smith: Lumleian Lectures, 1892, p. 106. He, however, admits that the frequency of the association is greater than can be explained by coincidence.

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they affect the several systems and organs of the body, and to discover as we thus proceed what we know for certain in respect of any near or remote consequences which may arise from them. This may at first sight appear a somewhat tedious process, but it will prevent desultoriness and, presumably, some omissions. I take first, then, for consideration the large class of specific contagious diseases. We shall find that these, as might be expected, furnish many, indeed, the greater number of examples of sequels, some of which are well recognised, others less so. I shall not refer at any length to complications which have little concern for us in this inquiry. Our knowledge respecting this part of our subject has been greatly enlarged in recent years, especially in relation to sequels involving the cerebro-spinal system. We have to determine the causes of these, to discover if the sequels are as specific as the diseases which induced them in each case. We require knowledge as to the fact that sequels are inconstant, and, happily, form no ordinary part of the illness in the majority of cases. We are already in a position to affirm that the toxines resulting from specific organisms are the active agents in inducing certain sequels, often at distant periods from the original illness which provoked them, and we have also evidence in proof of the fact that many of the later septical complications of specific diseases are dependent on the additional invasion of micro-organisms quite indirectly related to the original disease.

TYPHUS FEVER.

Typhus fever is now happily so infrequent that we have seldom means of studying it or its consequences. I myself have seen little of this disease in the last five-and-twenty years, but I was once familiar enough with it. The sequels of this malady are neither frequent nor numerous. Thrombosis may occur, leading to cerebral embolism and to arterial plugging in the limbs, with consecutive gangrene. Endocarditis was observed by Murchison in one case, leading to splenic infarction. Thrombosis of the femoral veins is not met with nearly so frequently as in cases of enteric fever. Tuberculosis also is less common after typhus fever than after enteric fever, but the depressed nutrition of the body following typhus fever certainly predisposes to an outbreak of tuberculosis in persons constitutionally predisposed to it or who may already be the subjects of it in a quiescent condition. Murchison described a case where symptoms occurred which would now be referred to peripheral neuritis, leading to various palsies of motion and sensation and a remarkably infrequent action of the heart, which latter condition remained for many years. The paralytic symptoms disappeared and the general health was restored. Peripheral neuritis probably accounts for most of the paralytic conditions noted by the older physicians as occasional sequels of typhus fever. Muscular atrophy, leading to club-foot and other distortions, may be met with and remain for the rest of life. Mania is occasionally seen as a sequel, but is generally recovered from. Whenever symptoms of mental alienation are witnessed as sequels to acute diseases my opinion is that there is always in such cases a neurotic proclivity and an inherited mental instability which thus declares itself under the lowered vital condition of the patient. I have seldom failed to find evidence in support of this view after full inquiry into the family history. Acute nephritis has been known to occur and lead to chronic tubal nephritis, but this is exceptional. Optic neuritis is rarely met with.

Peritonitis was noted once, if not twice, by Jenner during convalescence from typhus fever, and no cause being found for it after death, such as perforation of the bowel, he regarded it as idiopathic. This is so rare a sequel that the case is very noteworthy. It occurred in a girl sixteen years of age on the fifth day after the fever had passed away, began suddenly, and was accompanied by all the symptoms indicating perforation of the bowel. Death followed in two days.

Typhus fever is a grave malady for persons of a gouty habit. Murchison never knew of recovery in such a case.[7]

RELAPSING, FAMINE, OR SPIRILLUM FEVER.

The sequels that have been noted after this disease appear to be largely dependent on the previous low health of the patients. Anæmia and feeble action of the heart have been noted, accompanied by palpitation and characteristic murmurs. Muscular and arthritic pains, partial paralyses of the deltoid muscles and those of the arms, with numbness, have been recorded as lasting for several weeks. These pass away with the full establishment of convalescence. It is not improbable that these paralytic symptoms are due to peripheral neuritis. Ophthalmia is a peculiar sequel. It has been observed to begin from three weeks to eight months after the fever has subsided. Muscæ volitantes are complained of, and luminous stars. This is described as the amaurotic stage. After an interval of weeks or months, the retina becomes inflamed, and this process generally involves the other structures of the eyeball. The conjunctivæ are little affected, but there are great pain and lachrymation. The course of this disease is tedious and the sight may be lost. One eye alone is commonly involved, chiefly the right. Two months may elapse before this ophthalmia subsides. It is rarely met with after middle life. Exposure to cold appears to be the exciting cause and the extreme debility of the patients has, no doubt, much to do with it. This peculiar trouble is not met with after typhus fever or enteric fever. Erysipelas is noted amongst sequels of relapsing fever and may prove fatal. Boils sometimes occur during convalescence. Inflammatory effusion into the joints of the knees, hands, and jaw may occur. Dysentery after convalescence has sometimes proved severe and even fatal. Pregnant women invariably abort and the child is born dead or soon dies. (Abortion is rare in typhus fever, and if it happens the child usually lives.) Severe or fatal hæmorrhage is the rule in abortion after relapsing fever. The spleen may remain enlarged during convalescence. Œdema of the lower limbs is an occasional sequel and appears to be independent of any venous thrombosis, and therefore due to debility and impoverished blood. In reviewing this series of sequels it is not at present possible to connect any of them directly with the presence of the spirochæta Obermeieri in the blood. We can hardly doubt that some of them are due to this specific bacterium in some stages of its development or dissolution, or to certain toxines produced by it. It is certain that a low level of health induced by privation and insanitary conditions directly predisposes persons so exposed to fall victims to the disease in its gravest forms.

ENTERIC FEVER.

The sequels of this disease are numerous and varied. They are now commonly recognised.[8] I will consider them in the order in which they most frequently occur.

Phlebitis is perhaps most often met with, and the left femoral vein is the commonest site of it. It is of more frequent occurrence in this disease than in typhus fever. Symptoms pointing to this condition may arise as early as in the third week of the fever, or in the fourth week. In such cases we are hardly justified in reckoning it as a sequel; rather it should be considered a complication. In a prolonged case under the care of my colleague, Dr. Church, phlebitis set in on the fifty-fifth day in both legs, and prevented the patient from rising till the sixty-ninth day of the illness. As a rule, the sequels of enteric fever are met with when convalescence is fairly well or apparently completely established. Phlebitis is certainly amongst the earliest sequels, and hardly gives rise to constitutional disturbance. The process may be accompanied with severe pain in the site of it or it may be painless. Pain may be also present or absent in phlebitis dependent on other conditions such as gout or anæmia. The duration of phlebitis varies, and the effects likewise. Complete recovery is the rule, but there may remain permanent obstruction of the affected vein with compensatory enlargements of adjacent ones, and some inability in the limb, with tendency to slight œdema for the remainder of life. There is sometimes reason to suspect that some of the pelvic veins are involved in this condition, though no very clear physical signs of it may be detectable. Suppurations do not result from post-enteric phlebitis, nor are instances on record, so far as I am aware, where any detached particles of clot have been embolically lodged elsewhere in the body, though the possibility of such an accident should not be forgotten. Paget regards the thrombosis as secondary to the inflammation of the

[7] Vide Duckworth on Gout, p. 208, 1890.

[8] *Vide* Sir J. Paget: Clinical Lectures and Essays (1875), p. 396; and Studies of Old Case Books (1891), p. 98. Dr. C. Murchison: Treatise on Continued Fevers (1873), second edition. Dr. T. W. Shore: Case of Muscular Atrophy and Gangrene of the Lung after Typhoid Fever.—St. Bartholomew's Hospital Reports, vol. xxiii., p. 109, 1887, with admirable bibliographical notes. Dr. H. Handford: Nervous Sequelæ of Infectious Disease.—Brit. Med. Jour., Sept. 21st, 1895, p. 702. Dr. W. R. Gowers: Manual of Diseases of the Nervous System, vol. ii., 1895, p. 895, second edition. Dr. W. Osler: Report on Typhoid Fever; Studies in Typhoid Fever, &c.: and Neuritis during and after Typhoid Fever.—Johns Hopkins Hospital Reports, vol. v., 1895.

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coats of the vein. Bradycardia sometimes remains after convalescence.

Arterial plugging is an occasional trouble, hardly to be reckoned as a sequel, since it is rather a late complication. The femoral artery is most often affected, and gangrene rapidly ensues. The condition is that of thrombosis and not of embolism, and in most cases a fatal result ensues. Osler records a case in which the left femoral artery was blocked on the 16th day of the fever. In a case recently under the care of my colleague, Dr. Hensley, in St. Bartholomew's Hospital, there was pain in the right foot with coldness and asphyxia, and absence of pulsation in the femoral artery on the forty-seventh day, continued fever having been present without any relapse in a young woman of twenty-one years. The heart sounds were clear but feeble, and the first one reduplicated.

Periostitis and perichondritis are sequels which may present themselves at periods long after convalescence is well established. Old fistulous openings may show signs of activity, and lead to areas of subjacent necrosed bone. Simple periostitis may occur without any necrosis of bone. The common site is the tibia. Both tibiæ may be symmetrically affected, but this is rarely the case. The disorder may occur within a month of full convalescence. I met with three examples in five years amongst my hospital in-patients. In one case, seen in private practice, three months had elapsed before this trouble came on. In another case periostitis occurred before convalescence was complete. The femur, ulna, ribs and cartilages, and the parietal bones have been noted as liable to be affected. Nodose swellings, with heat and pain, are generally first recognised. These often subside but may break down, and dead bone is to be felt with a probe. Long periods may elapse before a necrosed lamina is expelled, and tedious suppurative discharge may be expected until this separation is effected. The trouble is generally more tedious when a rib with its cartilage is involved, and a year, or even two years, may pass before all becomes quiet. The bones are not deeply involved as a rule. This sequel may occur in persons whose constitution has been, and still remains sound, and it does not appear that this condition betokens any evidence of scrofula, although when a rib is involved the likeness of the disorders to ordinary scrofulous periostitis is, according to Paget, singularly close. The latter authority has described a case in which the eleventh or twelfth rib being involved, a great abscess made its way between the abdominal muscles and had to be opened in the goin. In one case which came under my care the patient, a man aged twenty eight years, had enteric fever in August, 1892, while serving in India. Five weeks after convalescence an abscess formed near the sternum over the cartilages of the left fifth and sixth ribs. Mr. Howard Marsh undertook the surgical treatment of the case. The general health was excellent, but the local trouble proved most tedious. An abscess was found behind the rib in front of the parietal pleura. The sinuses in connexion with it, and the indurated swellings of the cartilages, were long in healing, and the parts were not fully sound till after the lapse of two months. Most bone lesions occur within two years after the original attack of fever. Deep scars usually remain. Necrosis of the ribs is met with sometimes, but is less frequent here than in the tibiæ. The periosteum may long remain inflamed. Paget records an instance where repeated attacks of pain and swelling occurred without suppuration for three years. Permanent thickening of the periosteum remained. In another case he met with a recurrence of periostitis after nine years of apparent soundness. Men suffer more than women from post-typhoid bone lesions, probably owing to exposure to injuries and strains. The cartilages of the larynx may become necrosed, also the arytenoid cartilages. The latter have been found thus involved and accompanied with an abscess in post-mortem examination, and therefore this trouble may not perhaps be regarded as a true sequel. They may lead to general emphysema. The larynx may be affected directly by a specific ulcer which is not infrequent on the vocal cords or on the epiglottis.[9]

Phlegmonous cellulitis of the orbit has been observed as a sequel, also orchitis followed by epididymitis, suppurative parotitis, ovaritis, salpingitis, and suppurative thyroiditis. Various affections of joints have been described as sequels. Chantemesse, of Paris, who has very fully studied this subject, tells of a case of hypertrophic osteo-arthritis which ensued two and a half years after an attack of enteric fever.[10] The small joints of the hand and feet and of the cervical spine may be affected. These cases are rarely seen in Great Britain. They must be distinguished from pyæmic arthritis which sometimes occurs at the end of a case of enteric fever which merges into a general pyæmia due to other microbic invasions than those of the specific bacillus of Eberth. The cases referred to here are apparently more often encountered in the United States of America, and have been described at length by Dr. W. W. Keen of Philadelphia. The larger joints are chiefly involved. Suppuration is rare but ankylosis may occur. Dislocations sometimes arise "distension luxation." Synovitis is first observed, and may arise spontaneously or occasionally from periostitis or necrosis extending into the joint. In a series of forty-three examples collected by Keen the lower extremities were affected in thirty-nine, the upper in only seven, three of the cases involving a joint in both, for, though commonly a monarticular trouble, two large joints may be affected together. Pain is noted as but slight, but Chantemesse describes nocturnal osteocopy analogous to that of syphilitic bone disorder as not uncommon in cases of periostitis, and pain in the affected joints as simulating that of rheumatism.

Marasmus is sometimes a sequel of enteric fever and may occur in various degrees, the patient never regaining his former trophic level. Anæmia is occasionally seen, but is commonly recovered from. I have known of several instances and heard of others, in which patients have declared that they enjoyed better health than they had before they suffered from this fever.

Deafness has been noted as a sequel, or, perhaps, more correctly, as a symptom, towards the end of the illness. Tinnitus aurium is not uncommon in the earlier course of the disease. Neither may be regarded as unfavourable. Mental weakness may occur, the patient becoming silly and childish after the decline of fever and remaining so for some weeks. Such intellectual failure is commonly temporary.[12]

In some cases there is an extraordinary silent inability or disability for speech. This is apt to follow when the deafness passes off. In one instance under my care a young girl, though perfectly conscious, remained silent under all conditions and often in presence of her relatives for thirty-five days. She was naturally bright and intelligent. In another case under the care of my colleague, Dr. Church, a boy of nine years old remained silent for four days. The fever was severe in both cases. Much muscular wasting occurred in mine, but perfect recovery followed. In Dr. Church's case great stupor occurred at the end of the third week, the right arm and leg were paretic, consciousness hardly returned till the fortieth day, when the patient could move his right limbs. The sphincters were unstable till the sixty-ninth day. A perfect recovery followed. Choreiform movements have been noted in association with disturbance of speech in one case.[13] Paralysis of the vocal cords has been observed. In two cases both abductors were so affected as to necessitate tracheotomy. In another case with muscular wasting and sensory disturbance one vocal cord was affected. Recovery was complete. The distinction between central and peripheral palsies is often difficult, and cannot be determined, according to Gowers, by noting the presence of pains in the limbs and the existence of tenderness in the muscles. The condition of silence just referred to is not to be explained but is almost certainly due to exhaustion of cortical areas, to enfeebled circulation of impoverished blood, or perchance, to direct and specific fever poison. Permanent mental derangement with delusions may supervene upon apparent recovery, also melancholia.[14] These cases are generally recovered from, but evidences of more or less intellectual enfeeblement and defect of memory may persist for many months, or even permanently, after a severe attack of enteric fever.

[9] Such cases are well described and discussed in the Toner Lectures (Lecture v., vol. xv., of Smithsonian Miscellaneous Collections) by W. W. Keen, M.D. of Philadelphia, February, 1876. Washington, 1878. *Vide* also remarks by Dr. Church, in the St. Bartholomew's Hospital Reports, vol. xvii., 1891, p. 104. These cases appear to be less common in Great Britain than in France and the United States.

[10] Société Médicale des Hôpitaux, Juillet.

[11] Op. cit., p. 3.

[12] On Some of the Nervous Phenomena of Typhoid F. W. Andrewes. St. Bartholomew's Hospital Reports, 1889.

[13] De la Harpe: quoted by Gowers. An interesting review of the theory held by myself and others that matism of the brain, specially involving the cortex. Vi Nature of Chorea, THE LANCET, April 7th, 1894.

[14] Osler records three cases as having occurred in

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Minute changes have been met with in the brain of the nature of small inflammatory foci. Recent researches plainly indicate that the spinal cord may suffer from residual disorders after infectious fevers and especially after enteric fever. Dr. Handford has described a case of general muscular wasting in a boy aged eleven years, the limbs and trunk being especially affected. The knee-jerks were absent, but the other reflexes remained. Enteric fever occurred at the age of five years, and there was inability to walk for two months after convalescence was established. The arms became enfeebled after the legs. At the age of nine years scarlet fever occurred, and the muscular wasting made subsequent rapid progress. There were no electrical indications of any qualitative change in the muscles, and the condition was apparently one of anterior poliomyelitis. This affection is believed by Gowers to follow upon enteric fever more frequently than after any other of the infectious diseases. Disseminated patches of sclerosis of the cord have been found by Ebstein. Leyden has placed the nervous sequels of this fever in three categories. 1. Paralyses of single muscles or groups of muscles supplied by one nerve, including cases resembling post-diphtheritic paralysis, facial palsy, strabismus, disturbances of accommodation and palatal palsy, atrophic paralysis, with neuralgic pain and diminished electrical reactions, paralysis of the radial and ulnar nerves, and other varieties. These are regarded by Leyden as peripheral neuritic disorders and not of central origin. My colleague, Dr. Shore, has, however, described a very important case in which localised muscular atrophy occurred which was proved to be due to subacute myelitis of the grey matter of the anterior cornua, involving the origins of the fifth, sixth, and seventh cervical nerves. The patient, a woman aged twenty-six years, suffered from loss of power first in the right and later in the left hand and arm three weeks after leaving the hospital convalescent from enteric fever. The extensor muscles of the forearms were wasted and there was double wrist-drop. There were no sensory symptoms. No other paralyses were discovered. Death occurred in two weeks from pulmonary gangrene and pyo-pneumothorax, and this latter complication was believed to be due to trophic disturbance arising from the spinal lesion, no other cause for it being found. 2. Paralyses of a spinal type, including paresis of the lower limbs, without atrophy and sensory symptoms; paresis with hyperæsthesia and rigidities, due to myelitis or meningo-myelitis; acute ascending paralysis (Landry); progressive muscular atrophy; and acute ataxia with affections of speech and incoördination. 3. Affections of a cerebral type: psychoses, mania, melancholia, hemiplegia with aphasia, and with optic atrophy.

Osler groups neuritis as an accompaniment or sequel of enteric fever under two heads—(*a*) local neuritis, and (*b*) widespread, diffuse, or multiple neuritis.[15] Doubt has lately been thrown upon the nature of some of the neuritic sequels of enteric fever which so closely resemble post-diphtheritic palsies, since it has been suggested that they are not improbably due to a concurrent but unrecognised specific diphtheria. Murchison described a case in which this concurrence was met with. Palatine paralysis should perhaps be regarded as a symptom suggestive of this combination, but it may, however, occur, together with general muscular weakness, after enteric fever. According to Gowers there is never the loss of accommodation or the slow progress of palsy from one part to another that is significant of diphtheria. Gubler, however, has recorded an example which, according to Bury, is unique, where paresis of the palate occurred with nasal twang of voice and paralysis of ocular accommodation. Amongst the varieties of local neuritis tenderness of the toes has been described by Handford and Osler, the pain being severe and the weight of the bedclothes unsupportable. The ulnar nerve is particularly apt to suffer. The cranial nerves may be involved, especially the third and seventh branches. Optic neuritis is very rarely met with as a sequel. Enteric fever is probably followed by neuritis more often than any other infectious fever, with the exception probably of diphtheria and influenza. From a study of many cases Bury remarks that the resulting paralyses are usually partial in extent and degree, that the muscles affected are both wasted and weak, and that the paralysis is almost invariably preceded or accompanied by some form of sensory disturbance. The muscular tremors which occur in severe cases of enteric fever may continue and be followed by symptoms of disseminated spinal sclerosis, but not by paralysis agitans. Tetany has been met with during the fever and in convalescence after some epidemics. A condition described as "the typhoid spine" by Gibney of New York and by Osler is met with sometimes late in convalescence, which may confine the patient to bed for weeks. It is characterised by pains in the back, hips, and abdomen, shooting and paroxysmal, elicited by slight movements. It is sometimes associated with general debility, but not always. No evidence of spinal disease has been detected, though periostitis and spondylitis have been suggested as possible causes. Osler believes that the disorder is purely neurotic. In his special report[16] on neuritis during and after typhoid fever he mentions having met with five cases of local neuritis amongst 390 patients. In two of these the disorder developed during the height of the fever. In the third case neuritis occurred when convalescence had been established for ten days. In the fourth case neuritis began after five weeks' illness, as the pyrexia declined. In the fifth case the disorder came on late in a tardy convalescence. In four examples of multiple neuritis, also recorded by Osler in his report, the disorder came on either late in the course of the fever or somewhat early in the convalescence.

Paraplegia of considerable severity, though not complete, has been noted, accompanied with spinal tenderness, hyperæsthesia, and sensory disturbance in the legs. It may pass off in the course of a few weeks, and is believed to be dependent on a slight degree of diffused myelitis. Increased knee-jerk and foot-clonus existed in one case seen by Gowers some months after the fever. Symptoms of more acute and rapidly spreading paralysis may sometimes supervene and lead to a fatal issue in the course of a few days. Hemiplegia is very rarely met with, but two causes have been recorded of right-sided disorder with aphasia, and in one of them optic atrophy followed.

Pleural effusions of all varieties may occur, but are not frequent. Empyema has been met with.[17] Dr. Hale White has recorded two cases in which pyo-pneumothorax was a sequel. The fever was protracted in each case. The lung gave way in both patients while straining at stool. One of these proved fatal. The other made a good recovery.[18] This accident may be explained by the softening of the pleura due to suppuration, or by the occurrence of rupture of a pulmonary abscess due to the fever or to a mixed infection supervening later.

One of the most curious sequels I have met with was linear atrophy of the skin, with extreme hyperæsthesia of adjacent parts, in a young and vigorous man. This began three months after a severe attack of enteric fever. Parallel stripes of discoloured skin were found on the outer side of the left thigh, depressed and showing perfect characters of the well-known lineæ atrophicæ or "lineæ gravidarum." This condition was evidently due to a neuritis involving both sensory and trophic fibres of a specific (typhoidal) character. Six months later I learned that the pains had much subsided and the colour of the stripes was fading, but recovery was not complete. I have found reference to several other similar cases as having been met with in this country, in France, in Germany, and in Canada.[19]

Typhlitis is certainly not generally recognised as a sequel of enteric fever, but Barling has recorded an instance in which the vermiform appendix was involved in ulceration leading to stenosis. He believes that this resulted from an attack of enteric fever which had occurred five years previously.[20] The connexion is, I think, at least doubtful, and I have never read of or met with a similar example.

Gangrene of the lung has been already mentioned as an early sequel in the remarkable case recorded by Dr. Shore. The history of that case plainly indicated that this condition was due to neuro-trophic disturbance. Sir William Jenner met with two examples after typhus fever, but with none after enteric fever. Murchison considered it a rare event, but had met with one or two instances. Probably in the majority of cases this condition may be regarded as a complication rather than as a sequel. In Dr. Shore's case the occurrence was clearly an early sequel.

[15] Johns Hopkins Hospital Reports, vol. v., 1896.

[16] Ibid., vol. v., 1895.

[17] Weintraund, Berliner Klinische Wochenschrift, Jahr. xxx., No. 13, p. 346.

[18] Proceedings of the Clinical Society, THE LANCET, Feb. 22nd, 1896.

[19] Vide British Journal of Dermatology, No. 62, vol. v, where I have recorded my case at length.

[20] Brit. Med. Jour., May, 1895, p. 1135.

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A crop of boils is recorded as a sequel, causing post-typhoidal pyrexia in a case under the care of Dr. Osler.[21]

Enuresis, even of long duration, has been known to be temporarily cured after the occurrence of enteric fever.[22]

It appears certain that during convalescence there may be recurrences of pyrexia which simulate, but are not truly relapses of, enteric fever. Putting aside such causes as may disturb any convalescent—such as emotion, constipation, &c.—and cause temporary pyrexia, also such recognised sequels as periostitis, necrosis of bone, suppurative arthritis, pyæmia, erysipelas, phlebitis, and suppurative otitis media, we may note, according to Osler, a continued fever, lasting two or three weeks, apparently due to the profound anæmia which follows enterica. The temperature may range from 99° to 101° F. Thus in one case, in which normal temperature prevailed for four days after convalescence there followed a febrile period extending over sixteen days. The red globules were reduced by one-third. The fever subsided as the blood state improved, but ten weeks elapsed before the normal condition of the blood was attained. In another class of cases, two or three weeks after convalescence a rigor may supervene and a temperature of 104° or 105° F. occur on four or five occasions daily, or with intervals of a day or two of normal temperature, or of slight continued fever, and this for a period varying from two to sixteen days. No plain indications of the cause of this condition may be manifested, but it may be surmised that septic absorption has occurred from intestinal ulcers, or from a purulent focus in the spleen, or a mesenteric gland. In two of Osler's cases in this series numerous miliary abscesses were found in the kidneys, and in one of these typhoid bacilli were found and no other microbes. In other cases Eberth's bacilli were discovered in the kidneys together with other microbes—viz., the bacillus coli and the streptococcus. Sterilised cultures of the typhoid bacillus were found to produce nephritis in animals. The fact of ulceration of the bowels in enteric fever allows a ready entry into the system of specific bacilli, and Konjajoff has frequently found them in cases where albuminuria occurs in this fever. The kidneys appear to be one of the channels through which bacilli pass out of the body.

Having now considered the many and varied sequels which have been met with after enteric fever we may seek next for a rational explanation of them. If we can discover this we may fairly hope to find the clue to a settlement of the question, not only in respect of this particular fever, but of that which presses for solution in the case of all the specific infectious fevers and diseases. Modern bacteriological research leads us to regard it as highly probable, if not actually certain, that the toxines generated by the bacilli, specific in each case, are the active agents by which most of the sequels are induced in such instances. We have seen that many sequels may fairly be attributed to the extreme debility and exhaustion entailed by the acute manifestations of the disease. It suffices to examine with care the several viscera in fatal cases to be assured of the damage suffered in vital organs, which is to be fairly set down to pyrexia alone. The softening of the cardiac walls, the shrinkage of the liver induced by atrophy and molecular degeneration, the condition recognised as "cloudy swelling" of this viscus witnessed on section, and the like state of the kidneys, all point to grave trophic disturbance with inadequacy of metabolic, secreting, and other functions. Although these changes are most obvious in the organs just mentioned, we may feel sure that they exist in all the textures of the body, and must during life have been potent for evil. Similar acute degenerations occur, without doubt, though in lesser degree, in non-fatal cases, and we may cease to wonder at the low health, tardy recovery, and long failure to reach the normal level of health in these cases.[23] That special organs or areas of tissue should suffer more in some cases than in others is probably to be explained by inherent and personal weakness, since we know that such visceral weakness and textural defects are hereditary, and we may thus account for many varieties of ailments and peculiarities met with in patients. Acute illness tes the integrity and functional adequacy of such parts, a they break down under the ordeal, revealing to us one another failure as a sequel. We may thus speak of speci and non-specific sequels. In the former case we have reckon with localised residues of the primal disease, ma fested by invasion of parcels of toxine-generating baci working out their malign effects. Actual proof of thi not far to seek. It has been shown that such definite local invasions occur and fully account for the sequels. the case of enteric fever we have the researches of Cha messe and Widal[24] showing the presence of bacilli in alı every tissue thus affected. These authorities affirm fidently that they have found the true bacillus of Eb My friend and colleague Dr. Kanthack, however, inf me that these and other observers in France had sufficiently learned to distinguish the bacillus coli Eberth's bacillus at the time they wrote, and that thus doubt must still exist as to these particular researches Osler's case, already quoted, no such doubt can be tained. Sultan and Burchke discovered, in one cas years after an attack of enteric fever and in another years after, living bacilli in abscesses of bone.[25] It i proved that these bacilli are very tenacious of life o the body and can exist in a potato culture for at lea years. Some of the sequels in enteric fever are not s but certainly due to invasion by other than the bacilli, to the ordinary microbes inducing suppuratio as streptococcus, staphylococcus pyogenes aureus, and bacillus coli communis. These may be classed as cæmic or pyæmic sequels, due to secondary invasion vening, embolically or otherwise, on the specific fe way of venous or lymphatic channels, from purulen the intestines, mesenteric glands, or spleen. Sc records a case where the staphylococcus aureus had latent in a bone for over thirty-five years.[26] Splenic ment is not always a simple matter. Rupture may slight provocation and has been known to occ spontaneously.

[21] Johns Hopkins Hospital Reports on Typhoid Fever, No. 1. vol. iv., 1894.

[22] Church: St. Bartholomew's Hospital Reports, vol. xvii., 1881, p. 107. Trousseau: Clinical Medicine, Sydenham Society's Translations, vol. iii., p. 405.

[23] According to the late Professor Aitken of Netley, no patient having suffered severely from enteric fever is fit to resume active or laborious duties for three or four months subsequently. In many severe cases the patient has almost to be created anew before sound health is established, and a year not seldom elapses before this occurs, even under favourable conditions.

[24] Société des Hopitaux, Mars. 1890.

[25] Quoted by Dr. Washbourn, Proceedings of the Royal M Chirurgical Society, November, 1895. Vide also Report Parsons of Baltimore (Annals of Surgery, November, 1895).

[26] On Traumatic Infection: Lockwood, Hunterian Lectu College of Surgeons of England, 1895, p. 42.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—A of the Scottish division of this association was h hall of the Faculty of Physicians and Surgeons on the 12th inst., Dr. T. W. McDowall of umberland County Asylum being in the chair. Dr Marr, assistant physician, Lenzie Asylum, and D assistant physician, Inverness Asylum, were elect of the association. The following papers were r in each case to considerable discussion:—Certain of the Circulatory System in the Insane, by D Melrose Asylum; A Case of Mental Stupor, w after six years' duration, by Dr. Hotchkis Asylum; Forms for Case-taking and for ot Records, by Dr. Urquhart, Murray Asylum; an Lunatics and the Legal Provisions for Dealing w Mr. Carswell, Glasgow.

THE NEW ISLE OF WIGHT ASYLUM annual meeting of the county council of the Isl was reported that the new asylum now being island would be ready to receive at least some c about the middle of May. A clerk and storek chief female officer (? matron) have been se number of applicants. Plans of farm building be erected in connexion with the institution h before the Commissioners in Lunacy. It will memory of our readers that of the 1072 patient within the wards at the Hants County Asyl 72 males and 112 females belong to the island, report of the Hants authorities anticipated siderable interest the relief which would be a wards by the completion of the separate b island. Meanwhile, a difficulty has arisen a payment by the island for these patients, Government Board has been asked to arbitra The cost of furnishing the new building is p a further £6000 will probably be required fo is still proposed to erect.

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The Goulstonian Lectures

ON

THE LIFE-HISTORY OF THE MALARIA GERM OUTSIDE THE HUMAN BODY.

Delivered before the Royal College of Physicians of London

BY PATRICK MANSON, M.D. ABERD., F.R.C.P. LOND.,

PHYSICIAN TO THE SEAMEN'S HOSPITAL, ALBERT DOCKS; LECTURER ON TROPICAL DISEASES AT ST. GEORGE'S HOSPITAL AND CHARING-CROSS HOSPITAL.

LECTURE III.[1]

Delivered on March 17th, 1896.

MR. PRESIDENT AND GENTLEMEN,—When some time ago I had formulated the theory enunciated in my last lecture there was little prospect of my being able personally to put it to the test of further observation and experiment, and as neither Laveran nor Mannaberg had connected the mosquito with the flagellum, and Calandruccio had failed to observe developmental changes in malarial parasites ingested by mosquitos, I hardly ventured to hope that my views would so soon receive the support which has been given to them.

SURGEON-MAJOR ROSS'S INVESTIGATIONS.

Surgeon-Major Ronald Ross, to whom I have already referred, was in England last winter, and, being favourably impressed with the mosquito hypothesis, determined to work it out on his return to India. After much discussion we fixed on a certain line of experiment and observation which my experience in former years in filaria work seemed to indicate as being likely to lead to some definite result one way or other. Those forms of malaria in which the crescent body is a prominent feature are the most suitable for experiment, at all events to commence with, for of all the forms of the plasmodium the crescent is the most definite, the most readily recognised in the blood, and the easiest to work with, much more so than the potential flagella-forming intra-corpuscular parasite of the quartan and benign tertian infections. We concluded that when the mosquito ingested the crescent plasmodium one of three things must happen: (*a*) either the crescent would be killed and digested without exhibiting any evolutional change; or (*b*) it would behave very much as crescents do on the microscope slide—that is, a large proportion of them would remain crescents and a certain proportion of them would become ovals and spheres, and a very small proportion of them would go on to flagellation; or (*c*) a very large proportion of the crescents ingested would proceed to flagellation, the flagella subsequently becoming free. We concluded that if the first turned out to be the case, then this mosquito hypothesis was wrong; if the second, that it was at best doubtful; and if the last, that it was probably correct, or, at all events, that it was worth pursuing further. On his return to India in April of last year Surgeon-Major Ross was stationed at Secunderabad, in the Deccan, where malaria is common enough. After some searching among his hospital patients he found a complacent native, one Abdul Kadir, a sepoy, who was suffering from malarial cachexia, and in whose blood the crescent form of the plasmodium abounded; several crescents could be found in nearly every field of the microscope. Surgeon-Major Ross placed this man under a mosquito net, introduced mosquitos which he had previously reared from the egg, and then collected the insects after they had filled themselves with the patient's blood. He then made systematic examinations at short serial intervals of the blood in the malariated mosquitos' stomachs, being careful at the same time to compare the results so obtained with control slides of finger blood prepared at corresponding times from the same patient. As a result of a prolonged study of the subject Surgeon-Major Ross found that, so far from being killed and digested by the stomach of the mosquito, with the exception of an insignificant proportion, all the ingested crescents rapidly proceeded in development; almost all became spheres, and at least 40 or 50 per cent. of them proceeded to flagellation and liberation of flagella; that is to say, the crescent conducted itself in the mosquito's stomach very much as the filaria does, and exactly as if it had got into a proper medium for development. In explanation of some of the terms employed I may mention that the expressions "spent spheres" and "pigment bodies" refer to the more or less passive spherical pieces of pigmented plasmodial protoplasm which remain after the flagella have broken away from what I may call the mother sphere; these pieces of protoplasm represent the discarded body of the flagellated organism, and, biologically, may be regarded as residual matter left after sporulation. In a letter dated May 25th, 1895, Surgeon-Major Ross says:—

"The result was my first perfect specimen of mosquito blood. About twenty minutes had elapsed since the mosquito had begun sucking; the hæmoglobin had commenced to diffuse. The blood swarmed with perfect spherules, not very large, about 6 microns (= 0·006 mm.) in diameter, but showing an almost eruptive movement of pigment, as if flagella were about to burst forth in a moment. I looked in vain, however, for flagellates; to my surprise not one was to be seen. In a very few minutes the pigment oscillation, the intensity of which was much greater than in the control specimens, began to quiet down. Many of the spheres were shaking, but, as I have said, not one was flagellate. The general view, however, was very different from an ordinary specimen. All the spheres had perfect circular contours, and I now noticed that they seemed to be in much larger numbers than in finger blood, contrary to my first impression. Here are my notes of the number of spheres mostly in thin fields: 7, 3, 9, 7, 1, 2, 3, 2, 2, 6, 2, 2, 1, equal to an average of 3 per field. The fields were consecutive. The numbers will give you some idea of the quantities of parasites. I made a specimen of a second mosquito at three-quarters of an hour after beginning to suck, and the results were precisely the same. On counting the numbers of crescent spheres and pigment masses respectively I obtained: First specimen: 7 crescents, 80 spheres, 8 pigment masses; second specimen, 14 crescents, 30 spheres, 9 pigment masses. On counting the second specimen next day I found 0 crescents, 8 spheres, and 32 pigmented masses. In both specimens the number of crescents appears a great deal too favourable, as it was possible to examine field after field without finding one. Next day I began with a finger-blood specimen, which gave, when fresh, crescents and ovals 39, spheres 10, pigment masses 1. Then I made two more mosquito specimens at about half an hour, my 18th and 19th mosquitos. Up to date I had observed only two flagellate bodies, both in finger blood. I was astonished I had not met with more. Always the spheres seemed ripe for flagella, but they did not come. The temperature of the air was 95° F. Now directly I looked at mosquito 18 I saw flagellated organisms in every field. I saw 9 altogether in a few minutes, but instead of counting them I wasted my time looking at them. Two fields held 2 each, and I could have found numbers, I do not doubt, if I had looked at once over the specimen. As it was the spectacle afforded by mosquito 18 was amazing. All the spherules seemed bursting with excitement and were exceedingly numerous. I noticed in contiguous fields 6, 10, 8, 7, 10, 14, 12, 16, an average of 10 a field; but when I came to examine special fields I found 60 in one field, 72 in the next, all endeavouring and ready to burst. I think you will confess that no one has had such an experience as this in finger-blood. On looking through mosquito 19 I found the same swarm of spheres but no flagellate organisms. Next day I began with mosquito 20, fed the day before. I found mostly pigment masses, but about 20 per cent. of the parasites were still cellular—that is, spheres. I made a specimen of a fresh mosquito—No. 21—at half an hour from feeding, with a presentiment of what I was going to see: 4 flagellates and 20 spheres in the first field, 5 flagellates and 12 spheres in the second field, and 3 flagellates and 10 spheres in the third field. Flagellate organisms everywhere; one, or two, or more in every field. I must have seen over 30 or 40, though I examined only a few fields, being hardly able to tear myself away from individual organisms. The flagella were excessively fine, quite invisible in open spaces, but visible in hæmoglobinous serum. The flagellated organisms were unmistakable, because they were being dragged about all over the field generally, or were quivering and being shaken as a dog shakes a rat. The 'manifestation' nearly ceased in a few minutes, though I saw flagellates for half an hour afterwards. Mosquitos 22 and 23, at seventy and ninety minutes, gave no flagellates and but few parasites comparatively. The patient was put under the net again. Mosquito 24 gave the same results at half an hour as mosquito 21. Five flagellates in one field of 12 parasites. Flagellate organisms everywhere, especially in open parts. The 'manifestation' lasted in its intensity only for about five minutes."

SURGEON-MAJOR ROSS'S CONCLUSIONS.

Surgeon-Major Ross continued to experiment with mosquitos going over the ground again, and again generally obtaining similar results. Writing on May 28th he says:—

"The progress of things, then, is this: 1. Almost all the crescents are converted into spheres very shortly after they enter the mosquito's stomach. Sometimes a fair number of crescents may be found at ten, fifteen, twenty, or more minutes, but these are almost always seen in the same part of the specimen, and, therefore, belong probably to the last intake of blood. It is very rare to find more than one or two crescents in an entire preparation of mosquito blood made at longer intervals. Ovals are not often seen. Untransformed crescents are, I believe, aborted ones. 2. The spheres are always found. They have a perfect contour, and contain a clear material, which distinguishes them markedly from the masses of corpuscles in the midst of which they are generally found. At first the pigment is clustered together; then the outermost pigment particles begin to oscillate; lastly, all pigment particles commence swarming, while the whole cell may take on a slight jerking movement. 3. Flagellate organisms may be found at from seven to thirty-five minutes or more. When seen they lie almost always in great numbers

[1] Lectures I. and II. were delivered on March 10th and 12th and were published in THE LANCET of March 14th and 21st respectively.

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in contiguous fields, suggesting that they belong to the same intake of blood and have ripened at the same time. So far as I have experienced, they are always found within a minute or two of the lens being brought to a focus. The whole 'manifestation' ceases in a very few minutes. Owing to this circumstance, and probably owing to the process of making the specimen causing the flagella to break away, the flagellated organisms are sometimes not to be found. 4. The spent spheres or pigment masses may sometimes be seen very early—even at eight minutes, but then are few in number. Their number steadily increases, almost without fail, in successive mosquitos of the same batch as regards time of feeding until, as in mosquito 39, they may reach 60 per cent. of all parasites not enclosed in phagocytes. Their appearance is quite characteristic, simply because they are not inclosed in the clear, well-defined cells of the spheres. They are easily seen to be mere dead clusters of pigment—sometimes with very feeble oscillations. They may be in masses, rings, or drawn-out clusters. Their absence in the blood of the earlier killed mosquito and their large numbers in the blood of the later killed show conclusively that they are due to a progressive metamorphosis inside the mosquito and not to crushing in making the specimen. 5. Phagocytes containing spheres and pigment begin to be seen later than the spent pigment (at about twenty minutes or so), and increase in number up to about two hours. 6. About 30 or 40 per cent. of the parasites fail to throw out flagella and remain as spheres. The above developments may be shortly stated in two sentences:—(*a*) Practically all crescents become spheres a few minutes after being taken into the mosquito's stomach. (*b*) From 30 to 40 per cent. of the spheres die after one or two hours, the rest having given out flagella, been eaten by phagocytes, or having simply broken up."

These conclusions, Surgeon-Major Ross informs me, were borne out by a number of similar experiments on three other patients having crescent parasites in their blood. In these cases, too, the evolution of the flagellated form occurred as in Abdul Kadir, so that there can be little doubt that the conclusions founded on the Abdul Kadir experiments apply equally to the crescent parasite in every case.

EFFECT OF QUININE ON THE EVOLUTION OF THE FLAGELLATED BODY IN BLOOD AND IN THE MOSQUITO.

I may mention a curious circumstance in connexion with Abdul Kadir's crescents which gives, perhaps, a certain amount of additional support to the claim the mosquito has to be regarded as a suitable nurse for the plasmodium. After a number of days the patient began to be feverish and it was evident that an attack of acute malaria was impending. Not feeling justified in exposing the man to what might prove to be a serious illness Surgeon-Major Ross administered some doses of quinine, and at the same time continued his mosquito observations. The effect of the drug on the parasite was curious. Hitherto a certain proportion of the crescents in finger-blood underwent evolutional change into oval, spherical, and, in a very few instances, into flagellated bodies; but, after the administration of quinine, the crescents in finger-blood remained crescents in every instance. Apparently the drug had at least impaired their vital energies if it had not killed them outright. But when the crescents which had been swallowed by the mosquito in the cinchonised blood were examined it was found that the usual evolution into sphere and flagellated body took place as before, only with this difference, it was delayed for about a quarter of an hour beyond the usual time. This would seem to show that the conditions afforded by the mosquito's stomach are so favourable to the evolution of the crescent that they can with time overcome the paralysing influence of quinine on the plasmodium. Surgeon-Major Ross had commenced the difficult task of following up the flagellum to its destination in the tissues of the mosquito, when, unfortunately, official duties called him away from Secunderabad and forced him to suspend his work on malaria.

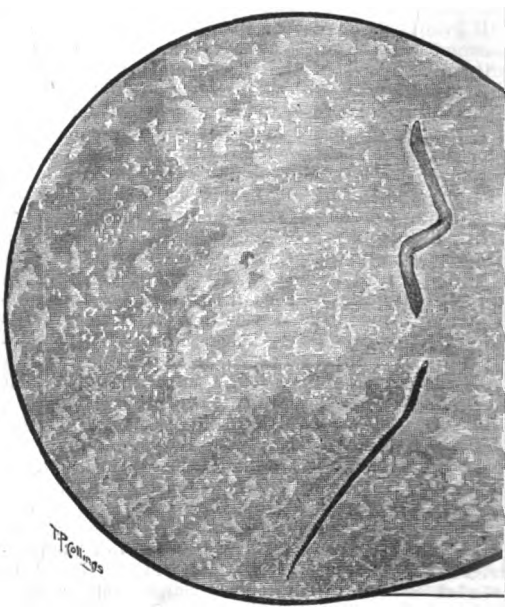
EXPERIMENTS ON COMMUNICATION OF MALARIA TO MAN BY MOSQUITO WATER.

In the course of his investigations Surgeon-Major Ross received much encouragement from an experiment he performed. After due explanation he administered to a healthy native the drachm or two of water in which a couple of malarialised mosquitos had died after depositing their eggs. The remains of the insects had been removed, but the eggs and some mosquito grubs which had just been hatched out from some of the eggs were swallowed. Eleven days (the incubation period in experimental malaria, be it noted) after this peculiar draught the man got an attack of fever characterised by headache, rise of temperature to 103°F., lassitude, and so forth, but no rigor. The fever lasted three days and then subsided spontaneously. In the blood a considerable number of the ring form of the plasmodium were found; but although many examinations were made during the next week or two no crescent form appeared nor was there any relapse. Nothwithstanding the absence of crescents and of relapse and the spontaneous subsidence of the fever, which, clinically, was of the æstivo-autumnal type usually associated with crescents, there can be little doubt that this was a case of malarial disease. Whether it was the result of the mosquito water, or whether its occurrence eleven days after the administration of this was simply a coincidence, it is impossible to say. Surgeon-Major Ross repeated the experiment in several other natives, but he did not again succeed in producing malarial fever of an unequivocal character.

SUGGESTIONS FOR FURTHER INVESTIGATIONS.

Surgeon-Major Ross has proved by observation the correctness of my conjecture that the stomach of the mosquito is a suitable medium for the flagellated phase of the plasmodium malariæ to develop in; and it behoves us, starting where he left off, to trace the progress and fate of the flagellum. The first thing we have to do is to find out where the flagellum goes after it has been set free in the blood of the mosquito's stomach, and this is only possible by systematic observation from hour to hour and day to day. When working out the life-history of the filaria in the mosquito the relatively enormous size of this parasite made the task of tracing it a comparatively easy one, even with the imperfect appliances I had at my disposal. With modern methods of section the task would have been still easier. I find that if a filariated mosquito is plunged into some hardening medium a few hours after it has fed, and in due course embedded, sectioned, and stained, it is a very easy matter to trace the filaria in its progress from the abdomen of the insect into the thoracic muscles, and through its subsequent metamorphosis. The preparations represented by Figs. 18 and 19 were made in this way. Fig. 18 represents a somewhat oblique section of a filaria which is still lying in the blood of the abdomen of the mosquito. It has evidently just succeeded in escaping from its sheath, part of which can be seen lying empty

FIG. 18.



A somewhat oblique section of a filaria in the stomach wall. The darker object is the filaria; it has just escaped from the more lightly shaded object lying above the filaria.

distance behind it. Fig. 19 represents a longitudinal section of the thoracic muscles of the same mosquito in which the filaria can be made out. One is still *in situ* and lies among the muscular fibres between which it has been boring its way; the other, which when the section was made occupied a similar position, has been partially thrust out of its bed by the stroke of the section knife. In similar preparations it is easy to read the story of its progress in the mosquito. Now I would suggest that the movements of the flagellum might be made out and demonstrated in the same way. Malariated mosquitos, after being

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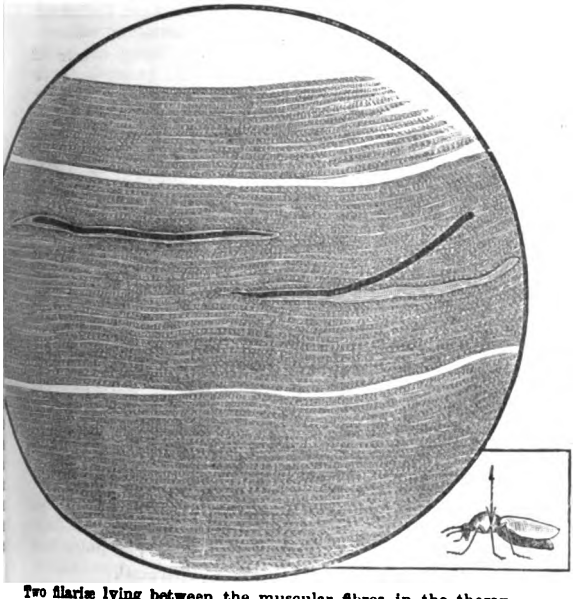
serial intervals from the time of feeding into half per cent. osmic acid for a minute or two, might be hardened in formalin or some other suitable agent and then sectioned and stained in different ways. I can conceive that in insects so prepared the shower of flagella, emitted about half an hour after feeding, might be traced in the blood in the abdomen, a more or less continuous stream setting in towards the particular cells in which, as I have explained, the

FIG. 19.



Two filariæ lying between the muscular fibres in the thorax of the mosquito.

flagellum seeks to bury itself and which we are in search of. Some of the flagella would perhaps be caught in the act of entering; and some of them, perhaps, might be seen already coiled up in the interior of these cells. This particular cell once discovered the remainder of the task would be easy enough.

SURGEON-MAJOR ROSS'S PREPARATIONS.

Simple expression of the viscera of the mosquito, and groping about in their contents, will not suffice to discover

FIG. 20.

the plasmodium after the stage of free flagellum has passed. In preparations which Surgeon-Major Ross sent me last year I have been able to follow, to some extent, the transmutations he describes. The bodies represented in Fig. 20 were drawn from such preparations, and, so far as they go, they unmistakably bear out his statements. They are sufficiently confirmatory to warrant us in placing implicit reliance on the description he gives of the phenomenon of ex-flagellation in the mosquito. The flagella are structures so delicate and so difficult to stain that the rude preparations these drawings were made from cannot be expected to show them. Short of this, however, they are convincing. The upper figures, representing the crescent bodies, are from a mosquito killed five minutes after it had fed. One can easily pick out in the preparation every variety of developmental form, from crescent to ellipsoid. The two lower figures are from a preparation made thirty minutes after the mosquito had fed. In it we can make out here and there forms belonging to the flagellated organism, to the spent spheres, and to the pigment masses. The pigment they contain suffices to establish the plasmodial nature of the bodies in which it lies.

[Dr. Manson here enumerated the more debatable points of his argument. He continued:—]

OBJECTIONS TO THE MOSQUITO THEORY.

Until malarial disease is communicated by the administration of plasmodial forms that have been passed through the mosquito, until the theory is proved up to the hilt, it is probable that various objections will be raised. For instance, there are many places in the world where, though mosquitos abound, malaria is rare; and, again, there are certain places on the west coast of Africa and elsewhere where malaria is notoriously prevalent although mosquitos are absent; but the most serious difficulty in the mosquito theory is the fact that as yet we have not been able to trace the flagellum into the tissues of the mosquito. The reasons for this I believe to be the delicacy and minuteness of the object, the complicated character and abundance of cell forms, with which we are as yet very imperfectly acquainted, in the mosquito, and our ignorance of a suitable technique. Until the flagellum has been traced into some cell in the mosquito it is possible that I may have been misled by the marvellous analogy between the requirements and structure of the plasmodium and those of the filaria, and by the apparent suitability of the structure and habits of the flagellated plasmodium and the flagellum to the conditions they encounter in the mosquito. It is just possible that the invariableness with which the metamorphosis of the crescent is effected in the mosquito, the certainty with which "the manifestation" of flagellation occurs in from twenty to thirty minutes after ingestion of malarial blood by the mosquito, are mere coincidences. One may say, the phagocytes live for a time in the mosquito, why not the flagellated body? It can live on the microscope slide, why should it not live in the mosquito's stomach? While acknowledging that these are points requiring further investigation I do not recognise in them grave arguments against the validity of my theory, and I hold that Surgeon-Major Ross's investigations have rendered it so probable that I look confidently to him and to other workers in India and elsewhere to forge the links that are still wanting to complete the chain of evidence.

THE OPERATION FOR STRANGULATED INGUINAL HERNIA CONSIDERED IN RELATION TO RECENT ADVANCES IN SURGERY.

BY C. B. LOCKWOOD, F.R.C.S. ENG.,
ASSISTANT SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, AND SURGEON TO THE GREAT NORTHERN CENTRAL HOSPITAL.

DURING the last few years when called upon to operate for strangulated inguinal hernia I have performed an operation which differs in many ways from that which used to be done. It is highly probable that other surgeons follow exactly the same course as that which I am about to describe, but even such modern works upon operative surgery as those of Mr. Jacobson and Mr. Treves illustrate the operation for strangulated inguinal hernia with figures which go back to Fergusson and describe an operation unlike the following. Briefly defined it is simply the operation for the radical cure of inguinal hernia, but differs in that the contents of the sac are strangulated. The objects aimed at are not only to relieve the strangulation but also to cure the hernia, or, at least in older people, to make it amenable to a light truss.

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Perhaps it may be as well to take the operation step by step, omitting such details as are adequately dealt with in text-books; and, first, it will be observed that no special instruments whatever are needed except a pair of suitably curved blunt needles for transfixing the sac or omentum, if any of the latter has to be removed, and for restoring the inguinal canal. A well-made pair of blunt needles adds much to the ease and safety of those steps of the operation. Messrs. Arnold have made for me some which both myself and others prefer to Professor Macewen's original model. Their curve is rather less and shorter; the metal in the curved part is distributed so as to make them more rigid, and the hole is made much easier for threading by making it run across the point of the needle, so that it can be threaded from right to left (Fig. 1). The other instruments required are a scalpel, scissors, dissecting forceps, eight or nine pressure forceps, a straight and curved Hagedorn's needle, together with some sterilised silk and fishing-gut. A director and herniotomy knife are not required because the neck of the sac is divided from the outside. Perhaps I may add that the same instruments are used for the operation for strangulated umbilical hernia. A broad-grooved director and herniotomy knife are still necessary for the operation upon strangulated femoral hernia.

FIG. 1.

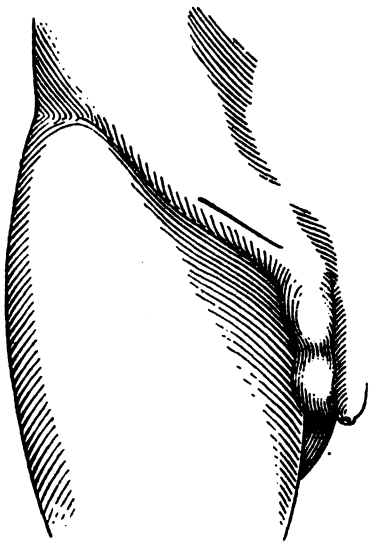
Assuming that the field of operation has been properly prepared by the complete removal of hair, by scrubbing and washing, by the extraction of the cutaneous fat with turpentine or ether, and by disinfection with a strong chemical such as one part of biniodide of mercury in 500 parts of spirit, and by a girdle of disinfected towels, the skin incision is made as follows. Instead of cutting down upon the hernial sac in the scrotum, as is shown in Fergusson's figure already alluded to (Fig. 2), an incision is made parallel to the inner half of Poupart's ligament and half an inch above it (Fig. 3). This incision is the same as that used for the radical cure of the inguinal hernia. It has the following advantages. First, it avoids the scrotum—a region which is notoriously difficult to cleanse or disinfect, exceedingly hard to keep aseptic and highly disposed for infiltration and accumulations of blood; secondly, it brings the operator straight down upon the seat of constriction whether it is at the external abdominal ring, in the inguinal canal, or at the internal ring; thirdly, it facilitates the radical cure; and, fourthly, it permits of the application of a secure, air-tight, and pressure-exerting dressing. This skin incision having been made all the tissues covering the sac, including the aponeurosis of the external oblique

FIG. 2.

Fergusson, the scrotal incision. In this figure the half-shaved pubis is not in accord with modern views.

muscle, are divided and the inguinal canal opened from end to end. The sac itself is pinched up and opened at the inner angle of the wound. If it does not present it is easily pushed up by squeezing the scrotum. As soon as a free opening has been made with knife or scissors, and before the constriction is divided and the peritoneal cavity opened up, all the sac fluid is evacuated and the inside of the sac and its contents thoroughly disinfected with chemicals, such as 1 part of biniodide of mercury in 1000 parts of water. This step is very important. It has been long known—and recent work confirms the fact—that in most instances the fluid in the sac of a strangulated hernia is septic. Tavel and Lanz,[1] to whom we are indebted for some

FIG. 3.



The inguinal incision over the inguinal canal.

of the latest and best investigations, found the colon b (several varieties), proteus vulgaris, and pseudo-dip bacillus in the fluid in the sacs of strangulated Bönneken found bacteria in the fluid when it was qui and after only four hours' strangulation—the gut, of being quite viable. This is in accord with the expe of Arndt and others upon the effects of constricti the intestines. Although the septicity of the the sacs of strangulated herniæ has been know 1869 when Nepveu first saw the bacteria, the im of a thorough disinfection after opening the sac ha had the recognition which it undoubtedly deserves. having been disinfected, it is now quite easy to c constriction about its neck with the knife or scisso chance the hernia be of the direct variety, the artery might cross over the front of the upper pa neck of the sac. It is desirable, therefore, to pro some caution. But in direct hernia the artery an comites are easily seen and avoided. Indeed it i less danger than when the surgeon is dividing th tion by cutting with the knife and director from sac. Moreover, it would be quite easy to secure if it was wounded, because the incision is wide accessible.

Having disinfected the sac and relieved the st the contents of the sac have to be dealt with. the great merits of the inguinal incision become In many large inguinal herniæ the intestine is o mass of omentum. In some this omentum has be together and adherent about the neck of the s adhesions are all in sight in this operation, they c and safely undone and the omentum tied high up Having seen two deaths from hæmorrhage f omentum, I am always most anxious at this stage. fatal cases the ligature came off the stump of t the operator having omitted to transfix it with In the other the hæmorrhage came from ves stomach. These had been torn through in pulli tum down. When much omentum has to be t to introduce several interlocking ligatures rath to a single one. The latter may make such

[1] Ueber die Aetiologie der Peritonitis. Basel, 189 Figs. 8, 16, 24, 28, &c.

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that it will hardly return into the abdomen. The intestine is next examined, thoroughly disinfected, and returned. Should it have contracted adhesions to the fundus of the sac or to the testis it is quite easy to turn the sac inside out and undo them. When the cæcum or sigmoid flexure is herniated their relations to the sac are sometimes very embarrassing. On several occasions I have under these circumstances divided the sac transversely below the adherent intestine, closed it, and returned it with the intestine into the abdomen. In addition to the facility with which the omental and intestinal adhesions can be dealt with through the high incision I have found that it renders the resection of gangrenous intestine a comparatively easy procedure.[2] The damaged bowel together with a sufficiency of healthy bowel and mesentery cannot always be pulled down through the scrotal incision; also the subsequent return of the sutured intestine is difficult when the wound is in the scrotum. Both the intestine and mesentery are easily dealt with through the inguinal incision and reduction is easy with the peritoneal cavity wide open.

The strangulated bowel or omentum having been dealt with, the hernial sac calls for attention. It is divided transversely about an inch from its opening into the abdomen and its upper part separated from the constituents of the spermatic cord, transfixed with a silk ligature, and tied with a Staffordshire knot. It may be difficult to separate the sac from the cord, but this difficulty is less near the mouth of the sac because at that point the cord is less adherent to the peritoneum. The fundus of the sac need not, as a rule, be taken away. It is safe to let it fall back into the scrotum. However, if the sac is small and not adherent to the cord it may be taken away. Also it is advisable to remove it in any case if it forms a bulky mass likely to distend the inguinal canal. When the mouth of the sac is very capacious it may require to be laced up with a series of sutures which transfix it and interlock with one another. An operation for strangulated hernia is not complete until an attempt has been made to effect a radical cure. In congenital hernia this is done with excellent prospects of a permanently successful result. In acquired hernia it may be advisable after awhile to order a light truss. But even in the last case the repair of the abdominal wall adds to the safety of the patient and makes the precautionary treatment with a truss much easier.

A satisfactory radical cure could not be done through the scrotal incision. Stitches passed without the aid of vision are not reliable. But when the whole inguinal canal is laid bare each step of a radical cure is done quickly and securely. The radical cure which I perform has been described elsewhere.[3] Briefly it is Bassini's operation with some modifications. It comprises the following stages:—First, the neck of the sac is, as I have just said, transfixed with a silk ligature. This is tied and its ends carried with a blunt needle through the transversalis fascia, transversalis muscle, internal oblique muscle, and aponeurosis of the external oblique. Then they are tied beneath the skin so as to fasten the stump of the sac beneath the muscles of the abdominal wall opposite the outer third of Poupart's ligament. Secondly, the spermatic cord is lifted up and the back of the inguinal canal closed by uniting the internal oblique and transversalis muscles and the transversalis fascia to the deep surface of Poupart's ligament by means of silk sutures. Thirdly, the inguinal canal is closed by uniting the cut edges of the aponeurosis of the external oblique muscle, and, finally, by closing the wound in the skin. In a great number of operations I have never known the division of the aponeurosis cause any ill results. An air-tight dressing, which exerts proper pressure, is easily applied to the wound. Scrotal wounds are notoriously difficult to dress and do not permit of any adequate pressure. Nearly every surgeon has his favourite dressing. A layer of carbolic gauze which has been soaked in a 1 in 2000 solution of biniodide of mercury in water supplemented with a layer of alembroth wool and covered with an outside dressing gives good results. The outside dressing ought to be cut to fit and fastened round the pelvis and thigh with straps and buckles. The whole is secured with a spica bandage. As this operation is directed by vision it is easy to perform and unattended with accidents.

Upper Berkeley-street, W.

[2] A Case of Resection and Immediate Suture of Intestine, &c. Transactions of the Royal Medical and Chirurgical Society, vol. lxxviii., p. 193, &c.

[3] The Radical Cure of Femoral and Inguinal Hernia.—THE LANCET, Nov. 25th, 1893.

A NEW AND EASY METHOD OF PREPARING SERUM AGAR-AGAR: AN AID TO THE DIAGNOSIS OF DIPHTHERIA.

BY A. A. KANTHACK, M.D. LOND.,
LECTURER ON PATHOLOGY, ST. BARTHOLOMEW'S HOSPITAL;
AND
J. W. W. STEPHENS, M.B.,
TREASURER'S STUDENT IN PATHOLOGY.

(*From the Pathological Laboratory, St. Bartholomew's Hospital.*)

VARIOUS nutrient media have been recommended from time to time for the separation of diphtheria bacilli, and of these Löffler's serum agar-agar has generally been considered to be the best. There are, however, some difficulties, though perhaps slight, in obtaining the serum and in preparing the mixture. These are felt most in a busy laboratory insufficiently endowed with assistants. It is not always easy to procure serum without some or much loss of time. At a large general hospital there is always a copious supply of ascitic, pleuritic, or hydrocele fluids—albuminous exudations directly derived from the human blood—which are, as a rule, wasted after being measured into pints, ounces, and drachms. It struck us that these fluids might be used with advantage instead of serum. We soon found a ready method of preparing from them large quantities of beautifully clear and transparent agar-agar in less than an hour. We proceed as follows:—

To every 100 c.cm. of the serous exudation 2 c.cm. of a 10 per cent. solution of caustic potash must be added, thereby the serum albumin is converted into an alkali albumin which is not precipitated on boiling. To this we add 1·5 to 2 per cent. of agar-agar, previously soaked in acidulated water,[1] and boil the mixture in a Koch's steamer till the agar-agar is well dissolved. When this has happened the liquid in the flask will appear as transparent as if it had been cleared with white of egg. It must now be filtered through a hot-water funnel, and if a coarser kind of filter-paper be used it will generally run through very quickly and, at the same time, be marvellously clear. To the filtrate 4 to 5 per cent. of glycerine should be added. It may then be poured into test-tubes, and the contents of the latter after sterilisation will set firmly and often form a medium almost as transparent as gelatin. If the serous exudations are worked up as soon as possible after they have been received from the body the resultant agar-agar will be clear and light. Besides glycerine, 0·5 to 2 per cent. of grape sugar may be added; but we have not found that this in any way improves the medium, but on the contrary the combined presence of the sugar and the caustic alkali renders the agar-agar darker.

This serum agar-agar has the following advantages:—(1) it is quickly prepared with very little practice, often in about half an hour; (2) it is exceptionally clear and transparent; (3) its basis is derived from the human subject; (4) the serous exudations can be easily obtained, free of cost and trouble; (5) it does all that serum can do; (6) its selective action on the diphtheria bacilli is greater than that of any other serum preparation known to us; (7) its inhibitory action on staphylococci, bacillus coli communis, &c., is indeed extraordinary; (8) cultures which on ordinary media appear as uniform streaks in this medium develop as individual colonies, so that subsequent cultivation is rendered easy; (9) organisms which utterly refuse to grow on gelatin and agar-agar thrive well on this soil, and we have therewith separated certain bacterial forms which on other media have always escaped us; (10) this medium can be readily melted and be then used for the purpose of plate cultivations; the resulting plates are more transparent and drier than ordinary agar-agar plates. In a diphtheria diagnosis it has saved us a considerable amount of time, and now, after it has been tested for some months both in Dr. Klein's and our own laboratories, we feel that this short account may be of use to other workers.

We must add one word of advice. Before adding the caustic potash to the serous fluid we always boil a small quantity of it in a test tube. If it becomes practically solid

[1] Kanthack-Drysdale: A Course of Elementary Practical Bacteriology, Macmillan and Co., p. 90.

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or contains large quantities of albumin, the fluid must be diluted with at least twice its bulk of distilled water, and then to every 100 c.cm. of the diluted fluid 2 c.cm. of KOH and 1·5 to 2 grammes of agar-agar are to be added. Unless this is done the whole mass will gelatinise and be utterly useless. This difficulty we did not recognise at first, because it is one which does not often arise. The serous exudation after the addition of the alkali forms also a good liquid nutrient medium for bacteria—useful because it is easily sterilised and because it favours the chemical activity of many pathogenetic organisms.

FOUR CASES OF EARLY EXTRA-UTERINE GESTATION.[1]

BY ALBAN DORAN, F.R.C.S. ENG.,
SURGEON TO THE SAMARITAN FREE HOSPITAL.

ABOUT a year ago within the space of four months I had under my care four patients who consulted me for symptoms now very familiar to the reader of medical literature. These cases suggest a consideration of certain diagnostic features and of the justifiability of operative interference. The latter greatly depends upon the former. One case clearly required immediate operation. The second was in such suffering that surgical aid was sought and proved justifiable. The third was in a somewhat similar condition, but the patient was single, the clinical history not quite reliable, and the symptoms obscure in certain respects. The operation was, strictly speaking, exploratory. The fourth, which resembled the others in many ways, showed no acute symptoms and recovered after prolonged rest without any operation.

CASE 1.—The patient, aged twenty-five years, had been married three years and had borne one child eighteen months before operation. The periods had been regular, the last occurring fourteen weeks before the removal of the fœtus. For two months several violent attacks of pain and syncope had occurred. Dr. Hubert Roberts detected a very tender swelling in the right iliac fossa pushing the uterus upwards and to the left. The patient was admitted into the Samaritan Free Hospital under Dr. Boulton. A characteristic seizure took place one night, and as she was very pale and weak I decided on operating at once, being assisted by Dr. Hubert Roberts and Dr. Walter Tate. After clearing away a quantity of clot and liquid blood I came upon a ruptured cyst bleeding very freely. A fœtus five and a half inches in length protruded from the rupture. (Fig. 1.) I succeeded in making a pedicle between the right side of the uterus and the cyst, which was then removed. It had developed in the infundibulum of the tube. I cleared out all free clots, leaving alone the half-organised coagula, which adhered firmly to the peritoneum, and closed the abdominal wound. The patient was suffering at the time from acute bronchitis which retarded convalescence. At present, eleven months after the operation, she is in good health.

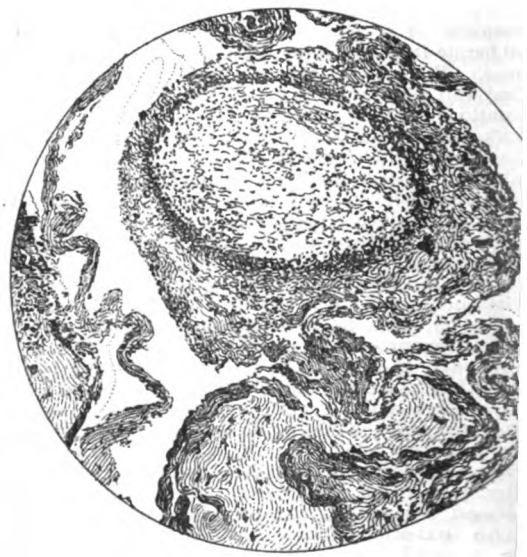
FIG. 1.

Tubal sac, Case 1, showing position of fœtus. (Specimen now in the Museum of the Royal College of Surgeons of England, No. 4895 G, Pathological Series.)

CASE 2.—The second patient was a thin, sallow woma aged forty years. She had been married fourteen years, he only pregnancy occurring a year after marriage. Usuall quite regular, she missed a period, and three weeks later th right iliac fossa became tender. Two days afterwards very severe attack of pain, with pallor and collapse, set i and radiated down the front of the thigh. Called in Mr. Nourse of Holloway to examine her, I detected a distin tender swelling in the right fornix. After a week's re several more paroxysmal attacks occurred, suspicious shred structures were passed from the uterus, and the swelling gr larger. The temperature rose to 100·8° F. The breasts we flaccid. I operated on March 23rd, 1895, exactly a calend month after the first attack of pain. The patient had gro very weak from the pain, but was not distinctly anæmic. found several ounces of dark blood in the pelvis. A spheri sac of the isthmus of the tube, two and a half inches in l diameter, was plainly adherent to the small intestine and vermiform appendix. On separating the adhesions I expo a laceration in the upper part of the sac which at once l very freely. The inflammatory changes had stopped hæmorrhage. The affected tube and ovary were removed cleared the pelvis of clots and closed the abdominal wo The period reappeared on the fortieth day after the operat and the patient, who has gained flesh, has been regular since. Though no fœtus was found the microscope confi my suspicions that there had been ectopic gestation. Figs. 3 and 4.)

CASE 3.—I am indebted for the third case to Dr. R She was a naturally anæmic Polish Jewess, aged eighteen and unmarried. After suffering cruel privations fr expulsion from the Russian Empire she settled ir end with her mother, who one night scolded her home late and expressed suspicion about her con girl flew into a passion and stamped on the gr which a paroxysm of intense pelvic pain set it. attack came on a few days later with a show of bl she believed, or wanted others to believe, to b Dr. Rasch discovered a painful swelling in the fossa. A free show of blood began about a the first attack of pain. Rest was of no avail. on Jan. 8th, 1895. After separating the adherer small intestine, and vermiform appendix I drew the infundibular part of the right tube full of and about three inches in diameter. The rest o tion was easy; a good pedicle could be made

FIG. 2.



Chorionic villus in clot adherent to wall of tube, Case dark border represents the trophoblast.

[1] Read at a meeting of the Medical Society of London, March 23rd, 1896.

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over half an inch of tube internal to its fœtal sac. I broke down the adhesions which bound down the left appendages and closed the abdominal wound. The patient soon regained health. A well-marked chorionic villus was found in the clot adherent to the wall of the sac. (Fig. 2.)

CASE 4.—The fourth case recovered without operative interference. The patient aged thirty-four years had been married thirteen years. Since her only pregnancy, ten years ago, she suffered from frequent attacks of pelvic pain and had been laid up twice in the last two years. The catamenia suddenly ceased, and when two weeks overdue a paroxysm of pelvic pain set in with nausea and retching. On the second day a coffee-coloured discharge appeared and continued for six weeks; then Dr. Walter Tate examined her and noted:—"Cervix forward; body of uterus pushed forward two and three quarter inches. Firm, elastic swelling fills up the right side of the pelvic and posterior part and extends to the level of the umbilicus. Harder and more nodular on the left side." Two days later the patient felt the menstrual molimen and the show increased. Next day Dr. Tate sent her into the hospital as the swelling was increasing. I found the patient to be fairly nourished; the breasts were flaccid. The tumour was as above described by my colleague and it extended down to the left fornix. As no second paroxysm of acute pain had occurred I kept the patient in bed for three weeks. At the end of that period the mass had become much smaller and harder; it was clearly a hæmatocele. Dr. Tate watched the patient carefully. Eight months later he reported that "the tumour had become almost entirely absorbed. It was not larger than an egg and the patient was perfectly well."

Remarks.—These cases tend to show that sudden attacks of pain associated with the development of a mass on one side of the uterus are the most characteristic symptoms of early ectopic gestation. The signs of normal pregnancy may be absent. Amenorrhœa is very unreliable, nor must we forget that menstruation may continue during normal pregnancy. The period had ceased in Case 1, which was so perfectly clear. In Case 2 it had ceased eleven weeks, but there was "show"; in Case 4 there was a continuous coffee-coloured discharge for six weeks. In these two latter cases the patients were intelligent and based their statements on the absence (Case 2) or presence (Case 4) of the menstrual molimen. We know, however, that this purely subjective symptom may mislead multiparæ. In Case 3 the patient's veracity was doubtful. In Case 1 alone was there any tendency to the changes in the breasts which are characteristic of pregnancy. The remainder were all more or less sickly. On the other hand, a trace of evolutionary change in the mammæ may remain for months or years after lactation and the development of pelvic or even abdominal disease may set up fulness in the glands. In December, 1895, I examined a young woman who had a large abdominal tumour. One breast was distended and milky fluid issued from the nipple. The urine was normal. I explored and removed a large tumour of the right kidney. The uterus showed no sign of pregnancy. The breasts are, then, an uncertain guide in early ectopic gestation. The decidua is a valuable bit

CASES OF EARLY EXTRA-UTERINE PREGNANCY.

No. of case.	Age.	Married or single.	Children and last confinement.	Catamenia and state of breasts.	Last period.	Hæmorrhage apparently not connected with period.	Decidua.	Symptoms, besides menstrual irregularities or hæmorrhages.	Condition discovered at operation.	Catamenia after operation
1	25	Married (3 years).	1 (18 months); no abortion.	Catamenia previously regular. Breasts full; nipples prominent.	14 weeks before operation; normal.	Occasional spot or two of blood. A month before operation blood and matter came away (probably from rectum — operation for fistula 2 years before).	Nothing like decidua ever detected.	Several attacks of pain within last 2 months; pain and syncope 1 week, then tender swelling in right iliac fossa, rising above symphysis; acute attack of pain with anæmia and syncope, when operation was performed.	Ruptured cyst of infundibulum of right tube. Peritoneal cavity full of clots. Cyst removed, left appendages normal.	Reappeared 4 day after operation; again days after operation; regu for last t months.
2	40	Married (14 years).	1 (13 years); no abortion.	Catamenia regular. No changes in breasts.	11 weeks before operation; profuse, not very painful.	"Show" 16 and 8 days before operation.	Shreddy structures, mixed with recent clot, passed 8 days before operation.	Violent pain in right iliac fossa (preceded by 2 days of local tenderness) a month before operation, pallor, collapse, swelling in right fornix, frequent paroxysmal attacks with faintness, fever, &c.; emaciation; anæmia not marked.	Pelvis contained dark blood. Cyst of isthmus of right tube ruptured; laceration closed in by firm adhesions to intestines and vermiform appendix. Removed.	Reappeared the 40th after operati Regular e since.
3	18	Single.	No evidence of former pregnancy.	Catamenia very regular. No changes in breasts.	1 month before operation; profuse "show" (see next column).	Uterine hæmorrhage twice in the 2 months before operation. (Patient's statements not reliable.)	Nothing like decidua detected.	Two months before operation sudden attack of severe pain in pelvis following a fit of passion; tumour developed in right iliac fossa; marked anæmia, but of long standing.	Thin-walled tubal cyst full of tarry blood in infundibulum of right tube. Omentum, vermiform appendix, and coils of small intestine adhered. Cyst removed. Chorionic villi found in clot.	Reappeared weeks a operation. C tinues reg 1 year a operation.
4	34	Married (13 years).	1 (17 years); no abortion.	Catamenia regular, but scanty. Breasts flaccid.	2 weeks overdue when acute symptoms set in.	Coffee-coloured discharge for 6 weeks.	Nothing like decidua detected.	Pelvic pains ten years (since sole confinement); acute attacks twice in last 2 years; severe pelvic pain, nausea, and retching came on suddenly when the catamenia were 2 weeks overdue; coffee-coloured discharge began next day; firm elastic swelling on right side of pelvis, reaching to umbilicus; uterus 2½ in., pushed forwards and upwards.	No operation. After 3 weeks' rest in bed the swelling became very much smaller; 8 months later it was not larger than an egg, and patient was perfectly well.	(No operati Quite reg since su dence of sw ing.

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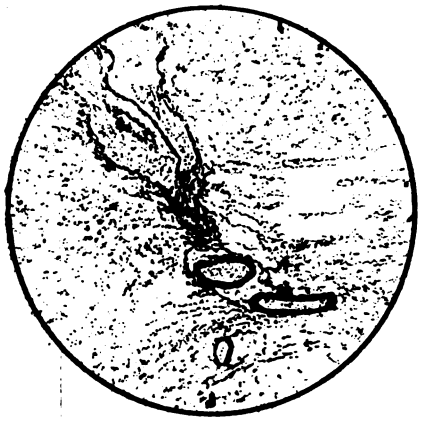
evidence if it be shed, detected, and preserved. Pilliet[2] has recently shown that in early ectopic gestation it is not smaller, but, on the contrary, much more developed than in normal pregnancy. In Case 2 suspicious shreddy structures were expelled after one attack of pain; in others the decidua was either not shed or escaped unnoticed. In Case 2 the last pregnancy occurred thirteen years before, and in Case 4 ten years before the abnormal gestation, but in Case 1 the patient had a child eighteen months old, whilst in Case 3 the patient was only eighteen years of age and probably a primipara. The previous histories are just as conflicting in respect to pelvic inflammation from which Case 4 had suffered for ten years, whilst Case 2 had been perfectly well during her thirteen years of sterility. Case 1 seems to have been free from this complication, and Case 3 was very ill after expulsion from Russia. Acute anæmia was marked in the self-evident Case 1. Case 3 was extremely anæmic, but through constitutional causes, and the hæmorrhage was confined to the interior of the sac. In Case 2 the pallor was marked at every paroxysm of pain and passed off soon, to be replaced by sallowness. In short, it was the pallor of pain. In Case 4 there was no pallor though there was evidence of extensive hæmorrhage. On the other hand there was a history in all of one or more violent attacks of pain. The cause, in ectopic gestation, of this paroxysmal agony is an interesting subject, but it cannot be discussed at present. In Cases 1 and 2 the attack frequently recurred. In Case 3 there was only one fit of severe pain, which directly followed a fit of violent passion; no doubt hæmorrhage into the sac occurred then. The dull pain which followed and increased was clearly due to the peritonitis which developed around the sac. The microscope settled the nature of the tubal swelling. From the first three cases we can fairly assume that extra-uterine pregnancy existed in Case 4. Severe pelvic pain, nausea, and retching came on in association with previous menstrual irregularity and subsequent uterine hæmorrhage and development of a hæmatocele. When an operation has been performed the diagnosis may remain uncertain, for the fœtus is often destroyed by the internal hæmorrhages. The clot and tubal wall should always be examined by a competent observer. I must thank Dr. Eden and Mr. Targett for their opinions on my specimens. In the sections from Case 1 the villi were well developed and were eating through the thin sac wall, as often happens after the first two months. No traces of decidua remained. In Case 2 no fœtus was found, but the appearances of the sections were absolutely pathognomonic. In the photo-micrographs which are here reproduced (they were taken by Mr. Roughton and Mr. Cosens) the chorionic villi are very evident. (Figs. 3 and 4.) The trophoblast

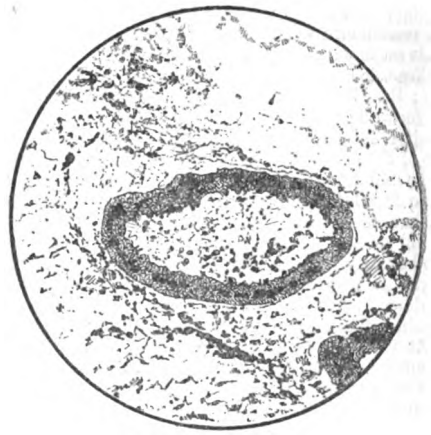
FIG. 3.



Chorionic villi in clot adherent to the wall of tube, Case 2. (Half an inch objective.)

layer, nucleated yet not divided into cells, shows very clearly. Dr. Eden detected large, round, decidual cells in an involution of the tubal wall. As the ostium was not closed there possibly might have been tubal abortion at an early stage, with subsequent hæmorrhage into the sac. In conclusion, it seems that operative interference is always called for when acute symptoms are present, especially if they have recurred. The chances of permanent subsidence of the pain and that which causes it are less than the risk of fatal hæmorrhage or complications very prejudicial to health. Thus an operation is less perilous than expectant treatment.

FIG. 4.



One of the villi seen in Fig. 3, one-eighth of an inch objective. The trophoblast is very well developed.

When, on the other hand, we can obtain, as in Case 4 history of steady subsidence of pain and swelling for we after a single acute attack it is our duty to trust to rest the same time keeping a vigilant watch on the pati Spontaneous recovery is then highly probable.

Granville-place, W.

[2] Études Histologiques des Modifications de l'Utérus dans la Grossesse Tubaire.—Annales de Gynécologie et d'Obstétrique, vol. xliv., 1895, p. 241.

THE GYNÆCOLOGICAL COMPLICATIC OF GONORRHŒAL INFECTION.

BY THOMAS MORE MADDEN, M.D. TEXAS, F.R.C.S. EDIN.,

OBSTETRIC PHYSICIAN AND GYNÆCOLOGIST TO THE MATER MISERIC HOSPITAL, DUBLIN; CONSULTANT AND EX-MASTER TO THE NATI LYING-IN HOSPITAL, IRELAND, ETC.

THE far-reaching gynæcological and obstetric resu gonorrhœa are still not infrequently insufficiently recog In the hope, therefore, of directing further attentio only to the importance of these complications, but stil to the timely detection and treatment of the in whence they originate, I now submit the following observations, founded on a long clinical experience of chronic vaginal, cervical, endo-uterine, tubal, and intra-pelvic complaints thus occasioned that hav under notice in my wards.

The greater prevalence of diseases of this kind in than in private practice is, I think, unquestionable explicable by the unclean personal habits and ne prophylactic treatment too generally observable former class of patients. In some of the instance kind observed in my hospital the disease was distin immediately traceable to the recrudescence, ur stimulus of sexual intercourse, of an infection cc prior to marriage by the patient's husband and to run on into an ignored chronic, slight gleety containing those specific and still pathogenical micro-organisms by which gonorrhœa is comm More usually, however, the infection so conveye recognised until its remote consequences are brou gynæcological observation, its earlier non-detectio cases being due, firstly, to the common occurren specific hæmorrhagic discharges from the vul mucous surfaces as well as to their compara structure, owing to which it is that, save where th virus is exceptionally intense and is chiefly locali more sensient tissues of the vestibule and meatus women thus infected seldom manifest those ev

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local inflammatory action—scalding in micturition, pain in coitus, glandular complications, febrile disturbances, &c.—which generally attend acute gonorrhœa in the male. The differentiation of gonorrhœal from non-specific inflammatory or catarrhal exudations of the female genital mucosa is, as I have elsewhere pointed out, oftentimes a matter of no little difficulty and importance. In both cases the local condition may give rise to discharges from the mucous membrane of the urethra and bladder as well as from that of the vulvo-vaginal walls, which can only be distinguished with absolute certainty by the recognition of the gonococci of Neisser in the cases that are gonorrhœal. Frequently, however, this test is not practically available, and, further, it is not always reliable, as that gonococcus is by no means invariably accurately distinguishable, at least by immediate microscopic examination or without a process of cultivation, from those other micro-organisms with which it might be confounded. The time requisite for the latter or culture test is quite sufficient to preclude its utility as any help in such cases to the practitioner requiring some immediate guidance as to the necessity for the use of those germicidal agents on which alone he can rely for the averting of the remote gynæcological consequences of gonorrhœal infection. Under such circumstances, therefore, our judgment should be grounded on the history, the symptoms, and even to some extent on the probabilities of the case, rather than rest, as some suggest it may do, on an exclusive dependence on bacteriological evidences, which, however valuable in many instances, in a still larger number must prove fallacious as a means of diagnosis and useless as an indication in treatment. Moreover, for the latter purpose, at least, a sufficient approximation to accuracy may generally be arrived at without any microscopic examination. Thus, for instance, if a vulvo-vaginal exudation be distinctly muco-purulent in character, attended by well-marked localised inflammatory action, hyperæmic tumefaction, and tenderness in the vicinity of the meatus urinarius, with a peculiarly viscid discharge therefrom and dysuria, there can be little question of the expediency of treating the case as one arising from gonorrhœal infection. At the same time we would not be justified on such evidence in formulating any *ex cathedrâ* diagnostic pronouncement. For, as I need scarcely reiterate, in cases of this kind, in which, as sometimes happens, our patients' domestic happiness as well as physical health may be involved, our opinions should not only rest on the largest data available and be carefully weighed, but also, above all, they should always be expressed with the utmost possible caution.

The consequences of unchecked extension of gonorrhœal infection from the vulva to the adjacent parts can here be only very briefly glanced at. In the first place, as the disease progresses the calibre of the genital passage soon becomes sensibly diminished by the congestive hypertrophy of its specifically irritated lining membrane and by the accompanying hyperæmic condition of the sub-mucous tissues. The vaginal surface may now be found bathed in a more or less profuse mucoid or muco-purulent discharge containing gonococci, by which the disease is ere long carried from the roof of the vaginal vault to the contiguous mucosa of the vaginal portion of the cervix and thence to the endometrium of its canal. The results of this now become evinced in the causation of many cases of dysmenorrhœa and sterility, which in some instances are obviously due to the spread of the gonorrhœal inflammatory action from the muciparous follicles or glandulæ Nabothi to the underlying structures of the cervix and the consequent occlusion or impaired patency of its duct by plastic exudations. Of still greater importance in this connexion are the immediate pathological effects of the specific contamination of the cervical mucoid secretions occasioned by gonorrhœa. Under normal circumstances the crystalline mucus acts as the natural lubricant of the canal and as a protection in the intervals of the catamenia against the admission of pathogenic germs to the uterine cavity, whilst at the same time serving as a suitable medium for the transmission of spermatozoa and also as a seal to its orifice during pregnancy. When, however, that secretion becomes distinctly abnormal or infected by gonococci not only are these functions necessarily impaired, but, moreover, the pathological discharge becomes a direct source of irritation or erosion of the cervix, as well as of dysmenorrhœa, and, above all, of sterility. The latter result is apparently directly consequent in such cases on the destruction of the spermatozoa by the infective micro-organisms then contained in the cervical mucus. This view has been sufficiently confirmed by my experience of many instances in which the cure of sterility as well as of its immediate gonorrhœal cause has been effected by thorough curettage of the cervical canal followed by the local application of germicidal agents and the use of salol bougies. If the infectious disease be not thus arrested before it has passed the cervical zone its results, as I have elsewhere shown,[1] are evinced in the causation of a large proportion of the cases of chronic endometritis that come under our notice. Of still graver pathological importance is the further extension of gonorrhœa beyond the endometrium and the consequent induction of those tubal, ovarian, or other intra-pelvic lesions to which a brief reference must here be made.

The diagnosis of gonorrhœal from other forms of chronic salpingitis as well as that of the consequent tubal collections—i.e., pyo- or hyo-salpinx—must rest as largely on the history and general symptoms of each case as on the bacteriological evidence which in some instances may be afforded by the detection of gonococci in the accompanying cervical or vaginal discharges. Of the earlier symptoms of gonorrhœal, as well as of non-specific, salpingitis, probably the most constant are the persistent recurrence of otherwise inexplicable attacks of menorrhagia and metrorrhagia, associated with dysmenorrhœa in the intervals, between which attacks a deep-seated acute or lancinating intra-pelvic pain shooting out into the sacral and inguinal regions or extending down the thighs, is generally complained of. As the disease goes on evidences of pyrexial disturbance, sudden alternations of temperature, a spiky clinical chart, and pyogenic rigors become observable, and are often attended with intra-menstrual hæmorrhagic or watery mucoid discharges from the uterus, whilst a little later local tumefaction and tenderness, discoverable by conjoint recto-abdominal exploration, in the course of the oviduct may disclose the existence of pent-up purulent or serous collections in the infected tube. The frequency of the extension of gonorrhœal infection from the oviducts to the ovaries, although disputed by some authorities, appears to me to be unquestionable. At any rate, whatever may be the case elsewhere, in my wards at least acute inflammation of the ovaries has been brought under notice as a consequence of that infection almost as commonly as from puerperal and other septicæmic causes being, in fact, as Sir Spencer Wells observed, "probably a more frequent occurrence than acute orchitis is in the male." The chief symptoms of this condition are a localised, continuous, dull aching pain, extending in area and increased on touch or motion, together with a directly recognisable enlargement and tenderness of the implicated gland. This condition in its acute stage is invariably attended with well-marked constitutional and febrile disturbance, and subsequently, as the disease becomes chronic, with a long train of menstrual derangements and neurasthenic disorders which are not infrequently misascribed to other causes. The latter or chronic form of gonorrhœal oöphoritis may, moreover, if neglected, lead to serious structural local changes, including suppuration, softening, or even complete disintegration of the stroma of the affected organ. In some cases I have seen the ovary itself converted into a thin-walled pyogenic cyst containing a quantity of intolerably fœtid pus. In one of these instances the cyst eventually ruptured into the peritoneal cavity and so proved fatal. In another case this result was averted by the timely removal of a similar collection. Fortunately, however, the consequences of chronic gonorrhœal oöphoritis are by no means generally so immediately grave as in the cases just referred to, more common results being chronic enlargement from congestive hypertrophy of the affected glands with consequent menstrual derangements and infective hyperæmic changes in the adjacent pelvic peritoneum, while in some instances of this kind the ovaries ultimately become nodular and atrophied and ovulation ceases.

With reference to the other intra-pelvic complaints of which gonorrhœa is a fertile source I shall only here observe that long clinical experience has convinced me that in a large proportion of instances peri-uterine phlegmon, or in other words all those chronic inflammatory lesions of the pelvic serous and connective tissues formerly included in the term pelvic cellulitis and subsequently better known as perimetritis and parametritis, may be found traceable to tha

[1] Vide Clinical Gynæcology: a Handbook of Diseases of Women. London and Philadelphia, 1893, p. 350.

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infection. I regret that the limits of space available prevent my now referring in the way I had designed to this topic, as well as to the no less important puerperal complications arising from the same cause which are frequently met with in obstetric practice, or even to the general treatment of gonorrhœal gynæcological complaints. In this connexion I may, however, venture to express the conviction that in dealing with possibly suspicious mucoid as well as mucopurulent discharges from the female genitalia it will, as a general rule, be found safer for the practitioner, without expressing his opinion, to treat the case as gonorrhœal. Nor should he, I think, wait for that certainty which may be obtained from the recognition of gonococci before resorting to the free and frequently repeated daily local use of efficient germicidal agents such as bichloride of mercury (1 in 2000), creoline (1 in 200), or lysol (1 in 100), these solutions being employed conjointly with insufflations of loretin not merely until, but for a considerable time after, every trace of the disease has apparently subsided. In this way alone can we ensure that if the case should be gonorrhœal our patient may be saved from the possibility of those complications which have been referred to in this paper; whilst on the other hand, if the discharge be simply leucorrhœal that plan of treatment can do little if any harm in any case and in the majority of instances will probably prove the most efficacious that could be adopted.

In conclusion I have only to reiterate the hope that even this necessarily brief and incomplete recapitulation of the gynæcological consequences of gonorrhœa may perhaps in some measure serve to accentuate the special importance of the earliest possible detection and prompt curative treatment of that disease in women.

Dublin.

A RECORD OF

CASES OF PNEUMONIA, PLEURISY, AND ACUTE RHEUMATISM OCCURRING AMONGST 400 ADOLESCENTS DURING A PERIOD OF TWENTY-FIVE YEARS.

BY CLEMENT DUKES, M.D., B.S. LOND.,
PHYSICIAN TO RUGBY SCHOOL AND SENIOR PHYSICIAN TO RUGBY HOSPITAL.

IN the issue of THE LANCET of Feb. 15th, 1896, I placed before the profession an account of the common sore-throats of adolescents. I now propose to record a complete series of cases of pneumonia, pleurisy, and acute rheumatism which have occurred amongst an average of 400 boys (to be quite exact the number is 403), ranging from thirteen to nineteen years of age, during a period of twenty-five years, and also the mortality therefrom.

Pneumonia.—The number of cases of pneumonia arising during this period was forty-four, with only one death, giving a mortality of 2·27 per cent. The cases were secured and transferred to the sanatorium at the earliest possible moment, and placed under the supervision of a day and a night nurse. The large number of cases which occurred during the year 1891 (and the following years) arose from the influenza epidemic. Now every case of influenza was as carefully isolated as if it had been scarlet fever, and, however slight the illness, was retained in bed for a minimum of five days, taken care of for five days more, and then disinfected as thoroughly as if it had been scarlet fever before returning to school; yet, notwithstanding all this care, there arose during that year alone twelve cases of pneumonia out of eighty-nine cases of influenza, a proportion of 1 in 7·4, evidencing the severity of the epidemic.

Pleurisy.—In the same number of years there appeared twelve cases of pleurisy with one death, giving a mortality of 8·33 per cent. During the influenza epidemic two cases of pneumonia were followed by empyema, which rapidly recovered after resection of a rib, and one by pleuritic effusion which did not recur after an early paracentesis.

Acute rheumatism.—It will be observed that the number of cases of rheumatism apparently largely increased after the year 1881. The reason was this. It is a well-known fact that the outward and visible signs of acute rheumatism in the young are frequently exceedingly slight, so vague as to be too often ignored until it is too late. In 1880 I had a case of endocarditis arise in a boy who had merely a little aching in a muscle, which I recorded in THE LANCET of that year. I then resolved that if increased precautions could possibly obviate this catastrophe no boy should ever leave school again maimed by a damaged mitral valve. Since that date I have therefore sent to bed in hospital every boy who had the merest muscle or joint ache which had not manifestly arisen from a hurt, and have detained him until it was quite clear that his pain was not rheumatic. I have been amply rewarded for this increased care, for out of eighty cases admitted with slight aches which might possibly be attributed to rheumatism only one manifested a soft mitral murmur, which completely disappeared before I set him at liberty. This increased number of cases, therefore, meant greater precautions, only twenty-nine out of eighty being detained in hospital over a week, most of them remaining only a day or two.

TABLE I., *showing the number of cases of Pneumonia, Pleurisy and Acute Rheumatism occurring amongst 400 Adolescents between Jan. 1st, 1871, and Dec. 31st, 1895.*

Year.	Number of cases of pneumonia.	Deaths from pneumonia.	Number of cases of pleurisy.	Deaths from pleurisy.	Number of cases of acute rheumatism.	Deaths from
1871	2	—	1	—	2	
1872	—	—	1	—	3	
1873	4	—	2	—	1	
1874	2	—	—	—	1	
1875	1	1	1	—	2	
1876	—	—	—	—	—	
1877	2	—	2	1	1	
1878	1	—	1	—	2	
1879	—	—	—	—	2	
1880	—	—	1	—	3	
1881	—	—	—	—	1	
1882	—	—	—	—	5	
1883	4	—	—	—	10	
1884	1	—	—	—	7	
1885	1	—	—	—	8	
1886	—	—	—	—	5	
1887	2	—	1	—	4	
1888	—	—	—	—	1	
1889	—	—	—	—	8	
1890	1	—	—	—	5	
1891	12	—	1	—	8	
1892	—	—	1	—	5	
1893	4	—	—	—	5	
1894	3	—	—	—	5	
1895	4	—	—	—	3	
	44	1	12	1	97	

TABLE II., *showing the cases of Pneumonia, Pleurisy, Rheumatism occurring amongst 400 Adolescents Jan. 1st, 1871, and Dec. 31st, 1895.*

Disease.	Total numbers.	Average number of cases per annum.	Per ai
Pneumonia	44	1·76	
Pleurisy	12	0·48	
Rheumatism	97	3·88	

Rugby.

MR. F. G. LLOYD, surgeon to the *Harl* and surgeon in charge of Dr. Jameson's men from Plymouth, has received a vote of thanks from th of the Chartered Company, together with a recognition of his services to the sick troopers.

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AN INQUIRY INTO

THE PHYSIOLOGY OF THE ACTION OF THERMAL SALINE BATHS AND RESISTANCE EXERCISES IN THE TREATMENT OF CHRONIC HEART DISEASE

(THE NAUHEIM AND SCHOTT SYSTEMS).[1]

BY R. F. C. LEITH, M.B., B.Sc., M.A., F.R.C.P. EDIN., &c.,
LECTURER ON PATHOLOGY, SCHOOL OF MEDICINE OF THE ROYAL COLLEGES, EDINBURGH, AND SCHOOL OF MEDICINE FOR WOMEN, EDINBURGH; PATHOLOGIST TO THE ROYAL INFIRMARY, EDINBURGH; EXAMINER IN PATHOLOGY, UNIVERSITY OF GLASGOW, AND ROYAL COLLEGE OF PHYSICIANS, EDINBURGH, ETC.

(*Continued from page 761.*)

THE PULSE.

THE alterations in the pulse may be estimated by the finger or sphygmograph, preferably the former. Sphygmograms are useful for recording purposes and save descriptions, but a too minute reading of them is apt to lead into error. The following agents are all brought into action by the bath—viz., rest, temperature, water, salines, and carbonic acid—and I have endeavoured to test their separate as well as combined effects upon the pulse by trying each in turn.

1. *Rest.*—The patient is enjoined to enter the bath quietly, lie down at once, and remain without moving during the whole period of immersion. Rest is thus secured, and in order to test its effect in a comparable manner I first caused a healthy person to lie quietly upon a couch for fifteen minutes. His pulse diminished in rate and increased in strength. I find this to be even more marked in cases of diseased hearts. Simple changes of posture from the erect to the reclining position, as is well known, are enough in many cases to effect a slight change. The effect of the rest alone is therefore distinct.

2. *Temperature.*—The temperature of the baths varies between 95° and 86°F.; an air bath of 95° feels considerably warmer than a water bath at the same temperature. Something between 85° to 90° is probably its equivalent. By means of a tent bed, in which the disrobed patient lay, his head being uncovered, I succeeded in testing the effect of an air bath of about 90°. The results were rather indefinite. If the temperature rose to about 95°, as it sometimes did, the pulse was slightly increased in rate, whereas if it remained about 90° it was slightly diminished; if it fell a little lower the pulse diminution became more marked. At or about 90° it appeared to be much the same or a little less than was formerly obtained under rest alone, while at 85° or less it seemed to be rather more. This appeared to show that temperatures between 90° and 95° were indifferent, while those under the former figure had a certain definite action.

3. *The simple thermal bath.*—In this we have the special mechanical and physical properties of the water added to those of the temperature and rest. The pressure which the weight of the water mass exerts upon the body of the bather is considerable. To the usual atmosphere the weight of the water is added. To a bather two feet high Mauther says the increase for a column of sphere pressure is equal to one-sixteenth of the atmosphere. If we are to judge or about 2280 lb. more than in ordinary air. 95° F. feels considerably colder than air at this temperature, by the sensations of the patient, a bath of the latter being more nearly equivalent to a bath of 105° or thereabouts. I do not know, however, whether we can say that the temperature effect of a bath at 95° is greater than the mere difference between its temperature and that of the body would warrant. The effect of a bath at this temperature continued for fifteen minutes was usually greater than that of an air bath five degrees lower or of rest alone. The difference became more pronounced as the temperature was lowered. At a temperature of 90° a diminution of pulse-rate of from five to seven beats in a minute with an increase in strength was quite common.

4. *The saline bath.*—Sodium chloride was next added to the bath in the proportion of 1 to 3 lb. to the 10 gallons in different cases. Its effect was generally to emphasise the change in the pulse and to make the bath more agreeable to the patient. This was more noticeable in the stronger baths, which are considerably stronger in salt than sea wa The bath was spoken of as warmer and more stimulat than the simple thermal one. Calcium chloride and bar chloride were next added, first separately and then togetl in the proportion of 1½ to 2 oz. to the ten gallons with any appreciable effect. Their action without the previ addition of sodium chloride was then tested with a sim result.

5. *The carbonic acid.*—This was usually added to the ba by means of Sandow's tablets, first recommended to me Dr. Bezly Thorne. Its action was generally quite decid and led to a further diminution in the rate and increase the strength of the pulse. When added to a simple pl water bath its action was very nearly if not as pronounc as when the salines also were present. It added a pleasa ness and buoyancy to the bath very agreeable to the patie and considerably increased the sensation of warmth. presence undoubtedly enables lower temperatures (86° F.) be more readily borne.

All the factors at work seem to have a certain amount influence and the final result may be regarded as due the summation of their actions. The temperature administered through the agency of the water is probab one of the most important of these, as its effects s extensive and far-reaching. Temperatures below body he applied to the skin cause a contraction of the cutaneo vessels over the part affected, higher temperatures causi dilatation. This result is brought about partly by a dire action upon the walls of the vessels themselves and the local nerve mechanism, and partly by reflex action throu the nervous system. Alterations in the calibre of t cutaneous vessels must affect the amount of the lym stream, and hence the nutrition of the surrounding tissu and even the flow through the veins and lymphatics. As t whole body is immersed, the area affected is a most extensi one. Further, there is reason to believe that the intern vessels are also affected, and that extensive cutaneous vascul contraction is always accompanied by a certain amount internal vascular dilatation and *vice versâ;* and according the experiments of Schüller this is also true of that part the body not immersed—viz., the head. He observed t vessels of the pia mater in rabbits after trephining the later walls of the cranium at both sides of the sagittal suture, ar found that cold baths produced dilatation of the vessels proportion to the extent of the body immersed, whi warm baths had the opposite effect. Winternitz believe that his plethysmograph experiments corroborate thes results and that the contraction produced by therm influence in a large vascular district causes compensato dilatation of the vessels in other parts of the body. Th plethysmograph registered an increase in volume of the ar during a cold sitz-bath, and the opposite during a warm on (95° F.). It will be remembered that this latter temperatur is that recommended by the Schott system as most suitabl for the commencement of a course of the baths. As it i slightly under the temperature of the skin we would expec that its thermal influence if any would lead to a sligh contraction of the cutaneous vessels. Instead of this definite dilatation was given, and it is probably to b accounted for by the definite fall in cutaneous temperatur caused by disrobing. This would apparently mean a certai contraction of internal vessels, especially of those of th brain. The regular recurrence of these vascular change might readily enough bring about certain changes i nutrition and tissue metabolism which may come to hav an important influence upon abnormal processes. W need not stay to consider the tissue changes, if any consequent upon abstraction of heat from the body durin the bath. The local cutaneous mechanism called int play prevents any reduction in the temperature of th body from such moderate degrees of temperature change as we employ. The influence upon sweat secretio must be noticed. During the period of immersion bot insensible perspiration and sweat secretion cease. The may, however, be increased afterwards. Whether this ha any local action or not it is difficult to say. Heymann an Krebs believe that it saturates the nerve endings an diminishes their excitability. Perhaps it in a measur explains the increased diuresis so frequently observed afte the bath. All these actions are more or less independent o the nervous system and there can be no doubt that there ar further actions specially referable to its influence. Al thermal influences affect the cutaneous terminations of the ordinary sensory nerves and thus reflexly the vaso-motor and cardio-inhibitory centres. There is no reason to believe that

[1] A paper read before the Edinburgh Medico-Chirurgical Society, Jan. 15th, 1896.

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such slight stimuli as our system uses afford any exception to this general physiological law. There will consequently be a slight tendency towards dilatation of the cutaneous vessels of the body generally and a contraction of those of the head accompanied by a slight stimulation of the cardio-inhibitory centre which will tend to increase the strength and slow the beat of the heart. But we have further to consider the influence in this relationship of the various chemical constituents which the bath contains. It is held by many that its saline ingredients act mainly by direct nervous stimulation, and the pleasant warm stimulating sensation experienced by the patient is pointed to as a proof of this contention. Those of us who have experienced the pleasurable tingling, stimulating sensations which follow a dip in the sea are perhaps too readily inclined to support this. The conditions are far from being similar. The average sea temperature is little over 50° F., and much that we may be inclined to attribute to the salt is really due to the thermal influence. It is easy to see how the sodium, calcium, or barium chlorides, especially the first named, may have some little influence in virtue of the increase they give to the specific gravity of the water and the encouragement they may give to exosmotic action. It is mainly, however, a physical or mechanical action and not a chemical one. The histological structure of the skin makes the possibility of a direct stimulation of the sensory nerve endings very difficult of acceptation. It is allowed on all hands that no absorption of mineral salts occurs through the skin, but it is maintained by Schott, Keller, and others that a certain imbibition by the skin is possible whereby the chemical ingredients are brought in contact with the cutaneous nerve endings. Schott supports his view by saying that when the skin is bathed with plain water after a saline bath the salt continues to come away for a much longer time than one would expect if it did not penetrate for some distance into the skin. Ranvier's investigations have shown that these nerve endings are not confined to the corium, as was generally believed, but are distributed within the deeper layers of the stratum Malpighii. Even so, however, the mineral salts have a considerable thickness of epidermis to pass before they are reached, and it is difficult to understand how they can percolate through these layers and yet avoid the lymph channels which lie between the prickle cells external to the nerve endings. Would not an entrance into these lymph channels mean a transference into the lymphatics of the true skin and an absorption into the system, which is denied by universal experience? I find it, therefore, difficult to follow Keller's explanations of the observations he carefully made upon himself. He found that a 3 per cent. sodium chloride bath at 93° F. and of thirteen minutes' duration has (1) a distinct diuretic effect and produces a marked increase of the chlorides of the urine, while plain water baths have the opposite effect; (2) a diminution of phosphoric acid; and (3) no appreciable influence upon the nitrogenous waste. Robin, on the other hand, finds that they increase the nitrogenous metabolism and the oxidation of the products of the retrograde metamorphoses of the albuminoids.

Dr. August Schott, in the laboratory at Breslau, made certain observations upon shaved rabbits. He used a bath with a movable partition dividing it into two chambers, one containing plain water, the other a 10 per cent. salt solution of the same temperature. By raising the partition so as to allow the latter to mix with the former he found that the blood pressure of the animals immersed therein rose 5 to 10 mm. These results have not, so far as I know, been corroborated and must be received with caution. It is conceivable that the delicate operation of shaving a rabbit—animals that are apt even under the most favourable circumstances to prove unsatisfactory subjects for blood-pressure experiments—may have something to do with the result. I cannot say that, so far as the ordinary methods of observation went, my cases disclosed any sign of special stimulation brought about by the pressure of the salines beyond the subjective sensations of the patient himself. The increase they produce in the specific gravity and their influence upon osmotic action in connexion with the skin may, indeed, be the only influence they call into play. I have endeavoured to estimate their effect upon the vascular system by means of the plethysmograph, using Dr. Milne Murray's water manometer as the recording instrument. I wish to record my grateful thanks to him and Dr. Noël Paton for much valuable advice and assistance in this part of my experiments. So far my observations have not been very definite. They were made upon two different individuals, one a lad, aged eighteen years and the other an adult male, both healthy. With the patient sitting in an ordinary full-sized bath, water at 95° F. was gradually run in until it entirely covered the legs and pelvis to the level of the anterior superior iliac spines. The plethysmograph recorded practically no change, so that if both these and Winternitz's observations are to be depended on a different effect would seem to be produced by a rapid and by a slow immersion, to be accounted for probably by the cutaneous mechanism becoming accustomed to the stimulation. The effect of salines and of carbonic acid was tried only in one of the cases. Sea salt was added in the proportion of 7 lb. to about 25 gallons of water at a temperature of 90° F. for a duration of several minutes and gave a negative result, the plethysmograph showing neither rise nor fall. The same result followed upon the addition of one pound of calcium and three-quarters of a pound of barium chloride respectively to the same quantity of water, over fifteen minutes being allowed for their effect to become established. So far as those observations go—and they have been too limited to be more than suggestive—they seem to corroborate those made on other lines. The salines would appear to have no direct influence upon the vascular system. It cannot be said, however, that these experiments test in any way their influence upon the nervous system, except perhaps in rendering it probable an ordinary stimulation of sensory nerves. If the large tract of cutaneous nerves subjected to the possibility of stimulation by the salines had been effected, might we not have expected some contraction of the vessels of the arm as the result of stimulation of the general vaso-motor centres? On the other hand, if we place any reliance on evidence so extensively brought forward by physicians to show that salt-water baths and douches are of very great value in the treatment of various nervous derangements we must allow that some form of nervous stimulation would appear to be possible. Whether this may be brought about by electrical contact currents, or mechanical influences, or both, which would naturally vary with differently constituted fluids, I am not at present in a position to determine.

The effect of carbonic acid was next tried, the subject being present and the temperature 86° F. A very slight effervescence was at once obtained by means of Sanitas tablets and kept up for ten minutes or more. A small but regular diminution in pressure at once showed itself and continued to increase so long as the record was taken. This showed a contraction in the volume and thus an increase of pressure in the arm. (The plethysmographic tracing is exhibited.) In Schott's experiments, already referred to, he found that its addition raised the blood pressure 10 to even 30 mm. Riedlin writes enthusiastically of its use and considers that it is the most potent curative agent in mineral-water baths. Its presence enables the body to be subjected to much lower temperatures and for longer periods. This he attributes to its stimulating effect upon the heart, which it is absorbed, when the pressure under which it exists in the bath exceeds that of the CO_2 in the blood vessels and lymphatics. Schott also supports its action under the same circumstances and believes that it is mainly due to stimulation of the cardio-inhibitory and other centres. Röhrig, Brémond, and others believe they succeeded in showing by experiments on animals that the skin can absorb gases, and that finely atomised solutions of various composition, or such in the form of gas or vapour, will penetrate the skin. If it be absorbed in the blood to any extent then doubtless it may exert a stimulating influence upon both the cardio-inhibitory and vaso-motor centres, judging by the effect of very small upon them. This does not follow as a matter of course, and there is the diminution of oxygen to be considered. I do not know that it is important enough to warrant discussion here. I can hardly claim to have studied the experiments made upon the action of CO_2, but although I have done so I have found no such clear proof as would enable me to maintain that it can be absorbed in any quantity by the unbroken skin, nor do I think it necessary to explain its physiological effects. We have the skin covered with a gas forming an almost continuous covering to the body; numerous are they; and though they are constantly being given off and replenished, yet this takes place only in a very limited extent over any given area at any moment. The escaping bodily heat may thus be retained a little by this layer, which will protect the body from the colder surrounding water. This may account for the marked feeling of warmth imparted to the skin by the effervescent bath. If the bather move

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of gas is at once liberated over a large area and a cold sensation is immediately experienced by actual contact with the water. One would fancy that if the feeling of warmth were in any way due to absorption it would hardly disappear so suddenly on the slightest movement. Be this as it may, however, there is another and more important action. The bubbles of CO_2 are constantly impinging upon the skin and dealing it thousands upon thousands of little blows. The pharynx readily appreciates them every time we take a draught of effervescing water. The cutaneous nerve endings exposed to their action in the bath are actively stimulated. One result of this stimulation is probably a dilatation of the vessels of this area with a contraction of those in the rest of the body, brought about mainly through the influence of the general vaso-motor centres. This would explain the rise in blood pressure recorded by my plethysmographic observations and presumably also by Schott's experiments. The feeling of warmth experienced over the immersed area may be partly if not entirely due to this dilatation of its cutaneous vessels. There may even be other effects, as a slight stimulation of the cardio-inhibitory and respiratory centres, but it cannot, however, be too carefully remembered that just as the stimulus is gentle so also will its results be gentle, influenced though they may be to a certain extent by the irritability of the individual. The probability also of a certain amount of absorption of CO_2 by the respiratory mucous membrane must not be lost sight of, for the atmosphere which the patient breathes, his heart being just above the water, becomes steadily charged with CO_2.

Effect upon the heart.—The primary action upon the heart of stimulation by temperature has long been known, and Röhrig's experiments pointed to reflected impulse of innervation through the vagi as the cause, inasmuch as their division suspended it. The Drs. Schott believe that the baths act directly upon the heart in the same manner from the triple stimulation of the temperature, salines, and CO_2. Dr. Douglas Powell would seem to be of the same belief, as, in speaking of tachycardia,[2] he says: "And doubtless, as in the very analogous cases of exophthalmic goitre, the strong brine baths of Nauheim, by their stimulating effect on the vagus centres, will prove of value." Now, so far as the evidence before us goes we are led to think that the baths have very little influence indeed in this direction, and that such as it is it is attributable slightly to the temperature, chiefly to the CO_2, and but little, if at all, to the salines. The diminution in rate and increase in strength of the cardiac contractions brought about in this way must be very slight indeed and altogether inadequate to bring about any gross change in the size of the heart.

Effect upon respiration.—It becomes more active. It diminishes slightly in rate, but becomes markedly deeper, and it is to be remembered that deeper breathing is much more effectual than more frequent breathing in carrying off the products of a more active internal respiration. An increased elimination of CO_2 and moisture and an increased absorption of oxygen will thus be brought about. This will no doubt directly influence tissue metabolism and nutrition, but may also increase the ordinary influences of respiration upon the circulation, by the more oxygenated state of the blood affecting the vaso-motor centre, by its influence upon the heart and bloodvessels brought about by nervous action and by its direct mechanical effect upon blood pressure. Thus deeper inspirations promote the return of the blood-flow through the lungs to the heart and deep expirations have an opposite effect. I therefore doubt if this intra-thoracic action can have any appreciable effect, but the compression of the abdominal viscera ought to facilitate the return of blood to the heart and so stimulate it by increasing its endocardial pressure.

Effect upon the blood.—Winternitz and his assistants found that cold baths produced an increase of the red blood corpuscles, and also of the white, with a 14 per cent. increase of the hæmoglobin. The maximum effect was sometimes manifested an hour afterwards and lasted often for two hours. Warm baths had the opposite effect. He does not regard this as due to new formation, but to increased activity of the heart and circulation and improved nerve tone, the red and white cells being thus driven out of the organs in which they are accumulated. Kellogg obtained corroborative results and agrees with this explanation. Grawitz agrees with the results, but not with the explanation. He believes that warm baths cause the blood to be less concentrated, acting by a stimulation of the vaso-motor nerve apparatus, leading to a contraction of the vessels preventing transudation of fluid into the tissues. So far I have been able myself to try this method, I have obta very little difference indeed from temperatures between and 85°, a trifling increase, but nothing more. It wo therefore appear that "the system" acts mainly by regul repeated alterations in the blood pressure, the distribu of the blood, the osmotic actions and the various exte and internal secretions. The natural ebb and flow betw cutaneous and internal vessels is brought more system cally and regularly into play. Such changes may undoubte stimulate tissue metabolism and lead to the correction vices and the establishment of improvements in gen nutrition. The heart will participate in these improvemer and it is well known that its beat varies largely in cor quence of changes in its own metabolism. There is evidence whatever to support claims which maintain a gr and direct influence upon the heart, whether by nerv channels or by greatly lessening the peripheral resistan There is, indeed, every reason to believe that although cutaneous vessels may be somewhat dilated, the gene sum of arterial pressure and hence the peripheral resista is actually somewhat increased. This seems to be entir in keeping with the improvement observed in the card conditions, for among the physical or mechanical circu stances of the heart which affect its beat the most import is perhaps the amount of distension of its cavities. T contractions of cardiac muscle, like those of any ot muscle, are increased by the resistance, within cert limits, which they have to overcome. A full ventri will contract more vigorously than one less distended, wh if the limit at which resistance is beneficial be passed over-distended ventricle will fail to contract at all. Th is yet one other influence which must not be lost sig of in any summation of the different methods of acti of "the system," and it is that of the mental factor, which, however, I feel loth to refer, as we have no means properly explaining or estimating it. The suffering lay even medical mind is markedly susceptible to the influenc of any line of treatment which can apparently offer su striking and rapid results by means so tangible, pleasa and easily understood. A patient convinced of his da improvement, and of his certain recovery in a few weeks lat is often already half cured. Much faith is a wonderf healer, and when it is accompanied by a complete chan and pleasant society, such as it is the duty of a health res to provide, it may work wonders, and we must be on g guard lest we give our treatment the entire credit of resu which it may have had very little hand in producing.

It will be necessary to say but a few words further special examination of the resistance exercises. The phys logical explanation underlying their action is simpler th that of the baths, to which they may prove valuable adjunc They may indeed at times prove useful when the baths a contra-indicated, but on the whole they are inferior to the both in range of applicability and in efficacy. They a sensible and well thought out exercises, excellently suit to accomplish their purpose of bringing each group muscles in the trunk and limbs into action in turn. Th substitute regular and graduated movements capable being perfectly controlled by the skilled attendant so as suit a considerable variety of conditions, for exercise, oft irregular, spasmodic, and ill-regulated, which the patie left to his own devices is apt to indulge in. When th employed so as not to overtax the patient at any o time their physiological action resembles that of all oth beneficial muscular exercise. There will be dilatation of t bloodvessels within the muscles, increased tissue metabolis and more rapid elimination of effete materials. This w gradually bring about a better general nutrition. I cann see how even the most gentle of such exercises can fail press upon the veins and favour the return of the veno blood to the heart. Dr. J. F. H. Broadbent thinks that th may occur. It is an ingenious suggestion put forward account for the diminution apparently observed in the si of the heart, which he believes is brought about by a lesse ing of peripheral resistance afforded by this means togeth with the vascular dilatation within the muscles. But if w deny this direct diminution in the size of the heart, as f the reasons already given I think we must, the suggestio becomes unnecessary, as also does the even more hypothetic and improbable one of Dr. Schott — viz., reflected vag stimulation brought about by *afferent impulses* carried to th cardio-inhibitory centre by means of the *motor nerves*. W know of nothing which leads us to place such a differenc

[2] Brit. Med. Jour., Nov. 10th, 1894, p. 1039.

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between gentle and vigorous muscular exercise. They must both hasten the circulation, and favour, although in different degrees, the return of the venous blood to the heart. This will be most marked in the abdominal bloodvessels. Compression of the abdomen instinctively results with the employment of the resistance exercises. In this way an increased endocardial stimulation follows, and will naturally lead to an increased blood-pressure. It is possible that the vascular dilatation within the muscles is not compensated for by a corresponding contraction in bloodvessels in other regions, and is, besides, greater in amount than that of the increase due to the quickened venous flow. Some observations of Dr. Lauder Brunton in his Harveian Oration of last year seem to support this. There would in this case be an actual lessening of peripheral resistance and a diminution in blood-pressure, but this is rendered improbable by the decrease in rate and increase in strength of the pulse.

The physiological problems raised by "the system" are both many and complex, and there must be much still hidden from us which the future may reveal and which may bring about a more perfect understanding of its actions. So far as they are at present known to us it is readily seen that its scope of application is far wider than that of any individual drug; but to assert its applicability to all classes of cardiac derangements, reserving only advanced arterio-capillary sclerosis, aneurysms, and serious myocarditis, is surely in so many words to proclaim its impotence. It is but natural that it should fail. Evil habits of nutrition which measure their existence by months or years are not to be got rid of by one or even two courses of "the system" of a few weeks' duration at Nauheim or anywhere else. I have already met with failures and recurrences such as the present literature of the subject makes no mention of, and they have but served to increase my belief in its value when used in suitable cases. While we remember that it is capable of doing much good we must not forget that it is also capable of doing harm. It has now been sufficiently proved to warrant its trial in suitable cases, but they must be chosen with judgment. To use it rashly and with too great expectations is certain to lead to disappointment and to reflect injuriously upon the system itself. Moreover, as at present enunciated it does not seem to me to be as useful as it might be. It is at once too wide and too restricted: too wide in its claims and too restricted in its limitations. Why, for instance, should we pause at 86° F.? Why not go further in suitable cases and make use of the well-known effects of still lower temperatures, inasmuch as we can so easily regulate their influence by the duration of time we employ them? The resistance exercises are good so far as they go, but why should they not be combined with massage or passive or active exercises of different kinds? Eccles, Campbell, and others have testified to their value. An intelligent use of dumbbells and other gymnastic appliances ought to prove quite as effectual as the resistance exercises themselves, and they have done so in my hands in the opportunities I have so far had of putting them into practice.

I have herein endeavoured to lay before you the lines of a sound physiological working of this "system" which promises to prove a valuable remedy in many cases of chronic heart disease, but whether I have succeeded or not I am not without hope that I have prepared the way for the clearer understanding and appreciation of its applicability and usefulness.

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Edinburgh.

A CASE OF MOTOR PARALYSIS DU CERVICAL CARIES TREATED B LAMINECTOMY.

BY FLETCHER BEACH, M.B., F.R.C.P. Lo

PHYSICIAN TO THE WEST-END HOSPITAL FOR DISEASE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY; FORMERLY SUPERINTENDENT OF THE DARENTH SCHOOLS FO IMBECILE CHILDREN;

AND

EDWARD COTTERELL, F.R.C.S. ENG

HONORARY SURGEON TO THE WEST-END HOSPITAL FOR THE NERVOUS SYSTEM, PARALYSIS, AND EPILEPSY.

A GIRL aged thirteen years was admitted West-end Hospital for Diseases of the Nervo Paralysis, and Epilepsy on May 4th, 1895, und of Dr. Wallis Ord, to whom we are indebted sion to publish the case. The maternal gran died from phthisis and the maternal uncle wa Three male cousins had died from scrofula a cousin (living) was affected with it. The fathe and the patient's brothers and sisters were h patient was a fair-haired girl, well grow disease of the cervical vertebræ. The pupils dilated. There was paralysis of the right a complete on the ulnar side, which is said to nine weeks before admission and was attrib The right hand was cold and blue. There wa

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epileptic fits. There was a mark of an old scar, due to the removal of an enlarged gland five years ago, on the right side of the neck, and some enlarged glands could be felt in the neighbourhood of it. There was no tenderness of the neck. On examining the pharynx by means of a finger introduced behind the soft palate a distinct projection forwards produced by the consolidation of the bodies of the cervical vertebræ could be felt. The head had become fixed eighteen months before admission and could only be slightly moved. The patient could feed herself with the left hand but by degrees lost power in it. Gradually she lost power in her legs, first in the right and then in the left, dragging them as she walked. On June 16th galvanism to the spine was ordered, but as she seemed to get worse under the treatment it was stopped. Mr. Cotterell saw the case towards the end of June, 1895, and found the girl was the subject of an old cervical caries, with a certain amount of consolidation and welding of the bodies in front. There was no evidence of any post-pharyngeal abscess or acute mischief of the vertebræ. As the paralysis was rapidly becoming worse laminectomy was decided upon, with the idea of relieving the pressure upon the cord. This operation was accordingly performed by Mr. Cotterell on July 1st, the laminæ and spines of the fourth, fifth, and sixth cervical vertebræ being removed. The dura mater bulged somewhat posteriorly when the laminæ were taken away. The most careful search in front of the spinal cord failed to find any button granulations or evidence of dead bone. The dura mater was not opened. The skin and muscles were brought together with sutures and the wound healed by first intention. The subsequent progress of the case was briefly as follows. On July 3rd she moved the left hand. On the 7th she moved the left hand and arm and held it up. On the 10th she moved slightly the right hand. On the 15th she could raise the right hand and arm above the head. On the 16th there was still more power in the right hand and arm. On Aug. 5th she sat up for an hour; both hands were cold. On the 8th the right hand was cold and the left hot. She had regained power in both legs. Soon afterwards she was discharged, but came to the hospital for examination on Oct. 25th. She had full power over the limbs and sensation was normal. There was no pain or tenderness of the neck. She could move the head, but only slightly. On Oct. 30th she was readmitted, and massage was ordered to the neck as there was still some stiffness; this disappeared under treatment. On Feb. 6th, 1896, Dr. de Watteville kindly tested the muscles of the right arm and forearm for us, and the following is his report: "Reaction of degeneration in all the muscles of the arm and forearm. Some of the intrinsic muscles of the hand still unexcitable to faradaic currents of fair strength. The nerve trunks begin to react to induced currents better than the muscles themselves."

Clinical Notes: MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

RUPTURE OF THE TERMINAL EXPANSION OF THE EXTENSOR COMMUNIS DIGITORUM.

BY WALTER KIDD, M.D. LOND.

THE Clinical Note by Dr. F. G. Wallace in THE LANCET of Feb. 29th under the above heading describes a small accident of a somewhat rare kind of which I have met with two cases. These may be worth recording, as they extend over a longer period of time than the case of Dr. Wallace, and in each case recovery took place, the power of extension of the ungual phalanx being regained long after all treatment had ceased.

In the more recent case a man about fifty-five years of age fell while ascending some steps, and putting out his right hand to save himself injured his ring-finger. I saw him within an hour or two of the accident and found the same condition as that described by Dr. Wallace—viz., that the terminal phalanx of the right ring-finger could not be extended beyond an angle of about 130°, and there were some swelling and pain in the joint. The finger was placed in a splint, and at the end of a fortnight this was removed and reapplied, as the joint was in the same faulty position and distinctly inflamed. After three weeks, no improvement being manifested, the patient refused to wear the splint any longer on account of the inconvenience occasioned by it in his occupation, which involved architectural drawing. Two or three months later the joint was still inflamed slightly and no more extension was possible than at first. When I last saw this patient, eight months after the accident, the joint had practically recovered its power of extension without further treatment. A similar result occurred in a similar case, the patient being a younger man; the power of extension of the finger being completely regained after several months, when all treatment had been suspended.

Blackheath.

AN ADDITIONAL SIGN GIVEN BY PLEURAL EFFUSION.

BY T. H. KELLOCK, M.D. CANTAB., F.R.C.S. ENG.,
MEDICAL SUPERINTENDENT OF THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET, W.C.

ALTHOUGH as a rule the signs given by a collection of fluid in the pleura, whether serous or purulent, are definite enough to allow of an easy diagnosis, cases sometimes occur where the presence of lymph adherent to the visceral or parietal pleura, or thickening of the pleura itself, give signs which so closely resemble them that the differential diagnosis becomes a matter of some difficulty; it is in such cases that I venture to think the presence or absence of the physical sign about to be described may be of use. The patient should be standing or in the sitting position, with the head and neck inclined forwards so as to render the skin and muscles of the back somewhat tense. The observer stands on the left side of the patient and, placing the left hand flat and fairly firmly on the lower part of the thoracic wall just below the nipple, percusses sharply either with a finger of the right hand or with a pleximeter on the ribs of the same side, striking them just posterior to the angles, when if no fluid be present a very slight vibration of the rib which is struck posteriorly is felt by the left hand in front, but if there be fluid in the pleura the vibration of the rib is much greater, and if the quantity of fluid be at all considerable the difference between the sensations experienced by the left hand when examining the sound and affected sides is most marked. This description as to position of hands, &c. applies, of course, to cases where the effusion is of some quantity, but by changing the position of the left hand and the spot where the rib is percussed posteriorly I have been able to elicit and demonstrate this sign where the quantity of fluid was small; it requires a little practice, but when once the sensation is thoroughly appreciated it is easily recognised again. In cases of bilateral effusion there is not, of course, the advantage of a sound side for comparison, but even in such experience may tell the physician whether or no the vibration obtained is greater than it should be. My own experience in this matter has been entirely confined to children, whose chest-walls are generally lightly covered, and therefore favourable for the manifestation of this sign, but I hope that those who have the opportunity of trying it may find it of some service with adult patients also.

Great Ormond-street, W.C.

SUBLUXATION OF THE JAW IN A GENERAL PARALYTIC.

BY FREDERIC P. HEARDER, M.B., C.M. EDIN.,
ASSISTANT MEDICAL OFFICER TO THE WEST RIDING ASYLUM, WAKEFIELD.

SEVERAL cases of subluxation of the jaw occurring during epileptic fits have been recorded in THE LANCET and elsewhere, but, so far as I am aware, never as occurring during a seizure in the course of general paralysis.

A man aged thirty-eight years was admitted into the West Riding Asylum, Wakefield, in May, 1893, suffering from general paralysis. In May, 1895, being then in the second stage, he had a series of slight epileptiform seizures, during one of which he sustained double dislocation of the jaw forwards. It was reduced with considerable difficulty, an anæsthetic being necessary to overcome the spasm of the muscles, which were above normal. His jaw also is massive. Since then he has several times dislocated the jaw and the reduction has been comparatively easy.

Wakefield.

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A Mirror

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

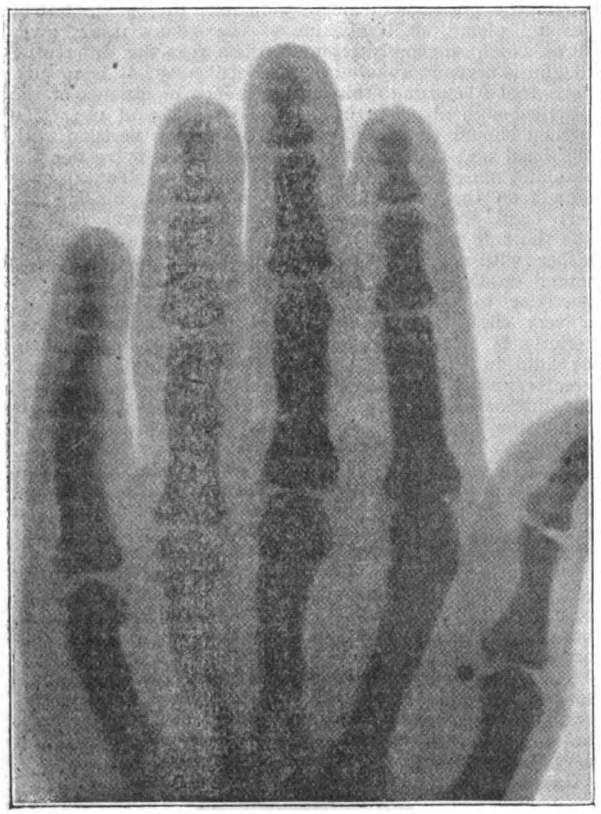
Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

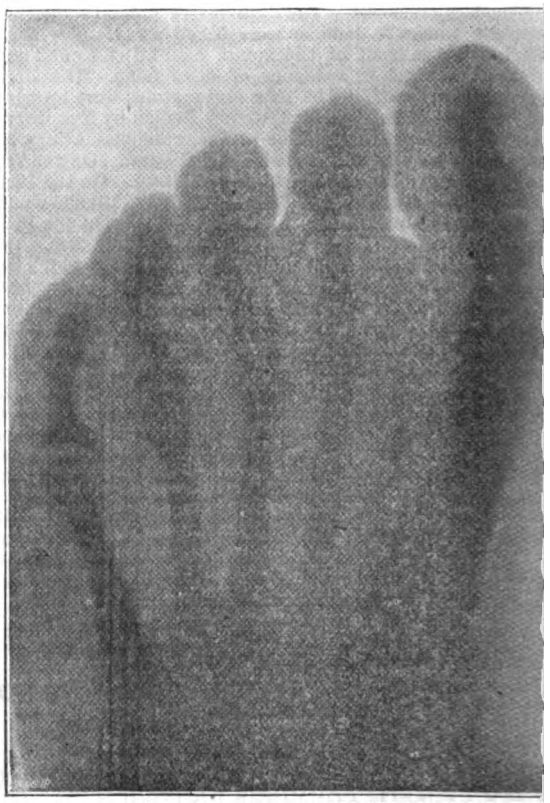
ST. MARY'S HOSPITAL.

A CASE OF ACROMEGALY.

(Under the care of Sir W. H. BROADBENT.)

NOT sufficient evidence is yet before the profession to make it possible to express a definite opinion upon the advantages to be derived from the administration of an extract of the pituitary body in cases of acromegaly. Sir William Broadbent's case improved under the treatment,





but the reservation made by Mr. Dodgson in reporting the progress of the case is a very proper one. The photographs are interesting as showing that the increase in bulk of the extremities was due to an overgrowth of the soft tissues, and not to any alteration in the bones, thus indicating a highly practical use for the new photography. It constantly happens that the exact remedial treatment of a limb—not in acromegaly so much as in many other conditions, tuberculosis for instance—depends upon a proper appreciation of the amount of structural change that has taken place in the bone; and the new photography should enable us often to arrive at that appreciation. For the notes of the case we are indebted to Mr. R. W. Dodgson, house physician.

A woman aged twenty-three years was admitted to St. Mary's Hospital on Feb. 8th, 1896. She complained of always feeling languid and sleepy and of progressive enlargement of the hands, feet, and face. Until three years previously she was of perfectly normal growth. She took size 3 in boots and her hands appeared to have been proportionally small. She always had the reputation of being a dunce at school, but managed to reach the fourth standard. She was otherwise lively and cheerful. About three years previously it was noticed that she was becoming languid and listless, frequently falling asleep at her meals. Her appetite became poor and she frequently suffered from nausea and vomiting, frontal headache, pains in the limbs, joints, &c. Previously her catamenia had been regular, but there had been complete amenorrhœa for the last three years. At the same time she noticed slight enlargement of the hands and feet, which had continued steadily ever since. Photographs taken during the last three years show this progressive enlargement. She had suffered from pain and tenderness in the feet on walking. There were numbness and impaired sensation in the hands, so that she frequently allowed things to fall. Her memory had failed a good deal. The enlargement of the face began about two years ago. Her sight appeared to have been normal until six months ago, when it began to fail. The family history was unimportant. On admission to hospital she was very dull and lethargic, taking considerable time to answer the simplest question. There was great enlargement of the hands and feet, the former having the characteristic spade-like appearance. The increase size of both the hands and the feet appeared to be entirely limited to their breadth and thickness, the of the feet being only about a quarter of an inch than a foot taking an ordinary No. 3 boot. The thickness and breadth can be seen in the illustrations are reproduced from skiagraphs. There was no ment above the carpus or tarsus. In the soft parts of the nose were enlarged and soft parts covering the upper and lower maxi ears and tongue were normal. The supercilia were not specially prominent. The thyroid gland what enlarged. The mammary glands were developed. The skin was soft, pliable, and n hair was somewhat coarse. There was complete h hemianopia of the left fields of vision, the temp the right and the nasal side of the left retina insensitive to light. The right fields of vision, in colour fields, were normal. There were no obvi in the fundi, or nystagmus. The pupil reflexes

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to accommodation and cutaneous stimulation, but there was hemiopic pupillary inaction to light stimulus on the blind halves of the retinæ. The skiagraphs of the hands and feet were kindly taken by Dr. A. P. Laurie and Mr. J. T. Leon, B.Sc., of St. Mary's Hospital. An exposure of three minutes for the hand and five minutes for the foot was allowed. It will be seen that the bones of both hands and feet appear to be normal in size, the hyperplasia being limited to the soft parts. The metatarsal bones are widely separated. On comparing these with skiagraphs of normal extremities the bones are seen to be about equal in size to those of a normal small-sized woman.

Remarks by Mr. DODGSON.—The case appears to be one of undoubted acromegaly, as it displays most of the classical features of this disease in a marked degree, and is of special interest inasmuch as it proves that the hyperplasia of bone tissues is not an invariable factor. The ocular symptoms are also of interest, homonymous hemianopia being unusual in this disease. This condition, coupled with the hemiopic pupillary inaction, would point to a lesion of the right optic tract, presumably pressure from a tumour of the pituitary body. The patient has been treated with tabloids of pituitary body and there has been considerable improvement in the mental condition; this, however, may be due to the relief of the obstinate constipation from which she suffered on admission.

TAUNTON AND SOMERSET HOSPITAL.

A CASE OF TETANUS TREATED BY TIZZONI'S ANTITOXIN; DEATH.

(Under the care of Mr. SAMUEL FARRANT.)

SOME months ago we reported in THE LANCET[1] a case of this disease treated by antitoxin obtained from the British Institute of Preventive Medicine. Death ensued on the fifteenth day after the commencement of the disease, but the treatment was not altogether without result, for it was noted that although the spasms did not cease they became markedly less numerous and less severe, but at the same time the patient grew weaker. In the following case there was no improvement apparent after the use of the antitoxin. For the notes of this case we are indebted to Dr. W. H. Maidlow, house surgeon.

A man aged twenty-four years was admitted to hospital in an alcoholic state on Feb. 9th, 1896, with a lacerated wound of the right palm and a compound comminuted fracture of the right leg at its lower third, both wounds being caused by the wheels of a heavy waggon. Not more than two hours after admission the leg was amputated through the upper third by lateral flaps and the hand carefully dressed, the ulnar artery requiring ligation. On the 10th the stump was dressed; there were signs of local traumatic gangrene. From this point this wound was daily irrigated and sloughs cut away, so that on the 22nd (at the time of death) it was beginning to look healthy. The wound of the hand never at any time looked unhealthy, but at the onset of symptoms of tetanus it was kept soaked in a 1 in 2000 solution of perchloride of mercury. The temperature between the 10th and the 17th varied from 101° to 99° F., but the man looked ill, with dark rings round the eyes, and there was a faint trace of albumin. On the 17th his jaws felt stiff; on the 18th there were obvious trismus and risus sardonicus and a transverse wrinkling of his forehead gave him a surprised look. Ten grains of antitoxin (British Institute of Preventive Medicine) some months old were injected. On the 19th spasms supervened on deglutition. Thirty grains of Tizzoni's antitoxin were dissolved in six drachms of distilled water and injected into the back. During the day increasing rigidity of the cervical muscles was noticed. As spasms occurred on deglutition and nasal feeding he was hence-forward fed per rectum every four hours, with two or three pints of fluid by nasal tube, under chloroform, once daily. On the 20th the patient was worse. He had some sixteen attacks of general rigidity marked by extreme opisthotonos during the day, with trismus, risus, and cervical rigidity in the intervals, and profuse sweating. The temperature was 103°; a rash more like miliaria than the usual antitoxin (diphtheritic) erythema on the chest was also noticed. Ten grains of antitoxin were injected. On the 21st the attacks became more frequent, with great mental anxiety. Eleven grains and eight grains were injected with no relief. (A each injection no difference in the temperature was noti in fact, no difference in any respect was observable.) In evening there was relaxation of the jaws and he c swallow almost painlessly; he preferred to pay some comfort for a drink. During the night he became conscious, the pulse failed, and he died cyanosed aft series of convulsions.

Remarks.—As regards the treatment, all that can logically said is that this particular case treated in particular way showed not the slightest sign of any impr ment, and it must take its place amongst the many o acute cases that have now ended fatally despite remedy. The drug costs 45*s.*, per four and a grammes against the 6*s.* for the same amount m by the British Institute of Preventive Medicine, but would pay any price for a chance of relieving this he rending disease. In all fifty-nine grains were injec during the four days. No local effects were noticed; fact, as stated before, the man might just as well, far as signs were concerned, have had no antito The relaxation of the jaws noticed on the 21st has b noticed in cases not treated by antitoxin, and is probabl sign of muscular exhaustion, and may even be considere bad augury. Seeing that the leg was amputated so s after the injury it seems likely that infection came from wound of the hand; the local gangrene, indeed, was m unfortunate, for the large area of suppuration must h militated against recovery, but at the operation the tissues through appeared to be healthy. No necropsy was made; tetanus bacilli were found in either wound. At the inq the coroner asked the pertinent question whether infect could have occurred from the previous case, but the bed been well fumigated; this patient occupied another bed, very many wounds treated during the intervening four mon had done quite well. We did not consider amputation the hand indicated with the patient in his then conditi probably no fresh poison was being absorbed. Shoul similar case occur doses of double the quantity and in venous injection would be worth a trial.

[1] THE LANCET, Dec. 7th, 1895.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Antiseptics in Infantile Diarrhœa.—The Effects produced the Retention of Foreign Bodies for Lengthened Periods the Bronchial Tubes.

AN ordinary meeting of this society was held on March 24 the President, Dr. W. HOWSHIP DICKINSON, being in chair.

Dr. J. A. HAYWARD and Dr. CHARLES BUTTAR rea paper on Antiseptics in Infantile Diarrhœa. The object the paper was to inquire into the part played by mic organisms in the production or prolongation of infan diarrhœa and how far the administration of antiseptic dr could claim to be a rational mode of treatment. significance of micro-organisms in the healthy aliment canal of infants and adults was discussed in the light experimental researches (chiefly by Brieger, Escherich, MacFadyen), and disturbance of the equilibrium wh obtained between their activity and life history and normal digestive functions was suggested as a disposing and exciting cause of diarrhœa. On clinical side an attempt was made to justify the of antiseptics in infantile diarrhœa, in spite of the inco plete though suggestive nature of bacteriological researc Granting this justification, the necessity of forming so conception of the mode of action of bacteria as factors the causation of diarrhœa was insisted upon before a septics could be employed rationally in treatment; otherw misapplication of the remedy and confusion in noting results were likely to occur. As a working hypothesis it w suggested by Dr. Hayward and Dr. Buttar that the mode action of micro-organisms in connexion with diarrhœa mig be arranged as (1) irritant, (2) toxic, and (3) infecti the ultimate effect in each instance being brought about the harmful products of their activity. In support of t

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classification reference was made to certain food-poisoning epidemics and their analogy with summer diarrhœa and cholera infantum was pointed out. The use of bearing this classification in mind in practice was shown. It was a help in deciding when antiseptics might be expected to be of service and when nothing could be expected from them. The best success was obtained by employing them in some of the acute forms of summer diarrhœa and in chronic diarrhœa when bacterial agency might be suspected as a factor in the initiation or prolongation of the disease. The evidence of bacterial agency was then briefly discussed from a clinical point of view, and, if present, how far it might be worth considering in treatment. The antiseptic treatment was discussed under two heads: (1) diet; and (2) antiseptic drugs. Under (2) the object of their administration was considered, the requirements essential for an intestinal antiseptic, the drugs which in part fulfilled these requirements, and certain points in their selection and mode of administration. Experimental researches by Dr. Hayward and Dr. Buttar as to the influence of some of these drugs on the growth in artificial cultivation of proteus, bacillus coli, and the bacillus isolated in the Portsmouth epidemic by Dr. Klein were brought forward. The paper concluded with some considerations which had been found useful by them in diagnosis, prognosis, and treatment in infantile diarrhœa. — Dr. DAWSON WILLIAMS said the profession should be obliged to anyone who attempted to introduce order into chaos when dealing with the diarrhœal diseases of infancy; but he doubted if Dr. Hayward and Dr. Buttar had materially advanced their knowledge of the subject, for 99 per cent. of the cases met with in hospital fell into their second class. The question raised long ago by Pasteur whether an animal could live upon an absolutely aseptic diet had curiously enough only been solved the other day. In Hoppe-Seyler's *Zeitschrift* it is related that an experiment performed with a guinea-pig resulted in success. After a preliminary abdominal section and cleansing the animal was fed on aseptic food and supplied with aseptic air. At the end of nine days the experimenters, worn out with watching, had to kill the animal, but it had meanwhile remained in health, gained weight, and was found afterwards to be quite aseptic. A certain amount of discredit had fallen on intestinal antiseptics because those who had first used them had talked of intestinal antisepsis which was impossible to obtain. In acute summer diarrhœa these drugs were of no use, but in the more chronic forms of diarrhœa they were of great value. He agreed that naphthalin was useful. He had obtained good results from salol, but that drug, so far as the intestine was concerned, was carbolic acid; and he thought that better results could be obtained by the use of carbolic acid itself. He differed from the writers who said that this drug was most useful in the upper intestinal canal, for, on the contrary, he had found carbolic acid most useful in cases which were presumably instances of colitis.—Dr. KINGSTON FOWLER related a clinical experience which he thought should make physicians careful of attributing improvement to the administration of drugs. He was called to see a woman who suffered from severe diarrhœa and a peculiarly offensive odour which not only impregnated the stools, but apparently came off from every part of the patient's body. He suggested that salol should be given in cachets and the patient should be removed to another house. The patient was removed, but the salol was given in tabloids. In three days the patient was practically well and fetor had disappeared from the motions, but in the latter all the tabloids were discovered undissolved and unchanged.—The PRESIDENT said that Dr. Hayward and Dr. Buttar had made no mention of foul gases as a cause of diarrhœa. He had seen many cases due to this and the best treatment was to move the child somewhere else, where there were different water, milk, and air. In the form of diarrhœa associated with very fetid motions he had seen the greatest benefit follow the administration of creasote.—Dr. HAYWARD, in reply, said that the insolubility of tabloids had driven him back to the administration of fluid drugs. He did not see how the mechanical removal of a child from one house to another would cleanse its intestine of pathogenic organisms.—Dr. BUTTAR also briefly replied.

Mr. R J. GODLEE read a paper on the Effects produced by the Retention of Foreign Bodies for Lengthened Periods in the Bronchial Tubes. The following cases had been chosen as typical of the sort of result which might be anticipated if foreign bodies of different sorts were retained for periods of varying length in the bronchial tubes. 1. A boy aged sixteen years, who inhaled the peg of a peg-top seven years and a half before, and had developed bronchiectasis. Various operations were detailed that were undertaken for its removal, and the final expulsion of the peg-top peg through the opening made into one of the bronchiectatic cavities. The boy seemed to have recovered. 2. A boy aged six and a half years, inspired a small ivory knob, which was retained for eight weeks. It set up extensive bronchiectasis, but there was nothing to suggest the presence of any one large cavity, and thus it did not appear that anything was likely to be gained by surgical interference. The boy at first did not improve, but later reports were more favourable. 3. A boy aged four years developed bronchiectasis as the result of inhaling the vertebra of a rabbit seven months before. A cavity was opened. Ultimately the bone was coughed up. During the eight years that had elapsed much improvement had taken place, but there was still evidence of a basic cavity. 4. A youth aged seventeen years inspired an ear of corn into a bronchus. Acute dilatation of the bronchi and gangrene of lung, with burrowing of pus, supervened, from which the patient died. 5. Another case, previously reported, was referred to in which a tooth lodged in a bronchus set up bronchiectasis. Many attempts at removal failed, and the patient died of tubercle engrafted on to his primary disease. The pathology of these cases was briefly considered, and the advisability of making careful inquiries as to the possibility of a foreign body having been inhaled in cases of unilateral bronchiectasis was insisted upon. The question of prognosis was also dealt with and certain rules for treatment were laid down.—Dr. KENNETH MCLEOD referred to an instance which came under his notice in the Durham County Asylum some years ago. A delicate, demented lad was admitted with all the signs of phthisis, and it was thought during life that cavities existed in his left lung. He died ultimately from exhaustion and at the necropsy there was found lodged in the left bronchus a small piece of sheet tin, which had been folded up into a square with somewhat rounded edges and had a diameter of about a half to three-quarters of an inch. The lung below was in a condition of general bronchiectasis, the tubes being filled with muco-pus. The lung was indurated and condensed and there was no evident tubercle and no local ulceration opposite to the point of lodgment of the foreign body.—Dr. NORMAN MOORE mentioned that Dr. Richard Morton, in his "Phthisilogia," published about 1690, referred to the case of a man whose occupation it was to nail things up on walls and who breathed in three nails. It was a week before he showed any symptoms and he died in a month. From the description of the necropsy one could gather that the bronchi were considerably dilated and that there was extensive purulent pleural effusion. A man was admitted into St. Bartholomew's Hospital who "lost down his throat" the end of a clay pipe. He was attacked by coughing and died from hæmorrhage. Post mortem the end of the pipe was found sticking in the tissue behind the tonsil and it had induced sloughing which opened into the tonsillar artery. Another man entered St. Bartholomew's Hospital and one side of his chest was found to be resonant, but no breathing was heard. He died in three days, and the thick end of a pipe was found lodged in one of his large bronchi. There was no history of how it had got there. Gangrene of the lung proceeded very rapidly in that case.—Mr. WARRINGTON HAWARD said that the writer had enforced the necessity of persistently endeavouring to remove the foreign body when once it had gained entrance. The insignificance of the symptoms had often led to scepticism as to the inhalation or the swallowing of a foreign body. It should be remembered that the passage of a foreign body through the nose was one way in which it might reach the larynx, and he had recently removed such objects as a screw and the leg of a small china doll from the nostril of a child. A few days ago at St. George's Hospital a large and long vulcanite tracheotomy-tube became detached from its plate and dropped into the left bronchus of a man who was the subject of malignant disease of the larynx. The man suffered no inconvenience from the tube, and it was removed two days later through the tracheotomy opening by means of the forceps which had been made for Brodie to extract the half sovereign from Brunell's trachea.—Dr. SOLOMON SMITH mentioned the case of a child eight years of age, who was said to have "swallowed" the whistle of a toy balloon. It at first lodged in the throat, and when

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he breathed it whistled, but the whistling sound disappeared after an emetic had been administered. There was found to be absence of respiration in the lower half of the right lung He was inverted and slapped, but nothing happened. After nine or ten weeks he began to get thinner, and after three days of cough and expectoration he brought up the whistle. This happened about twenty years ago, and fifteen years later he examined the patient for life insurance, and he could then find no trace of difference between the two lungs.—Dr. J. K. FOWLER said that the pulmonary changes were often extensive in these cases. The bronchiectasis was usually of the fusiform variety, the tubes being thickened and the surrounding lung indurated. It was often difficult to localise the exact position of a cavity. It could generally be taken for granted that if there was no definite history of pleurisy then there would be found no pleural adhesions. The symptoms usually followed a definite course, beginning with cough and expectoration, the latter becoming fœtid, then pleurisy and progressive emaciation, and later still diffuse broncho-pneumonia followed by gangrene. There was no doubt that every effort should be made to dislodge the foreign body as soon as possible.—The PRESIDENT wished to relate the details of two cases which had been under his notice at the Hospital for Sick Children more than twenty years ago. The first was that of a boy four years of age who "swallowed" a roasted pea; at least, he said that it jumped down his throat. One lung was found to be in a condition of bronchiectasis, and many attempts were made to get the pea out. Over a dull area a small exploring needle was passed in several times, and then a large aspirating needle was used, but with negative result. Later Mr. R. W. Parker, who was then house surgeon, was called up one night, and he found that the boy was dead on arrival. The death occurred four months after the inhalation of the pea. Post mortem the left lung was found in a condition of bronchiectasis, and the pea had occluded the left bronchus, lodging in a recess in its side; it had become dislodged from thence into the main air channel. In the second case a boy aged eleven had swallowed a piece of vegetable ivory belonging to a toy. He was seized with a choking, then came cough with fœtid expectoration of pus and blood, with signs of left bronchiectasis. Mr. Thomas Smith, Mr. Morgan, and Mr. Parker tried inversion repeatedly, and the boy was thumped on the back in this position until he was sick. Tracheotomy was afterwards performed, and he was again repeatedly inverted; a long wire armed with a hook was passed deeply down the tubes, but nothing was brought away. The boy got better and left the hospital, and after eight years Dr. Abercrombie saw him and found that he was expectorating a quantity of fœtid matter about six times daily, but was nevertheless in fair health, though he was undersized and his breath was constantly fœtid.—Mr. GODLEE, in reply, said that while the foreign body remained the child was always in danger of suffocation. Patients should not be inverted and shaken unless tracheotomy was actually done or was ready to be done. He endorsed the statement that very slight disturbance might follow the lodgment of a tracheotomy tube in the bronchus. Not long ago he saw a case in which a new vulcanite tube had become detached from its shield and had lodged in the bronchus. There were at first no signs, but after three days slight physical signs declared themselves. He then passed in a pair of long curved forceps through the tracheotomy wound and extracted the tube without difficulty.

MEDICAL SOCIETY OF LONDON.

Four Cases of Early Extra-uterine Gestation.—Ten Cases of Extra-uterine Fœtation.

AN ordinary meeting of this society was held on March 23rd, the President, Sir JAMES CRICHTON BROWNE, being in the chair.

Mr. ALBAN DORAN read a paper on Four Cases of Early Extra-uterine Gestation, which we publish in full in this issue.

Mr. HARRISON CRIPPS read a paper on Ten Cases of Operation for Extra-uterine Fœtation. He considered that it had not yet been established that extra-uterine fœtation commenced anywhere except in some portion of the Fallopian tube. As the fœtal sac enlarged it protruded either into the abdominal cavity or, growing downwards, separated the layers of the broad ligament widely. When rupture took place into the abdominal cavity the hæmorrhage was large number of cases very severe and not infrequently le the death of the patient in a few hours. On the other ha when the blood was poured downwards between the laye the broad ligament it would spontaneously cease, as t could only be separated to a limited extent. A third dition, probably more common than either of the other t was found. In this the blood was so poured out that it encysted in Douglas's pouch. It was probable that in th cases some localised peritonitis was in the first place set by a slight oozing or irritation, and thus the general cavit the peritoneum was shut off before any extensive pouring of blood occurred. When the sac burst into the peritone pain, though severe, was not so intense as when the bleed was into the broad ligament. On the other hand, the gen symptoms were graver, doubtless due to a larger amount blood being lost. These cases were almost invariably f if the bleeding was not arrested by abdominal section. Ab minal palpation failed to detect any tumour, but the abdor was tender, and there might be dulness in the flanks. finger in the vagina might detect some fulness in Dougl pouch. In intra-ligamentous rupture the pain was usu more severe and of a paroxysmal character, resembl labour pains. Symptoms of hæmorrhage were not marked. A tumour might be detected by abdominal pal tion, and by vaginal examination the pelvis was found to partly filled by a tumour, which was situated to one side the uterus and displaced that organ to the other side. rectal examination a marked constriction was often fo about four inches from the anus. When the rupture t place into Douglas's pouch there might be an absence of sudden acute pain followed by collapse, which was characteristic of the other two varieties already mention An examination per vaginam disclosed a swelling wh lay behind the uterus in Douglas's pouch. As to question of operation in ruptured extra-uterine fœtation cases of rupture into the peritoneal cavity these should alw be operated on. In rupture into the broad ligament, if th were no evidence of any increase of the swelling, and if general symptoms did not indicate a continuance of hæmorrhage, such cases were best left alone. If, on other hand, the symptoms of hæmorrhage continued, o the swelling increased in size, with an exacerbation pain, an operation should be undertaken. In hæm rhage limited to Douglas's pouch, since the diagn must always be doubtful until the abdomen had b opened, Mr. Cripps did not hesitate to advise an ope tion. When the tube had ruptured into the peritor cavity he gave details of the operation he perform The peritoneal cavity was afterwards thoroughly washed o No drainage was as a rule employed. When rupture l occurred into the broad ligament or was limited to Dougl pouch he related the procedure he adopted. If all the bl clot could be removed no drainage was employed, but much ragged tissue was left behind a glass drainage-t was used. In extra-uterine fœtation with a living child following courses were open to the surgeon: (1) to oper at once and remove the fœtus; (2) to wait until near natural time with a view to removing a living child; and to wait till the death of the child after its full ti Mr. Bland Sutton's statistics seemed to show that unl untoward complications were present the operation sho be deferred until after the death of the fœtus, this being safest course for the mother. Notes of ten cases operated by Mr. Cripps were given. There were nine recoveries a one death.

Dr. LEWERS said that the great point which frequen arose was what was the precise indication for operation any case under consideration; for though a certain num would recover without operative treatment yet others p sented acute symptoms and if left without operation mi perish. He referred to a case he saw on March 19th. T patient was a woman aged thirty-four who had not m struated for two months. Her last pregnancy occurred f years ago. For a fortnight she had complained of pains the abdomen accompanied by feelings of faintness. On t 19th there was severe pain which produced faintness, so th she had to be assisted back to bed. On examination s seemed to be very ill; the uterus was enlarged and there w an indefinite swelling behind and to the right side. Th night, the pulse being quicker and the patient worse, t abdomen was opened and was found to be full of clot; rupture of the right tube was found which was still bleedi The left tube was also dilated and contained blood, and

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both were removed. He put in a drainage-tube because some two years ago he had treated a case of similar character without a tube and the patient had a tedious convalescence. The appearance and feel of the breasts were often of value in assisting to form a diagnosis of early extra-uterine pregnancy.

Dr. ROUTH said that he had read a paper on this subject many years ago before the Obstetrical Society. Mr. Doran had implied that hæmatocele could not occur apart from pregnancy, but he had seen many cases which disproved this. One of the most valuable of the breast changes was the discolouration that occurred in the region of the areola. The discharges from the patient should always be carefully examined with a view to the discovery of a decidual membrane. He advocated the use of the binaural vaginoscope in doubtful cases.

Dr. LEITH NAPIER desired to speak from the point of view of diagnosis. In addition to a swelling on one side of the uterus there was often a marked pulsation in the uterine artery of that side, and the presence of this sign had helped him in one case to a correct opinion. He believed that there were cases of hæmatocele which were not due to ectopic gestation; there were many certainly in which the existence of pregnancy was "not proven." In one case shown by Dr. Griffith at the Obstetrical Society a decidual cast was passed and on the strength of it laparotomy was performed, but nothing was found, and the patient recovered. There was difference of opinion as to the treatment of the placenta; when it could be easily removed without alarming hæmorrhage it ought to be done; in other cases the cord should be cut short and the abdomen closed with gauze packing; in a few days the abdomen could be opened and the gauze removed.

Mr. BRUCE CLARKE said that the case referred to as recorded by Dr. Griffith was operated upon by himself. The diagnosis was arrived at on the ground that such an excellent decidual membrane was passed. He mentioned a case of acute peritonitis to which he was called which came on slowly and culminated in intestinal obstruction. He found a collection of pus in the pelvis, which he evacuated, and the abdomen was washed out. The patient gradually sank from exhaustion, and post mortem a ruptured extra-uterine pregnancy was found to be the cause of the suppuration.

Dr. HERBERT SPENCER remarked that the sac often appeared to be in the broad ligament, but a careful study of such specimens had led him to think that, like the so-called ovarian tumours of broad ligament, their boundary was really formed by adhesions. As to the nature of the cyst wall, he believed it to be formed by the organisation of the outer layer of the blood-clot, and such organisation could proceed extremely rapidly. It was remarkable that very few cases of early extra-uterine gestation died if left alone. A large proportion must terminate successfully without operation if one remembered the few cases one formerly saw post mortem. As to the treatment of extra-uterine gestation with living fœtus, these were rare cases. He had himself seen two which terminated fatally. In future if he met with a case in which the sac contained a living fœtus he would operate at once. In the first case he had seen there was great pain and the head was in Douglas's pouch. He cut down on to the placenta, which he rapidly removed entire, but there was furious hæmorrhage. This was arrested by sponge plugging, but the patient died of syncope the same night. In the second case there was a living fœtus of the fifth month, when the first signs of pain occurred. At the seventh and a half month there were signs of rupture of the sac, and he operated, cutting off the cord close to the placenta, but not detaching the latter. The patient died within twenty-four hours of an acute form of sepsis, which he believed resulted from the placenta being left behind.

Mr. MALCOLM said that anyone who had seen these cases must admit their serious nature, for when the abdominal cavity was opened it was often found full of blood. Though some might do well without operation, yet there was great risk in leaving them without interference. It frequently happened that there were second hæmorrhages, and in any one of these the patient might become moribund. He had seen one case in which the sac ruptured into the bowel, and thus led to a condition almost hopeless from a surgical point of view. He referred to the case of a patient who was married on Dec. 28th; towards the end of February she was supposed to miscarry; ten days later, while apparently well and at breakfast, she was seized with severe pain; since then she had had frequent attacks, causing faintness. A large, soft mass filled the pelvis with the uterus in front, and he believed it was an instance of extra-uterine gestation.

Mr. SHEILD had seen three cases where the gestation had been allowed to go on to full term, and all were then removed successfully so far as the mother was concerned. In one case the sac had burst into the bowel, and the whole of the fœtus was extracted from the rectum piecemeal. The second was removed per vaginam from the pouch of Douglas. In the third case a mature fœtus sloughed through the abdominal wall and was removed.

Mr. DORAN, in reply, said that he thought the absence of breast signs in some of his cases was accounted for by the fact that they were very sickly people. He could not deny the possibility of hæmatocele without pregnancy, but the majority of hæmatoceles showed chorionic villi. In all his cases the stage was too early for auscultation to be of value, and, besides, rupture had occurred before he had seen them. He had often found marked pulsation of the ovarian artery in cases of suppurating tube. A false capsule was a dangerous thing, because a surgeon, thinking he was working safely within a capsule, might really be tearing up important structures. He agreed that it was inadvisable to remove the opposite tube and ovary unless necessary because of disease; but if adhesions were present they should be gently separated. He thought that the most valuable sign of extra-uterine gestation was the sudden development of a mass on the right side of the uterus accompanied by pain.

Mr. CRIPPS, in reply, said that the passing of a decidua was not necessarily evidence of extra-uterine gestation, as was apparent from the case already quoted. He had never used the instrument spoken of by Dr. Routh. In one of his cases after removing the fœtus he found a hole in the sac communicating with the rectum. As to the question of operating with living fœtus, it was a mistake to leave it too long, owing to the danger of ulceration into the rectum.

HARVEIAN SOCIETY OF LONDON.

Nauheim and the Schott Treatment of Diseases of the Heart.

A MEETING of this society was held on March 19th, Dr. WILLIAM HILL, Vice-President, being in the chair.

Dr. BOWLES read a paper on Nauheim and the Schott Treatment of Diseases of the Heart, in the course of which he stated that twenty-two years ago Dr. Hermann Weber had transferred to his care at Folkestone a serious case of heart disease with general dropsy, effusion into the pleural and peritoneal cavities, and enlarged heart and liver. The usual treatment had been previously fully carried out with no benefit whatever, but as a last resort a course of sour milk was tried, and all dropsy disappeared except from the abdominal cavity, where effusion persisted in spite of all efforts for its removal, including five tappings. On Dr. Weber's advice the patient was then sent to Nauheim, and in a month he returned perfectly cured. Recently published statements had again drawn Dr. Bowles' attention to Nauheim, and with an open and somewhat sceptical mind he went there to judge for himself whether it were possible that the diminution of the heart's size (when increased pathologically) could be uniformly brought about in a short time and could be always accurately measured in centimetres. He had long ago been convinced that hearts, healthy and diseased, constantly varied in size and, like the iris, the uterus, the arterial system, the abdominal viscera, and all parts supplied with involuntary muscular fibre, were amenable to specific medicinal agents and to physical influences such as heat, cold, light, electricity, and so forth. During the last thirty years he had collected a large number of observations on this subject, especially on localised and changing dilatations of the larger vessels. While at Nauheim last year he had ample material at his disposal, and every possible kindness and assistance from Dr. Schott and Dr. Heineman. These gentlemen never attempted to influence his observations in any way; indeed, they insisted that he should take his own course and judge for himself. He directed his attention strictly to the following points:—1. Was it possible to reduce the size of a dilated, enlarged, and diseased heart in a few minutes—(*a*) by baths, (*b*) by exercises? 2. Was this reduction, if produced, beneficial, and could it be rendered permanent? 3. What was the state of the heart before

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and after a course of treatment? It was of the first importance to define well the size of the heart and its relations before and after baths and exercises and before and after a course of treatment; and these points were accordingly subjected to careful experiment. Cases of all these conditions were related and tracings of the actual relations of organs at the time of the respective observations were shown.

CASE 1.—This was a male patient who suffered from chronic myocarditis, with marked dilatation of both ventricles, slight effusion into both pleural cavities, general anasarca, albuminous urine, and a suspicion of incipient tabes. His heart was much enlarged, the apex beating five and a half centimetres to the left of the nipple, and the area of the cardiac dulness was enormous. After twenty minutes' exercises there was a remarkable diminution of the area of cardiac dulness and a shifting of the apex two and a half centimetres nearer to the left nipple and one centimetre lower down, the change being distinctly appreciable to the finger. After a month's treatment the albumin and all signs of dropsy disappeared, the area of cardiac dulness was normal, the patient could walk freely uphill, and said that he felt perfectly well.

CASE 2.—This patient was the subject of marked mitral stenosis with extreme dilatation of the auricles and had a previous history of rheumatism and pleurisy. Before a bath of ten minutes' duration the apex beat eight and a half centimetres to the left of the nipple, but after the bath only five and a half centimetres distant and at a slightly higher level; the general area of dulness was considerably reduced.

CASE 3.—This was a girl fourteen years of age, who had an attack of rheumatism in the preceding winter and suffered from stenosis and insufficiency of the mitral valve. She had been treated at Nauheim for two months by baths alone under medical direction, but without becoming any better; having then been treated with baths and gymnastics under Dr. Schott's system the marked dyspnœa and all præcordial pains disappeared and she considered herself to be perfectly well. Before an exercise of fifteen minutes the apex beat was four and a half centimetres to the left and below the nipple, but after the exercise it was only two and a half centimetres to the left and below.

CASE 4.—This patient, who was the subject of aortic stenosis and slight mitral regurgitation, and was now spending a fifth season at Nauheim, had been much benefited by the treatment. The area of cardiac dulness was normal and the apex beat four centimetres below and just inside the nipple line. After six movements of the exercises the apex was distinctly felt two centimetres nearer the median line.

All the cases now reported had been of the most unpromising type and had been carefully treated by the best physicians before going to Nauheim, and all those which Dr. Bowles had observed there made surprising recoveries. Great stress was laid on the point that such immediate and prompt changes are not ordinarily to be expected after a single sitting or a single bath, neither ought they to be sought after. For the medical attendant might then be tempted into using stronger efforts than prudence would sanction; the improvement should come about gradually and in its own proper time. Another point to be remembered was, that the bath treatment gives rise to a marked degree of weakness; which is often very discouraging to the patient and leads him to believe that he has received no benefit. The disappearance of such signs and even symptoms as œdema and dyspnœa and the changes in the heart afford sufficient indications for the physician to judge how the case is progressing.

Mr. EASTES, while acknowledging that the Schott method gave good results generally, asked if it always did so, particularly in those cases where treatment by the older and more generally adopted methods had failed of success.

Dr. BEZLY THORNE said that he could not be surprised at the scepticism with which the merits of the Schott methods are regarded by those who have not themselves enjoyed opportunities of observing their demonstrable results. The names of Broadbent, Grainger Stewart, and Saundby had been mentioned. Those physicians had each one approached the subject in a spirit of reasonable and scientific unbelief, and in the event had become converts and advocates. He himself had been a sceptic of the most advanced order, for he had been in the first instance unable to accept the evidence of his senses, but he had been compelled to yield to the persuasive eloquence of striking results. He called to mind a case which he had reason to believe had been quoted as an instance of a man having been killed by the Schott treatment. The patient had been treated in England for aneurysm, and after having been unable to perform his official duties for a period of something like two years had left his bed to repair to Nauheim. He (the speaker) had seen him for the first time some three weeks later. On that occasion the patient walked a distance of about a mile, part of which was up a steep incline, and after spending more than an hour in conversation walked home again and expressed himself as feeling better than he had done for years. Shortly afterwards he contracted a severe chill from sitting in the open air in the course of a cool evening which had succeeded to a singularly hot and sultry day. The result was pleuro-pneumonia and death, and a post-mortem examination made by the pathologist attached to the University of Giessen revealed the existence of aneurysm of the heart and calcification of the coronary arteries. Such cases of failure could not be regarded as evidence against the system.

Dr. WETHERED said that about two years ago he paid a visit to Nauheim and was much astonished by the results of the special treatment for chronic cardiac disease which he saw there. He felt deeply grateful to Dr. Schott for the trouble he had taken in affording him opportunities of observing patients under treatment. He (Dr. Wethered) fully corroborated the remarkable statement made by Dr. Bezly Thorne that all forms of chronic heart disease derived benefit from the baths and exercises. He had seen cases at Nauheim which in England would have been regarded as hopeless, and in which digitalis and all ordinary treatment had been tried in vain, yet under the Nauheim treatment the improvement was marvellous, but as soon as the treatment was discontinued these patients began to relapse. Yet some of the worst cases during the most they were at Nauheim seemed to reap sufficient benefit to carry them over the winter months, until they could return to Nauheim and receive a new lease of life. He considered that in a great measure the success at Nauheim depended upon the strict *régime* which the patients were compelled to follow. If patients in England would consent to submit themselves to the same rigid rules of life he saw no reason why the treatment should not be adopted in this country more especially with regard to the exercises, but they were useless unless properly carried out for some time. He thought the cases which were most suitable were those of dilated heart without valvular mischief and neurotic cases although many cases of valvular disease obtained much benefit. Cases of Graves's disease were not so satisfactory.

Dr. CAGNEY said that both Dr. Bowles and Dr. Bezly Thorne, while vouching for very remarkable cures in cases of enlarged heart with the usual consequences—œdema, albuminuria, venous congestion of organs, &c.—had omitted to deal with the question of the original lesion of which cardiac enlargement was a result. They had been told that some patients were cured in one visit or course of treatment. Were such patients the subject of valvular lesion, and, if so, what became of the lesion?

Dr. C. W. CHAPMAN doubted the possibility of accurately defining the variations of cardiac dulness as the drawings illustrative of the Schott treatment would appear to indicate. He pointed out the fallacies in auscultation percussion, and stated that the note varied with the distance between the chest piece and the part struck, irrespective of what was beneath, and that firm pressure of the chest piece sometimes caused a difference of a semitone.

Dr. LESLIE THORNE THORNE, in answer to the question as to the possibility of the Schott treatment being successfully carried out in England, said that he had treated a number of cases of heart disease by this method both at Llangammarch Wells in Wales and also in London, and out of thirty cases so treated twenty-nine had given excellent results, the one successful case being one in which calcareous degeneration of the walls of the vessels played a prominent part in the circulatory trouble. He had made careful examinations as to the effect of the baths and exercises upon the area of cardiac dulness and had obtained results similar to those of Dr. Bowles.

Dr. ALEXANDER MORISON criticised the degree of cardiac shrinkage related by many advocates of the method. The benefits arising from the system he attributed to the exaggeration of the peripheral and pulmonary aids to circulation as well as to direct stimulation of the heart.

Dr. JOHN BROADBENT agreed that one of the important contributing agents to the beneficial results obtained in the treatment of heart disease at Nauheim was the regu

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routine life led there with freedom from worry and excitement of all kinds. While admitting that the treatment by baths and exercises was of great service in suitable cases, he wished to protest against the idea that it was advisable or beneficial in all varieties of morbus cordis, or that equally good results could not be obtained by other methods in many cases. He instanced the rapid recoveries that take place every day in hospital as a result of rest and suitable treatment by mercurial purgatives and digitalis in cases of valvular disease where compensation has broken down in consequence of overwork or imprudence on the part of the patient, or in consequence of an intercurrent attack of bronchitis. He had not found the Schott treatment serviceable in advanced cases of valvular disease with complete failure of compensation where drugs and rest had not alleviated the symptoms, neither did he consider it safe or advisable in cases of aortic regurgitation of any severity, as he had twice known of syncopal attacks taking place while the patient was in the bath. He thought that its employment was indicated in cases of mitral disease, more especially mitral stenosis, when compensation had not broken down, but was maintained with difficulty; in such cases digitalis, though it might increase for a time the contractile power of the right ventricle, was not beneficial, as the blood could not be forced at more than a certain pace through the narrowed mitral orifice, and this useless expenditure of force would wear out the right ventricle prematurely. One such case he had known to derive great benefit from a visit to Nauheim. He thought that the Schott treatment was often of great service in cases of tachycardia, and loss of tone of the heart after influenza or some depressing illness, but he deprecated its employment in cases of temporary cardiac dilatation in young adults the result of over-strain from football or rowing, as they would get well without it on abstaining from violent exertion; in fact, in such cases gentle walking exercise had the effect of bringing in the apex of the heart in the same way as the Schott movements.

Dr. H. NEWTON HEINEMAN (of New York) said that he had seen numerous patients who had returned to Nauheim every summer for periods of from three to ten years, and of these patients not a few had been on the point of giving up their ordinary occupations, but were enabled to continue them for many years simply as the result of this treatment. While in Berlin this winter he was permitted, by the courtesy of Geheimrath von Leyden, to apply the exercises daily for a period of nearly three months to a number of cases, and the results exceeded his expectations. The treatment employed by the late August Schott was published and elaborated some time before that of Oertel.

NORTH-WEST LONDON CLINICAL SOCIETY.

Exhibition of Cases and Specimens.

A MEETING of this society was held on March 18th, Dr. CAGNEY being in the chair.

Mr. C. H. CLAYTON showed an athletic and muscular young man in whom there was marked Wasting of the Scapular and Deltoid Muscles.

Dr. JOHN SHAW showed a Slough which represented the mucous lining of a uterus affected with cancer which was too extensive to admit of operation. The slough had separated painlessly after the application of caustic zinc chloride.

Mr. DURHAM showed a Piece of Articular Cartilage with a thin layer of bone beneath it. The fragment had been removed from the knee of a young man as a loose body six weeks after a fall. It had probably been chipped off the patella.—Mr. DURHAM also showed a boy in whom the Triceps had been completely and the Ulna partially Divided by a Saw. The power of the triceps had been perfectly recovered and there was only slight impairment of the function of the ulnar nerve.

Mr. JACKSON CLARKE showed a case of Paget's Disease of the Nipple. The patient was a woman aged forty-three years. The disease was first noticed as a "scurfy patch" at the site of the nipple seven years previously. The affected area was now as large as the palm of the hand, had a sharp sinuous border, and a typical bright bluish-red colour; there were shallow excoriations here and there. No induration could be detected in the breast or axillary glands. Mr. Clarke proposed to remove the breast.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Specimens and Photographs.—Nasal Obstruction.—The Management of the Diet in Enteric Fever.

A MEETING of this society was held on March 6th, Mr. MAYO ROBSON being in the chair.

Mr. CROFT showed a Solid Tumour of the Ovary, probably Sarcoma.

Dr. TREVELYAN showed (*a*) a Stomach with Coffee-ground Contents and no obvious Lesion of the Mucous Membrane; (*b*) a Vermiform Appendix with a concretion *in situ*; and (*c*) Extensive Carcinoma of the Larynx.

Dr. JOHNSTONE CAMPBELL showed Photographs taken by Roentgen's Method.

Dr. WARDROP GRIFFITH showed (*a*) a Specimen showing considerable Cardiac Hypertrophy without Arterial Change in a young lad who died from chronic parenchymatous nephritis; and (*b*) a specimen showing Great Thickening of the Bladder with real Muscular Hypertrophy and Marked Hydro-nephrosis without any other signs of mechanical obstruction to the exit of urine.

Dr. ADOLPH BRONNER read a paper on the Causes and Sequelæ of Nasal Obstruction.

Dr. BARRS read a paper on the Management of the Diet in Enteric Fever, in which he strongly advocated a relaxation of the strict dietetic rules usually followed in the direction of an earlier administration of solid food, especially meat, not only in convalescence, but in the acute stages of the disorder, the patient's appetite and general condition being taken as the guide to practice and not the temperature chart, as at present. He did not advocate the use of solid food at all stages and in all conditions of enteric fever, but was strongly of opinion that great harm was frequently done, and convalescence unduly lengthened, by the prolonged periods through which patients were confined to an unnatural (i.e., entirely fluid) diet according to the present rules of practice. Of thirty-one cases of enteric fever treated on this principle during the last three years in the Leeds Infirmary three only had died, and in each of these three cases it had been found absolutely impossible for the patient to take solid food. He deprecated the great tendency to treat the intestinal lesions at the expense of the individual.—Dr. JOHNSTONE CAMPBELL maintained that Dr. Barrs's treatment was irrational, though possibly not bad in actual practice. Considering the ulceration, food should be given which is largely absorbed before coming to the ulcerated part, and such a diet is milk. Milk also causes diuresis, an important point in view of the destructive metabolism that goes on in enteric fever. Fruit contains practically no nutriment and much waste, and was, therefore, the worst thing that could be given. During the convalescent stage he advocated meat rather than rice puddings as having less waste material for evacuation by the bowels.—Dr. EDDISON thought that if the tongue was clean and the abdomen flaccid the exact kind of diet was not very important. Defending milk diet, he denied the assumption that milk diet was starvation. The digestion is weak in enteric fever, and if upset by extra diet may lead to tympanites, which he felt sure tended to favour perforation.—Mr. PEARSON had treated 1000 or 1100 cases of enteric fever during the last five years, using the ordinary routine treatment, and while agreeing with Dr. Barrs that a too rigid diet during early convalescence was bad, and that a more generous diet often was followed by a normal temperature record, he differed from him in his views as applicable during the acute stages, and especially he objected to fruit as an article of diet.—Dr. CHURTON, basing his remarks on 74 analysed cases, said there had been 6 deaths—3 from pneumonia, 2 from hæmorrhage, and 1 from perforation. Milk he preferred as a diet, for, even if undigested, it was a less favourable medium for the growth of organisms than other forms of liquid nourishment. A mixed diet tended to cause diarrhœa.—Dr. BARRS, in reply, said that he quite anticipated that his suggestions would meet with strenuous opposition, seeing that there was little, if any, scientific basis for the rules laid down for the dietetic treatment of enteric fever beyond the supposed danger of solid food producing perforation of the gut. It had been suggested that solid food, and fruit especially by its bulky residue, would cause irritation of the intestinal lesions, but in the cases treated upon the plan suggested there had been no increase of diarrhœa or other evidence of irritation. Dr.

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Barrs claimed that his cases clearly proved that the strict exclusion of solid food from the dietary of enteric fever was not necessary to its successful treatment, and therefore could not be free from harm in all instances.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Exhibition of Specimens.

A MEETING of this society was held on March 11th, Dr. H. R. HUTTON, President, being in the chair.

Dr. MILLIGAN showed microscopic preparations of two cases of Sarcoma of the Middle-ear. In the first case the patient, a female aged sixty-three, had suffered for many years from suppurative middle-ear disease. Three years ago the right external meatus became blocked by a fleshy growth. Attacks of spontaneous hæmorrhage were frequent and severe. Upon examination a fleshy growth of a very vascular character was found occluding the lumen of the meatus. Marked facial paralysis and atrophy of the facial muscles upon the same side existed. Deep-seated and extensive caries was easily demonstrated to be present. No enlarged glands could be found. The patient stated that recently she had lost weight. A portion of the growth was removed for microscopic examination and proved to be a very vascular angio-sarcoma. In the second case the patient, a girl aged eighteen, had suffered from left-sided suppurative middle-ear disease for seventeen years dating from an attack of scarlet fever. Latterly she had lost weight, and had had several attacks of spontaneous hæmorrhage from the ear. Upon examination the meatus was found to be quite blocked by a fleshy and vascular growth surrounded by very fœtid pus. The surrounding tissues were infiltrated. Examination of a portion of the growth showed it to be myxo-sarcomatous in structure. — Dr. MILLIGAN also showed the Brain from the case of a patient who had died from Basilar Suppurative Meningitis secondary to an Acute Tempero-Sphenoidal Abscess. The patient, a man aged forty-eight, had suffered for three months from suppurative middle ear disease upon the left side. The cause was unknown and the definite statement was made that no previous ear mischief had at any time existed. When first seen the patient complained of great frontal pain and inability to sleep although he felt drowsy. The pulse was 62 and the temperature 98 6° F. The skin was dry, the tongue furred, and the bowels obstinately constipated. The optic disc upon the same (left) side was congested and its margins fluffy. Left-sided ptosis and facial paralysis existed. The left membrana tympani was perforated and inflamed. Both motor and sensory aphasia existed to a marked degree. Under chloroform the posterior portion of the tempero-sphenoidal convolutions were explored, a large abscess found, and a drainage-tube was inserted. For several weeks the patient made good progress; his mental condition, which had previously been very dull, cleared up, and he was able to move about the wards. Unfortunately, a hernia cerebri formed. Suppurative meningitis ensued and the patient died nine weeks after the operation. No secondary bone affection was found in the parietes of the middle ear or in the mastoid cells, so that the pathogenic organisms must have been directly conveyed from the middle ear to the brain by means of the venous or lymphatic radicles in the immediate neighbourhood.

Dr. KELYNACK showed preparations of a case of so-called Emphysema of the Liver. The macroscopical and microscopical characters were described and references made to several examples recorded by other pathologists. The opinion was expressed that it was almost, if not entirely, due to putrefactive changes.—Dr. KELYNACK also showed a series of preparations from a case of Proliferative Adenocystoma of the Kidney and Liver. The subject of the growths was a woman aged thirty-three. Progressive enlargement of the left kidney and liver, with marked ascites and general indications of malignant disease, were the leading clinical features of the case. The pathology of the tumour was discussed and the points in which it differed from many of the renal adenomata already recorded dwelt upon. The case is to be recorded in detail.

Mr. PETER PIKE, M.R.C.V.S., showed the Skull of a Horse which had been affected with Alveolar Sarcoma. The swelling of the upper jaw had come on suddenly and increased rapidly in size for sixteen days, when an operation was performed and the tumour removed. This was a hyaline growth, which, on microscopical examination, was found to consist of minute round cells in the centre and large spherical cells at the periphery. The growth recurred and the animal was destroyed four months after the onset of the disease; no secondary deposits in other organs were found. In these equine cases of alveolar sarcomata the alveolus only is affected, the teeth remaining free.—Mr. PIKE also showed a specimen of Bovine Alveolar Sarcoma taken from a three-year-old bullock. A swelling arose in the submaxillary fossa, the second and third molar teeth being affected. The tumour was removed, but recurred, the teeth being affected; microscopically it showed the characters of an osteo-dentoma.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

Exhibition of Cases.

A MEETING of this society was held on March 7th, Dr. BRONNER, President, being in the chair.

Dr. MAJOR showed the following cases: 1. Sporadic Cretinism greatly benefited by Thyroid Feeding. The patient was a girl aged six years who when first seen presented a typical picture of a cretin. The improvement was both mental and physical, the child being able to walk and to speak and was attending school. 2. Splenic Leukæmia with Microscopic Demonstration of Blood. The patient was a woman aged thirty-eight years who had spleen extended down to the iliac fossa. 3. A man aged twenty-three years who for many years had Disease of the Left Ear. For two days before admission he had severe headache and giddiness. There were also Jacksonian convulsions affecting the right arm, face, and leg. He appeared to be dying. Mr. Appleyard trephined over the left temporo-sphenoidal region and explored the left hemisphere of the brain with a needle with negative result. The patient made an excellent recovery and was now able to work.—Dr. CRAWFORD, Dr. H. BRONNER and the PRESIDENT discussed the cases and Dr. MAJOR replied.

Dr. CAMPBELL showed the following cases: (1) Peripheral Neuritis in a man, alcoholic in origin; (2) Congenital Pulmonary Stenosis in a child; (3) Interstitial Pneumonia in a Child; (4) Pericarditis; and (5) Progressive Muscular Atrophy.—The cases were discussed by Dr. MAJOR, Dr. RABAGLIATI, and Dr. H. BRONNER.

The PRESIDENT showed (1) a case of Extensive Lupus of the Face treated with tuberculin; (2) a girl aged twelve years who had recovered her sight under treatment with mercurial inunction and iodide of potassium internally; and (3) cases of Congenital Specific Choroido-retinitis. Dr. RABAGLIATI and Dr. GREENBURY spoke and the PRESIDENT replied.

Dr. S. LODGE demonstrated the use of Kirstein's Autoscope and also showed a man aged fifty-seven years on whom he had operated in 1891, removing a Cataract from the right eye by Macnamara's method. The patient had done well, and at the present time could read $\frac{2}{3}$ with + 8·0 D. sph., and with + 12·0 D. could read J. No. 1 33 cm.

Mr. WILMOT showed a patient with a Congenital Malformation of the Forearm, probably an intra-uterine amputation below the elbow-joint.—Dr. CRAWFORD and Dr. MANNELL spoke on the case.

Dr. H. BRONNER showed a case of Ophthalmoplegia Interna.

Dr. CRAWFORD showed a man with an Aneurysmal Varix of the Right Thumb.

QUEEN'S HOSPITAL, BIRMINGHAM.—The annual meeting of the Queen's Hospital, Birmingham, was held at the Council House on March 19th. The Mayor presided, and in the course of his address called special attention to the fact that the subscriptions last year were £1100 less than they were twenty years ago. He feared that in the mind of the public the Queen's Hospital was to some extent overshadowed by the General Hospital. Sir James Sawyer said that although the general subscriptions had fallen off, yet the Hospital Saturday contribution of £2025 last year showed an increase. During last year 2000 patients were admitted and 28,000 out-patients received advice and treatment.

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Reviews and Notices of Books.

Lectures on Pharmacology (Vol. I.). By Dr. C. BINZ. Translated from the Second German Edition by ARTHUR C. LATHAM, M.A., M.B. Oxon., M.A. Cantab. London: The New Sydenham Society. 1895.

THIS translation of the first volume on pharmacology will be welcomed by English readers. The book is practically a reproduction of a course of lectures by Dr. Binz, and aims at presenting the knowledge of pharmacology in a practical and interesting form. The subject is naturally a little vague in its boundaries, dipping, as it does, into so many sciences, so that it is without doubt a great boon to have its principles put before us in such a way that they can be easily assimilated. The book is well illustrated, and it cannot fail to prove useful both to students and to those engaged in actual practice.

The Chemist's Compendium. Compiled by C. J. S. THOMPSON. London and New York: Whittaker and Co. 1896. Price 2*s.* 6*d.*

THIS little book is addressed to pharmacists, chemists, and students, and contains a veritable mine of useful information, much of which is of great importance to the medical profession. It is impossible to enumerate here all the subjects upon which it touches, but some idea of the ground it covers may be imagined when we say that it deals with a synopsis of the formulæ of the British Pharmacopœia, metrical weights and measures, stains and media for microscopical work, milk analysis, sale of poisons with schedule, and organic materia medica, giving British Pharmacopœial and botanical names, natural orders, habitats, and active principles. These are only a few of the subjects dealt with; and, got up as it is in a compact form, it will be a most valuable reference-book for those whose work brings them in contact with pharmaceutical and chemical knowledge.

Our Growing Children, with Special Reference to the Physical Education of the Weakly. By GERARD SMITH, M.R.C.S. London: John Bale and Sons. 1896. Price 2*s.* 6*d.*

THE subject of this little book is one of almost universal interest, for by attention to a few simple rules those who have the care of children can do much to promote the bodily well-being and happiness of the rising generation, just as, on the other hand, from thoughtlessness or want of knowledge the most affectionate parents may inadvertently jeopardise the future career of their offspring. Mr. Smith deals principally with the causes, prevention, and correction of stooping attitudes, curvature of the spine, and flat foot, a course of systematic gymnastics without violent exertion being recommended and fully described. He also touches incidentally on the care of the eyesight, the form of school seats and desks, and the position assumed while writing. The book contains much information, useful both for school managers and for parents of delicate children. The author is a cyclist, and has devoted some pages to the subjects of posture in cycling and the best form of seat.

JOURNALS AND REVIEWS.

The Indian Medico-Chirurgical Review. Edited by N. H. CHOKSY. Bombay: N. K. Rao and Co. London: Baillière, Tindall, and Cox. January, 1896.—We may briefly allude to the January number of this journal which seems to be a creditably conducted review containing many contributions from the native practitioners of India and others. There are original articles on the treatment of placenta prævia in hospital and private practice; on turbinotomy and its effects on affections of the ear; on rheumatism and malaria; and various reports and articles on the Eleventh Indian National Congress; the sanitary administration, the state of vaccination, and the civil dispensaries of Burma during 1894–95; together with an Indian Annus Medicus, reviews and notices of books, and a *résumé* of the progress of medical science. The figures in the papers devoted to Burma and vital statistics, the Indian Annus Medicus, and the extracts from current medical literature, arranged in different sections and descriptive of the progress of medical science, give much useful and reliable information.

Vectis, a Monthly Journal of Literary, Local, and General Interest. Edited and conducted by G. H. R. D. Shanklin, Isle of Wight: Silsbury Bros.—Under the insular title of *Vectis* has been issued a monthly journal of "literary, local, and general interest" for the Isle of Wight. If we mistake not, the idea is not quite original, and we should be sorry to predict an unhappy termination to the present plucky venture; but we cannot help thinking that there is not enough "go" in the Island for its people alone to support such a journal, even although it would be decidedly to their own advantage to do so liberally. Probably its only chance of financial success would be in its ability to compete successfully with the best London sixpenny magazines, and we shall look forward to a nearer attainment of this in its quarterly form, the first number of which will be ready in May. One feature of the journal is good—namely, the "Blank Cartridge" of the editor; and there is quite local colouring enough in this to suffice, with such an occasional article as might be written on, say, the National Hospital at Ventnor, to ensure *Vectis* living up to its name. Under this heading the editor writes pluckily and pithily, and his fearless remarks upon medical, sanitary, and general matters might be turned to much local benefit. He also has a kindly and practical word to say for the humane treatment of horses in hilly districts like the Isle of Wight. But, on the other hand, he hits hard at snobbery, cant, and unkindness. In short, his blank cartridge is charged with very penetrative powder.

State Hospitals Bulletin. Published by authority of the State Commission in Lunacy. Utica, N.Y.: State Hospital Print. 1896.—This new journal is designated as a quarterly report of clinical and pathological work in the New York State Hospitals (for the insane) and their pathological institute. In their opening announcement the editors expressly state that the *Bulletin* is not intended to compete with any journalistic work in present existence. They hope that it will act as coadjutor to journal workers in presenting facts that may be used by them, and believe that it will be a means of preserving and disseminating useful and interesting knowledge that would otherwise slumber undisturbed in case-books and clinical records. The aim of the work is excellent, and the example thus set might be profitably copied in this country; for instance, by the authorities of the London County Council Asylums. The first number contains a series of original and important articles which cover a large extent of ground, and should the present standard of excellence be kept up, the new departure ought to prove a valuable addition to the records of psychological literature.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN.—The seventy-ninth annual meeting of the Royal Hospital for Children and Women, Waterloo-road, was held at the hospital on March 20th, under the presidency of the Lord Mayor, who was accompanied by the sheriffs. The report showed that the in-patients had fallen from 691 in 1894 to 486 in 1895, but the out-patients in 1895 showed an increase of 220. The financial necessities of the hospital had compelled the sale of £500 Consols to defray ordinary expenditure, and new annual subscriptions were urgently required to meet liabilities amounting to nearly £600.

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Analytical Records FROM THE LANCET LABORATORY.

APENTA.

(THE APOLLINARIS CO., LIMITED, 4, STRATFORD-PLACE, OXFORD-STREET, W.)

APENTA is a well-known and much-esteemed purgative water derived from the Uj Hunyadi Springs, situated on the slopes outside Buda-pest. Its composition in regard to its saline and active constituents, as far as we have examined samples obtained at different times and different places, is constant—a point of some importance, since the practitioner is thus enabled to prescribe definite quantities for definite results, and patients to rely upon a uniformity of medicinal action. The specific gravity of four samples taken at random at different times ranged between 1·039 and 1·041, which represents but a slight difference in the amount of dissolved saline constituents. The mean composition in grammes per litre was found to be as follows: magnesium sulphate, 23·40; sodium sulphate, 16·32; sodium chloride, 1·81; calcium carbonate, 0·90; and calcium sulphate, a trace. There was a good indication of lithium. It will be seen that the magnesium sulphate is decidedly in excess of the sodium sulphate. The taste of the water is bitter, but is less disagreeable than it might be were the magnesium salt not distinctly in excess of the sodium salt. The magnesium salt is less nauseating, and as a purgative is of a generally milder character and less rapid in its action than sulphate of soda. Its medicinal effect is favourably modified doubtless by the fact of its being a natural water. The observation has frequently been made that artificially-made waters exhibiting approximately the same saline composition are not so beneficial as those derived from natural sources. This would appear to be true of purgative as well as chalybeate and alkaline carbonated waters.

(1) OLD GRANS TODDY (SCOTCH WHISKY); AND (2) SLOE GIN.

(CHARLES WRIGHT AND SON, WIRKSWORTH, AND 33, GREAT TOWER-STREET, E.C.)

On analysis the whisky gave the following results: alcohol, by weight 39·30 per cent., by volume 46·59 per cent., equal to proof spirit 81·64 per cent.; extractives, 0·12 per cent., yielding 0·01 per cent. mineral matter; and acidity reckoned as acetic acid, 0·021 per cent. These are satisfactory results to which should be added that it possesses a mild and mellow taste characteristic of a matured spirit and therefore free from crude and injurious products of distillation. It is evidently a careful blend of a pure and palatable character. Sloe gin is a comparatively new introduction not entirely to be deprecated since it is much less powerful than ordinary liqueurs, for which it serves as a pleasant substitute. It is of rich port-wine colour and possesses a peculiar, slightly astringent, but agreeable flavour, derived from the fruit of the blackthorn. Its alcoholic strength, as will be seen below, is much less than that of ordinary gin. On analysis the following results were obtained: Alcohol, by weight 22·15 per cent., by volume 27·04 per cent., equal to proof spirit 47·39 per cent.; extractives and sugar, 18·13 per cent.; ash, giving distinct evidence of soluble phosphates derived probably from the fruit, 0·35 per cent. We could trace no injurious colouring matters.

EXTRACT OF MALT.

(THE SCOTTISH PRESERVES COMPANY, LIMITED, GREENOCK.)

The care with which this extract is prepared is evident from its fine malty flavour and its powerful digestive action upon starch. It is contained in tins provided with a lever lid of wide dimensions, so that the extract may be easily taken out with a spoon. This is a distinct advantage convenience, especially in the case of sticky substanc Many have experienced how tedious and clumsy an operat it is to obtain a definite quantity of viscous malt extract of a bottle having a comparatively small opening. T extract before us is of fine quality, possessing both direct and indirectly nutritive properties of recognised value.

COD-LIVER OIL (COLD DRAWN).

(E. B. MACDOUGAL, ST. JOHN'S, NEWFOUNDLAND.)

The feature of this preparation consists in its having bee expressed from the liver in the cold. It is a clear and brilliant oil of a pale straw colour and its specific gravity was found to be 0·929. To test-paper it is neither acid nor alkaline. Whatever may be the particular method of its preparation it is certainly as free from disagreeable flavour as cod-liver oil pure and simple can well be. It is well borne, without the unpleasant eructations which follow the ingestion of oils of a less degree of refinement.

CREAM CARAMELS.

(CLARKE, NICKOLLS, AND COOMBS, HACKNEY WICK WORKS, N.E.)

These confections are stated to be prepared with cream, and our analysis gives no evidence to the contrary. They contain an excellent proportion of butter fat, and in the mineral residue obtained on incineration phosphates derived from milk were found. These caramels are evidently pure confections and have a pleasant toffee-like flavour.

FOOD DELICACIES: (1) PURÉE OF CHICKEN TRUFFLED; AND (2) PURÉE OF TOMATO AND SARDINE.

(J. MARQUIS, LATE RUFFIN AND CO., LIMITED, 74, TOTTENHAM COURT-ROAD.)

We need say nothing of the well-known appetising character of food preparations of the above order. It remains only to record that the above preparations, which are of a high-class kind, were found to be entirely free from objectionable preservatives, while all risk of metallic contamination is obviated by the preparation being contained in glass jars, closed and sealed by atmospheric pressure. This is a method of packing food which we strongly commend.

IRISH WHISKY.

(KINAHAN AND CO., GUILDFORD-STREET, YORK-ROAD, LAMBETH, S.E.)

This is a spirit of exceptional softness and mellowness of character, due doubtless to thorough ripening by storage. It is, therefore, peculiarly well adapted for medicinal purposes. It possesses the delicate "peaty" aroma and flavour which distinguish Irish whisky, and is free from those bodies found in the products of distillation which are said to cause unpleasant physiological effects. On analysis the following results were obtained: alcohol, by weight 40·80 per cent. by volume 48·21 per cent., equal to proof spirit 84·49 per cent.; extractives, 0·09 per cent.; mineral matter, *nil*; acidity reckoned as acetic acid, 0·006. It will be seen that it contains practically no extractives and that its acidity is almost *nil*.

SANITAS MOTH PAPER.

(THE SANITAS CO., LTD., BETHNAL-GREEN, E.)

There are not a few who would welcome an effective means of getting rid of the moth pest. The Sanitas Moth Paper is designed with this object in view. It consists of a sheet of paper glistening with crystals of probably a mixture of camphor and naphthalene. The former serves to mask to some extent the disagreeable smell of the latter. It is no doubt an effective device.

NUTROA FOOD.

(NUTROA, LIMITED, 54, CHISWELL-STREET, E.C.)

Nutroa food appears to consist of malted and cooked wheaten flour enriched with a preparation called "nutroa,"

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which is a substance rich in proteids, fat, and mineral matter derived in a special way, as its name would imply, from some kind of nut. "Nutroa" is also used for enriching flour for the preparation of bread. Our own opinion is that flour of good quality needs no such addition. But since milling has become a fine art we fear that wheaten flour is often behind the standard of quality in regard especially to proteids and phosphatic constituents. The addition of "nutroa" in such a case would compensate, and in sufficient proportion more than compensate, this poverty in these most important food elements. For the purposes of a special food as that before us such an addition is also valuable, assuming, of course, that the substances introduced are available for nutrition, and it is only the evidence of experience that can decide this and not a mere chemical analysis. Nutroa food, we find, exhibits the following composition: proteids, 16·00 per cent.; fat, 13·40 per cent.; mineral matter, 0·94 per cent.; carbohydrates, 60·32 per cent.; and moisture, 9·34 per cent. The fat is in an emulsified condition, and the effect of malting the food appears to protect the fat from becoming rancid, besides partially converting the carbohydrates, which are thus made more soluble. The food, therefore, presents not a single deficiency in regard to the essential factors of a complete diet, proteid, carbohydrate, fat, and mineral matters being present in generous and well-suited proportion.

ANÆSTHETIC TABLOIDS.

(BURROUGHS, WELLCOME, & CO., SNOW-HILL BUILDINGS, E.C.)

The production of local anæsthesia by the infiltration method has recently been employed by Dr. Schleich of Berlin with very satisfactory results.[1] His procedure is to dissolve a small quantity of cocaine hydrochlorate in a weak solution of common salt, by which it is found that the discomfort of an ordinary hypodermic injection was considerably reduced while the anæsthesia was less transitory. The addition of morphia hydrochlorate is an advantage in sufficiently maintaining the insensibility to pain to allow of prolonged surgical operation. The infiltration method consists briefly in injecting within, not under, the skin so that a wheal is produced somewhat like a mosquito bite and about the size of a halfpenny. The first area having been anæsthetised, a number of new circles are added overlapping each other so as to include an area within which the operation is to be conducted. The anæsthetic effect lasts, it is stated, some twenty minutes, fresh infiltrations prolonging the period for hours. The advantage of having the anæsthetic mixture ready to hand in tabloid form is obvious. In the first place, decomposition cannot set in in the tabloid form, and accuracy of measurement of the quantities required is ensured. With this view tabloids have been prepared representing the following useful formulæ:—No. 1, "strong"—cocaine hydrochlorate, 1-5th grain; morphia hydrochlorate, 1-40th grain; and sodium chloride, 1-5th grain. One tabloid dissolved in 100 minims of water yields the "strong" solution. No. 2, "normal"—cocaine hydrochlorate, 1-10th grain; morphia hydrochlorate, 1-40th grain; and sodium chloride, 1-5th grain. One tabloid dissolved in 100 minims of water yields the "normal" solution. No. 3, "weak"—cocaine hydrochlorate, 1-100 grain; morphia hydrochlorate, 1-40th grain; and sodium chloride, 1-5th grain. One tabloid dissolved in 100 minims of water yields the "weak" solution. In all three formulæ the proportions of morphia hydrochlorate and sodium chloride are the same, the proportion of cocaine hydrochlorate only varying. The normal strength is that usually employed, and it is adapted to nearly every variety of minor surgical operations, the weak being employed for infiltration into deep tissues after superficial anæsthesia has been produced by No. 2. No. 1 is used for very sensitive areas only. Each strength is supplied in non-actinic glass tubes containing twelve tabloids in each.

[1] THE LANCET, Feb. 29th, p. 565.

IODOFORMIN.

(SPIES BROS. CO., 112, FENCHURCH-STREET, E.C.)

Iodoformin is described as a chemical combination of iodoform, and like it its antiseptic action probably depends upon the readiness with which it parts with its iodine. Though possessing an unmistakable smell of iodoform it is much less powerful and persistent. It is a fine, very light yellow powder which is not very soluble in cold, but freely in hot, alcohol. By the action of secretions in wounds it is said to liberate iodoform, but that this separation stops as the secretion ceases, so that the iodoform is not in objectionable excess. It is said also that, unlike iodoform, it dries up the secretions without forming crusts. Iodoformin mixes with glycerine, forming an emulsion, and it can be used favourably in the form of ointment. Its chief advantage appears to be that, though it is not exactly iodoform, and therefore free in some respects from some of its objections, yet it readily yields that body when in contact with secretions of wounds. The same advantages would appearto be gained by the use of iodoformin gauze, a specimen of which we have also recently received.

ANTIKAMNIA.

(J. M. RICHARDS, 46, HOLBORN-VIADUCT, E.C.)

Antikamnia is well spoken of as an analgesic and antipyretic in the treatment of neuralgia, rheumatism, &c. As may be imagined, it is one more addition to the already long list of coal-tar derivatives of the benzene series, into which, however, certain amine groups have been introduced. It is a white powder of a bitter taste and alkaline reaction. It is not disagreeable to take and may be had either in powder or tablet form, the latter being made in five-grain size. It is described as not a preventive of, but rather as affording relief to, existent pain. By the presence in it of the amine group it appears to exert a stimulating rather than a depressing action on the nerve centres and the system generally. If this be so it possesses advantages over other crystalline coal-tar products.

TAKA DIASTASE.

(PARKE, DAVIS, AND CO., 451, OXFORD-STREET, AND 21, NORTH AUDLEY-STREET, GROSVENOR-SQUARE, W.)

Taka Diastase is, as we have found by experiment, an exceedingly active form of diastase obtained by cultivation of a fungus of the species Eurotium Oryzæ, a mycelial of the Aspergillus family. The elaboration of the process, by which also a powerful ferment (Taka Moto) is simultaneously obtained, is due to a Japanese chemist, Mr. Jokichi Takamine, whose investigations were fully described in THE LANCET of May 25th, 1895. The purified diastasic product, of which we have recently received samples, consists of a somewhat brittle powder of a light-brown colour; it is practically free from taste, but it imparts a peculiar sensation when placed on the tongue indicative of high amylolytic properties. It will readily convert over a hundred times its weight of starch. In reducing carbohydrates to a soluble and probably more assimilable condition in food it should prove of great service.

THE SOUTHAMPTON SEWAGE.—The county council of Southampton have, on the recommendation of the medical officer and the health committee, appointed a committee to consider the substitution of a single for the present duplicate outfalls on the western shore. Mr. Harris reported a great nuisance from the sewage at Shirley falling on the mud and on the seaweed—the accumulation of the latter itself a point to be remedied. He pointed out that many advantages would accrue could a single outfall for the whole of the sewers be obtained.

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THE LANCET.

LONDON: SATURDAY, MARCH 28, 1896.

NEITHER the profession nor its journalists can feel very proud of the appearance of the profession in the recent case of Kingsbury *v.* Hart, or satisfied with the position in which it leaves the question of medical advertising—a professional offence which has many forms, some of them so subtle as to be more objectionable than the coarser ones, which generally come before the medical bodies, and are still more frequently referred to the medical press. The recent case is of prime importance to the medical press. For one case that is referred to the examining bodies a hundred are referred to the medical journals. The ethical function of the medical press is, indeed, one of the most important it has to exercise, as was suggested in the recent trial, and any verdict which tended seriously to hamper or to disparage it would be a misfortune for the whole medical profession. It is not always a pleasant function. For our own part we have often to blame and it is always painful to have to do so. And sometimes we do so hoping almost against hope that any good can arise. But on the whole it is our experience that much good is done by any reasonable and proportionate criticism. Many errors of behaviour are unintentional, and when attention is directed to them are readily abandoned. Where they are brought to notice early and discussed in a spirit of moderation the result is often satisfactory. We may then well feel some concern at any seeming discouragement to the free expression of ethical opinion by the medical press arising out of the case lately tried by an eminent judge and a Manchester jury, the *Times* report of which is to be found in THE LANCET of March 7th. In this case a medical contemporary has been ordered to pay damages of £150 for severe words of censure on a prominent member of the profession in private practice at Blackpool for allowing his name to be on a brass plate on the gate of a hydropathic establishment—otherwise called a hotel—and for having his name advertised as the physician of the establishment in its prospectus, in press advertisements, and the like. No good object would be served by our discussing in detail the merits of this case. We are, however, greatly concerned with its bearing on the general question of medical ethics and the forces of the profession for their vindication. Here was an ethical question at issue in an Assize Court in which a leading local practitioner was a plaintiff and the editor of the journal of the British Medical Association the defendant. The editor was supported by leading members of the association, by the treasurer of the Royal College of Physicians of London, and by others. No immediate neighbour of the plaintiff was called, but Manchester physicians, including the secretary of the Manchester Medico-Ethical Society, testified that they did not see that the plaintiff had broken any well understood rule of medical practice or of the Manchester Medico-Ethical Society.

We think it a misfortune, not to say a scandal, that when such a case of medical conduct has to be tried at an Assize there should be so direct a conflict of medical opinion as this case exhibited. Moreover, it is most regrettable that questions which ought to be settled inside the profession should be taken into the law courts. There are domestic tribunals in the profession for the settlement of such questions. The great medical and surgical corporations have disciplinary powers and so have the older Universities. The Dublin University, of which Dr. KINGSBURY is a graduate, has, unlike some universities, ample powers, and applies them, when properly moved, to the consideration of particular cases. Somebody is to blame when such cases appear in the law courts and practitioners who are officials of certain public bodies yet speaking with only personal authority give evidence on opposite sides. This brings us to the real and very urgent lesson of the case with which nobody can be satisfied. Dr. KINGSBURY cannot, for—although he readily got a verdict in respect of the severe condemnation which was passed upon him for doing what had been done by his predecessors and had been done by him for thirteen years "with never a syllable of condemnation" from his immediate neighbours, who, indeed, had given him many indications of their respect—he must wish to know what the judgment of a professional tribunal would be on a question now so publicly raised. Much less can the profession be satisfied with a verdict which leaves the offence of personal advertisement altogether undefined.

It is amazing in how many forms this evil appears. Last year our attention was directed to the fact that in Southport the names of several of the local practitioners were advertised in connexion with different sanatoria. We have before us a testimonial on behalf of a certain kind of milk by a registered practitioner, who modestly takes the opportunity of saying that "his success in the treatment of children depends very much on his prescribing this article." In the "personal" columns of our leading daily contemporaries very unexpected names occur with intimations that the distinguished practitioners are out of town and will return on a given date. It is the more serious when we learn that such paragraphs are generally paid for—in fact, that they ar advertisements. But who is to blame for all this undefined and uncorrected evil? We have no hesitation in saying that for this want of definition the medical licensing bodies and the General Medical Council are to blame. This Manchester case could not have happened more opportunely to emphasise their responsibility. It so happens that the Executive Committee of the General Medical Council has the whole subject under its consideration. It will do a great public service if it will move the Council to stimulate the medical authorities to lay down definite rules which can be understanded of the profession in all its ranks and which will be a guide to the medical press in the discharge of its important and very difficult ethical functions.

No department of clinical observation shows more strikingly the untiring endeavour of the physician to advance the precision of his art than does that of examination of the blood. The appearance of new methods fo:

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doing so are constantly recurring. No process of observation is too laborious for the workers in this field. Since MALASSEZ and GOWERS first introduced the counting of corpuscles and the estimation of hæmoglobin hardly a year goes by without some fresh attempt at improvement of the original methods or at supplementing them by others. Hæmatocytometers as now obtainable are instruments of precision; comparable instruments will from the same sample of blood yield countings differing by less than 0·5 per cent. In the same film used for enumerating the coloured corpuscles the colourless may also not only be enumerated but accurately subdivided into sub-groups, arranged according to their morphological characters, and each of these again be accurately counted. To EHRLICH of Berlin we owe the earliest systematic attempt to appreciate abnormalities in the relative numbers of the different species of the colourless blood cells; he first drew from them distinctions now recognised by the clinician to be of value. Upon his system of testing the cells by the affinities of their granules for certain stains rest the terms basophile cells, oxyphile cells, &c., now common in clinical reports on cases of leukæmia and anæmia.

In the important matter of the specific gravity of the blood we in this country have been in advance of continental clinicians. This has been, no doubt, because we have had the advantage of the ingenious method devised by ROY. When blood-letting was a matter of frequency, and routine quantities sufficient for easy estimation of blood-density must have been readily obtainable, but few of the opportunities seem to have been used. By ROY'S method the specific gravity of a fraction of a drop from the finger can be rapidly determined; by subjecting a further fraction of the same drop in a vaccine tube to the action of centrifugal force on a small turn-table the density of the fluid of the blood apart from its corpuscles can be in a few minutes by the same method measured.

Of all methods of clinical examination of blood the estimation of the amount of hæmoglobin is the least satisfactory; the drop required is so large as to be sometimes obtainable with difficulty; great care is necessary to ensure an illumination of light approaching standard quality for comparison with previous and future measurements; the tint of the blood is altered not only in depth but in quality by its dilution during the estimation; the colour sense of observers differs, so that, as HEMING says, even the normal sighted may be divided into those with bluish vision and those with yellowish vision; from WEBER'S law we know the degree of difference distinguishable between comparable tints to vary not only with their quality but with their mere intensity. These and other difficulties make the hæmoglobinometer—charmingly simple instrument as it seems—a pitfall to students and others unpractised in its application. Results given by it must always be received with caution unless the conditions under which they have been obtained are known to have been correct. It is in clinical hæmoglobinometry that improvement is most wanted and probably most soon to be expected.

A class of observations on the blood beginning now to be fairly numerous comprises those dealing with its osmotic tension and its alkalinity. The importance of inorganic salts in the body is not likely to be underrated, for the organism will longer survive the withholding of all food than the withholding of inorganic salts from the food administered. The inorganic salts are not merely to replace those of the excreta, nor is it correct to consider them valueless as a source of energy within the body. Osmotic pressures are produced by them in the tissues—that is, in the cells and fluids of the body; and in virtue of those pressures they do perform an important amount of work. The cells are permeable by molecules of water, some, it is true, in one direction only. By molecules of salts many cells are only partly permeable, the degree of permeability varying with the species of the cell and the species of the salt. In a cell as outcome of its vital chemistry the number of molecules increases by decomposition of individually more complex bodies into others severally simpler. The increased number of molecules in the cell fluid increases the osmotic tension in the cell. Movement is thus set up in a direction depending upon the permeabilities of the cell, the molecules of the salt being restrained from free passage out under the pressure by the only partial permeability of the cell for them; the cell does not, however, hinder the entrance into it of the molecules of water in the fluid bathing its periphery. These movements lie at the root of absorption, transudation, and secretion. To KOEPPE we owe chiefly at present the clinical observations on the osmotic pressure of the blood; it offers a large field for investigation, for he finds it to vary considerably. In normal persons he finds it greatest soon after midday dinner. Probably closely connected with the variations in the osmotic tension of the blood are the variations in its alkalinity. It has been recently pointed out by KOEPPE, and in these columns by Dr. HUTCHISON,[1] that after the taking of food the blood becomes more markedly alkaline. That is, of course, the time when the acidity of the urine is least. Both phenomena are probably the reverse side of the process that results in the appearance of free acid in the gastric contents. It would appear that in few diseases is the alkalinity of the blood increased, whereas it is diminished in a large number. The clinical estimation of the alkalinity of the blood is not without its difficulties and sources of error, but it rightly attracts an increasing number of observers. It is always to be remembered that however valuable a series of observations on the blood carried out carefully for any one of the above-mentioned estimations may be, it is always greatly, indeed, surprisingly, enhanced by the coincident performance of other estimations dealing with some or all of the other characters of what Faust called the "*ganz besonderer Saft.*"

THE correspondence which during the past six weeks has arisen out of the article entitled "A Case of Functional Aphonia in Man, Treatment, &c., with Special Reference to so-called Varicose Veins at the Base of the Tongue," contributed to these columns by Dr. H. TILLEY,[2] is instructive. It demonstrates the existence in clinical interpretation of more than one familiar fallacy, and would be hardly calculated to tend to exalt the present position of lingual and laryngeal pathology, were it not that the preponderance

[1] THE LANCET, March 7th, 1896.
[2] THE LANCET, Feb. 15th, 1896.

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of opinion lies very much in one scale. The whole matter in debate turns upon (*a*) the existence of lingual varix as a definite morbid state; (*b*) the symptoms associated with the condition when it does exist; and (*c*) the proofs that (*a*) and (*b*) are etiologically related. It is remarkable how divergent are the opinions that have been expressed upon the first of these points. Dr. TILLEY has not seen a genuine condition of varicose veins at the base of the tongue; nor has Professor CHIARI, as reported by Mr. FOURQUEMIN. Dr. MCBRIDE thinks they are very rare. Dr. WATSON WILLIAMS believes the condition often exists but that its importance is exaggerated. Mr. BUTLIN, Dr. DE HAVILLAND HALL, Dr. GREVILLE MACDONALD, Dr. SEMON, and Mr. C. J. SYMONDS endorse the opinions of Dr. TILLEY and Dr. WATSON WILLIAMS. Mr. LENNOX BROWNE, on the other hand, asserts by his writings, which appear to have been the earliest on the subject, that lingual varix is very common; whilst Mr. WINGRAVE points out a fallacy in its recognition. Of course, if it could be shown that the condition never occurs there is no more to be said. But granting it to exist in varying degree and extent, is it of any material significance? Here, again, we find two camps—those who believe it is of little or no importance and those who, like Mr. JAKINS, hold and teach that "varix of the tongue is one of the objective causes of many subjective throat symptoms." Mr. LENNOX BROWNE may be considered the pioneer in this teaching also, but even he declares that amongst these objective symptoms "functional aphonia" is not to be reckoned, and in a further letter which we have received from him he repudiates any implied charge that such a relationship is taught at the Central London Ear and Throat Hospital. Whether this be so or not—and the opinion that any one man may have of the teaching in this particular school has nothing to do with the merits of the matter in discussion—Dr. TILLEY certainly has met with cases, three of which he detailed in his paper, where functional aphonia had been treated by cauterisation of alleged varix of the tongue. So that at any rate it would seem that by some persons the general teaching of the importance of lingual veins has been specifically applied to the treatment of functional aphonia. "Functional aphonia" apart, it may still be asked whether there has been adduced any sufficient reason for the adoption of such a treatment as cauterisation of a condition which, in the view of the majority of those who have addressed us, is of no material importance whatever. The letter of Dr. HARCOURT COATES supplies an answer, and we are bound to say that nothing has been advanced to prove that dilated or varicose veins at the base of the tongue (the very existence of which seems largely a matter of individual bias) are ever concerned in the production of symptoms of such gravity as to require their radical removal. There has been little evidence adduced in support of the main thesis that these vascular changes do play a part in the production of laryngeal disorder; whilst, on the other hand, there has been very positive proof that patients may be submitted to such cauterisation without any resulting good. On the whole, in spite of the fact that Mr. LENNOX BROWNE has within three years seen no fewer than 438 examples of lingual varix out of a total of 1547 patients, it is impossible to escape from the conclusion that it can only be exceptionally necessary to deal radically with what is, after all, an unimportant departure from the normal state of the bloodvessels in this region.

Annotations.

"Ne quid nimis."

THE PASTEUR MEMORIAL.

THE British section of the international memorial to Pasteur has now assumed definite shape, and the provisional committee, which already includes the names of the Duke of Devonshire and the Duke of Westminster and many distinguished men of science from all parts of the United Kingdom, held its first meeting last Friday at the rooms of the Royal Society, Burlington House, under the presidency of Sir Joseph Lister. It was unanimously decided to apply for subscriptions towards the erection of a monument to Pasteur in Paris from persons in the United Kingdom, India, and the colonies interested in science and the various industries which have been benefited by Pasteur's labours. An executive committee was formed, consisting of Sir Joseph Lister, Sir John Evans, Sir Henry Roscoe, Dr. Thorne Thorne, and Professor Percy Frankland (honorary secretary). Subscriptions may be sent to Sir John Evans, who will act as hon. treasurer, at the Royal Society, Burlington House, S.W.

THE LONDON WATER BILLS.

AFTER the introduction of Lord James's Bill in the House of Lords last Monday week proposing the creation of a water trust it was not surprising that the Water Bills of the London County Council relative to the acquisition of the entire property of the eight companies should be rejected. The supporters of the Government argue that it is for this newly created trust to decide as to future policy, and the outside bodies being represented on the new committee would be in a better position than at present to make any desirable arrangement with the companies. The arbitration clauses in the London County Council Bill should, in the opinion of Mr. Chaplin, be abandoned, because if these Bills were allowed to proceed they would entail enormous cost and trouble on the parties interested without resulting in any compensating advantage. On the other hand, the London County Council urge that purchase, if it is to take place at all, must take place quickly, otherwise the addition of capital which is being proposed by some of the companies would advance the value of the undertakings by 22 per cent. The consensus of opinion in the House of Commons last Tuesday appeared, however, to be that the County Council were proposing terms unfair to the companies and their shareholders, and that the County Council had been to blame for approaching the companies in a confiscatory spirit and a spirit of extortion. As suggested by Mr. Chamberlain—and there is no better authority on municipalisation—terms so exorbitant and so unreasonable could not be conceded by the Government or the other interests concerned. If, he added, the County Council would accept the proposal made by Mr. Chaplin to allow the five Bills promoted by the water companies themselves to go forward, subject to an instruction to the committee to limit the operation to works required for such an increase of th water-supply as was needed in the public interest, they might even now retain the Bills, and at the end of the session a new water trust board would be constituted with

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full power to carry out an amicable agreement with the companies or, if necessary, to go to arbitration under the compulsory clauses. Since the County Council Bills were, however, in direct conflict with the object of the Government Bill the Government had no alternative but to oppose the second reading. On the House dividing there were for the second reading 125 and against 287, giving a majority of 162 for its rejection.

A POOR-LAW MEDICAL OFFICER AND THE AGED POOR.

AT a meeting of the London and District Poor-law Officers' Association, held in the board-room of the Islington guardians, St. John's-road, Upper Holloway, on March 20th, Mr. R. W. Wilson, the Medical Superintendent of the Croydon Union Infirmary, moved the following motion: "That in the opinion of this meeting of Poor-law officers the time has arrived when boards of guardians should take into their serious and earnest consideration the necessity of providing for the aged and infirm inmates of the workhouses accommodation which will be more suitable to their infirmities and other requirements than now exists. That such accommodation should be separate and apart from the workhouse, and be under the superintendence of a medical man assisted by a nursing staff rather than, as at present, under the control of a disciplinarian; with such altered circumstances greater latitude could be allowed and privileges afforded the deserving and genuine poor (subject to certain restrictions) which are now impracticable under the existing workhouse regulations." In moving this resolution, Mr. Wilson said that he did not wish in the slightest degree to reflect adversely upon the humanity of workhouse masters or to suggest that they were unfit to have under their control the aged and infirm. He had been connected with the Poor-law for some years, and the feeling had grown stronger in him year by year that the housing of the aged and infirm in the same building as the able-bodied was altogether undesirable, hence he had been led to propose the resolution which was before them that evening. The reluctance which respectable people had in entering a workhouse was in part caused by the dread of having to associate with disreputable companions and by an exaggerated fear of the discipline and interference with absolute freedom which were imperative in such establishments. To the aged and infirm this strict adherence to routine was bound to prove irksome, and however much the master might wish to make their remaining years as happy and comfortable as possible the discipline which had to be maintained and the regulations which had to be observed frequently debarred him. To his mind a distinct, if not a a complete, drawback to the various schemes for ameliorating their condition was the congregating together of the aged in large rooms. Under such a plan it was impossible for those in authority to make themselves acquainted with the individuality of those for whom they had to care and any little special relaxation or indulgence in the way of extra leave or diet immediately aroused the jealousy of the other inmates, and promoted dissatisfaction and disaffection. The scheme he would propose would be to have a series of small rooms where not more than six should live together. Meals would be served in the rooms of the inmates instead of in a large dining hall as at present, thus allowing greater latitude in the way of diet; and dormitory accommodation would be on a similar plan. It might be argued that his scheme would not allow of discipline being maintained, but he did not think that a larger amount of liberty would be prejudicial to discipline. He would go farther and say that the alteration in the structural arrangement of the workhouses which would permit of complete classification would tend to the reclamation of the incorrigible and vicious. As regarded the latter part of his motion—that the building should be under the direct control of a medical man—he did not seek to provide appointments for his own profession; he was thinking only of the interests of the aged and infirm. In such an institution as he advocated a medical officer would be a necessity in any case, and inasmuch as the present Poor-law infirmaries were administered by medical men, why not have a medical man to administer this institution. As a rule a medical man could better attend to the requirements of the aged and infirm than a layman. He was of the opinion that the infirmaries should be kept entirely for the acutely sick, whose recovery was frequently retarded by association with the aged sick. In connexion with the proposed infirm house he would provide sick wards for those who were totally disabled or were afflicted with the maladies incident to old age. In regard to the nursing staff there were many elderly nurses who did not come up to the standard now required of infirmary nurses, but who were excellent and worthy women. These were the women he would employ, and they would also be able to look after the management of the day rooms as well as the wards of the sick bay. In conclusion, he believed that the time was coming when this question would have to be faced seriously, and the humane and generous treatment of the poor was an advance he for one would do all he could to help. He did not wish to advocate fancy ideas in any way; on the contrary, he was sure the scheme he had brought forward that night was practical and could be carried out successfully.

THE ALLEGED MURDER BY A LIVERPOOL DENTIST; ACQUITTAL.

HERBERT WESTWORTH, a Liverpool dentist, was arraigned before Mr. Justice Kennedy at the present Liverpool Assizes for the murder of his wife under the following circumstances. About midnight of Dec. 12th last Dr. Gordon was hastily summoned by the husband to the deceased on account of flooding. She was a woman of intemperate habits, who had had children but none recently. As she had on one or two previous occasions had a free discharge after delayed menstruation Dr. Gordon did not attribute as much importance as he otherwise would to the hæmorrhage. He found her lying on a sofa in a state of unconsciousness from drink and bleeding from the vagina. With the help of her husband he carried her upstairs to bed and plugged the vagina with lint. Early the next morning she died. On removing the plug wounds were found in the vagina and consequently the coroner was communicated with. A post-mortem examination revealed between forty and fifty recent bruises on the legs and arms and four wounds in the vagina. Of the latter one was just inside, near the orifice of the urethra; a second an inch higher up, also on the front wall (these only penetrated from half an inch to one inch); a third at the left-hand top corner, which went into the left broad ligament causing a great deal of extravasation of blood, but did not enter the peritoneal cavity. The fourth wound passed out once into the peritoneal cavity between the bladder and uterus, struck the top of the sacrum, perforated the tissues in front of the spine, ran alongside the aorta, entered the peritoneal cavity again near the left kidney, perforated the mesentery of the top of the jejunum twice, and passed through the left kidney. A second plunge had sent the instrument up to the pyloric end of the stomach, which was bruised, but not perforated. Other parts of the bowel, mesentery, and omentum were bruised. The first three wounds in the vagina would admit the little finger, but the fourth was much larger. The deceased was found not to be pregnant and the uterus was quite healthy. Blood was found in quantity on the deceased's clothes, but only a few spots on the prisoner's clothing. It was also found on the wooden handle of a small brass poker in the room.

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It was admitted by all the medical witnesses that death was due to shock from the injuries and consequent hæmorrhage, and that the instrument used might have been the small poker, which must have been cleaned after being used. Mr. F. T. Paul, called on behalf of the Crown with Dr. Gordon and Mr. Barnes, held that the bruises could only have been made with a heavy instrument such as the round head of a poker, as, though most of them were small, the extravasation of blood penetrated deeply into the muscles. They also held that it was physically impossible for such internal injuries to be self-inflicted. Mr. Whitehead of Manchester, Dr. Bennett, and Mr. Mulliner, held, on the contrary, for the defence, that the bruises might have been all caused by Dr. Gordon and the husband carrying the deceased upstairs. The internal injuries caused by the poker they maintained, were self-inflicted. Mr. Whitehead was sure the deceased would have had ample power to inflict these injuries from behind whilst lying on the left side of the sofa, and considered that this was a rational effort to procure abortion, if any such effort could be called rational. At the post-mortem examination Mr. Paul, Dr. Gordon, Mr. Barnes, and Mr. Mulliner were present, whilst the body was not seen by Mr. Whitehead and Dr. Bennett. The theory of the defence rested, amongst other points, on the statements alleged to have been made by the deceased to a female witness, as sworn to by her at the trial, that she would have no more children and that she "would take care that none would come." The judge summed up, stating the points which were greatly in the prisoner's favour, who, after a few minutes' deliberation on the part of the jury, was acquitted.

DECIDUOMA MALIGNUM.

THE Johns Hopkins Hospital Reports, vol. iv., No. 9, contain an able monograph by Dr. J. Whitridge Williams on "Deciduoma Malignum." The author reports his pathological examination of a case, and makes a critical review of the literature of the subject hitherto published. Up to the present twenty-five cases of this kind have been described under the names of deciduoma malignum, sarcoma uteri-deciduo-cellulare, or by more or less cognate terms. Dr. Williams' case (originally under the care of Dr. C. Harris of Baltimore) was that of a negress aged thirty-five. She had had five pregnancies, the third ending in a miscarriage at the ninth month and the others at full term. The puerperium in the confinement for which Dr. Harris attended her (the labour was slow but otherwise normal) was not entirely normal, the temperature remaining at about 100° F., and she felt very much prostrated. A fortnight afterwards a painful nodule appeared on the right labium majus, which gradually increased in size and ulcerated, until it became a large sloughing mass which occupied nearly the whole of the right labium and the adjacent tissue, in the centre of which there was a large fistulous opening into the rectum through which pieces were discharged. Death ensued in about three months from septicæmia. At the necropsy, in addition to the local mass, the left lung was seen to be occupied by a large number of irregularly-shaped round or oval nodules varying in size from that of a pea to a walnut. They were greyish-red in colour; some presented soft, greyish areas in their centre. They easily broke down under the finger, were readily enucleated from the surrounding lung substance, and closely resembled placental tissue in appearance. The right lung was likewise studded with large numbers of similar nodules. The heart was normal. The liver presented numerous hæmorrhagic nodules. The spleen was enlarged and contained several small metastases. In the kidneys were several dark-red hæmorrhagic areas. Dr. Williams details a most careful microscopic research which may be briefly summed up as follows:—He had to deal with a remarkable new growth. The greater part of the original tumour, as well as the metastases, were made up of blood, which was either free in the tissues or enclosed within cavities formed by the tumour cells, whilst its cellular part was composed of large elements, some of which appeared as epithelial cells (?) and others as larger or smaller protoplasmic masses or syncytium. Nowhere in the tumour could any trace of bloodvessels or reticulum be discovered, and it appeared to be composed solely of epithelial cells (?) and masses of syncytium, which were grouped together with apparently no attempt at tissue formation, but which lay free in areas of hæmorrhage without apparent integral connexion with the surrounding tissues. The metastases presented the same characteristics and appeared to be thrombotic or embolic masses of cells which multiplied in the vessels and caused their rupture, with consequent hæmorrhage into the surrounding tissue. In these hæmorrhagic areas the cells would seem to have lived on and multiplied until they formed masses too large to be nourished simply by osmosis, when they underwent necrotic changes. In connexion with this subject it should be noted that the April meeting of the Obstetrical Society, to be held on April 1st, promises to be of unusual interest. Papers will be read by Dr. Herbert Spencer, Dr. Eden, and Mr. Rutherford Morison of Newcastle on that grave and remarkable disease—deciduoma malignum. Sänger, eight years since, described a case of malignant disease of the uterus following abortion with metastases in the lung and elsewhere made up, like the primary tumour, of decidual cells. Some of the cases followed normal pregnancies, others occurred after abortion. No case has as yet been fully reported by any observer in the United Kingdom. We believe that some British authorities are inclined to look upon the disease as simple sarcoma aggravated by gestation. Fellows of the Obstetrical Society look forward to an interesting discussion.

THE CUSTODY AND CARE OF PAUPER IMBECILES.

AN inquest upon the body of a Southampton pauper imbecile, who committed suicide three weeks ago, proved a lengthy affair before it was finally concluded on March 17th. It was twice adjourned on the protest of the coroner (Mr. W. Coxwell) as to the guardians' responsibility in the matter. The man, who was subject to epileptic fits, was allowed out occasionally and considered "safe." The male imbeciles number 45, and in addition the male nurse on night duty had to look after 104 patients in the infirmary. He was administering medicine to a patient in the infirmary when it was reported that the lunatic in question was missing, the wards in the nurse's absence being in charge each of a wardsman. The place was searched, but the man had got off the premises, and before he could be captured jumped from a bridge on to the railway. The first inquiry was adjourned to allow the Local Government Board to be communicated with. The Board was not, however, represented subsequently. The coroner said it seemed that the workhouse was overcrowded, that the sick wards had been used for imbecile wards, and that the Local Government Board had three years before made certain representations in the matter. Mr. Russell Bencraft, medical officer to the Southampton Workhouse, thought forty-five imbecile patients too many for one nurse to properly attend to, added that there was insufficient accommodation for more attendants, and said that the guardians had practically made all the provisions they could to relieve the overcrowded portions of the house. A passage of arms occurred between the coroner and the clerk to the guardians (Mr. C. C. Smith) when the former asked for the correspondence with the Board alluded to above. Mr. Smith said the coroner had no right to call for correspondence as to the workhouse

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generally, but only as to the imbecile wards. The coroner rejoined that he did not "intend to be made a puppet of," and that he did not see why the guardians should object unless there was something behind the correspondence. Ultimately, after much evidence in detail, the jury found a verdict of "Suicide whilst of unsound mind," and while exculpating the guardians expressed the opinion that the outer wall might be better protected. We are sorry that we cannot compliment the guardians of the Southampton Workhouse on the above case. The several points of alleged overcrowding, of the use of the sick wards of the infirmary for the housing of imbeciles, and the apparent insufficiency of the nursing staff are one and all of serious import in the administration of the Poor-law, in such a place as Southampton especially. Whatever may be said as to the finding of the jury in the particular instance, there must clearly have been blame attaching somewhere to enable the pauper lunatic in question to escape in the night time, and the story as related raises the question as to how it came about that there is but one male nurse on night duty and saddled with the care of 150 patients, 45 of whom are imbeciles. There were, it is true, wardsmen also on duty, but were these men merely pauper inmates of the workhouse or were they trained attendants? A system by which untrained pauper attendants are placed in positions of trust towards their unfortunate fellows who chance to be in ill-health is one that should cease at once; it has, in fact, been too long tolerated already. And we think it goes without saying that where infirmary wards have been designed for patients in excess of the nursing staff that can be accommodated, steps should be taken in some way to ensure that the inmates shall have adequate attention of the right kind. Where, as would seem to have been the case in the present instance, the infirm wards are used as imbecile wards any overcrowding of patients is to be the more deplored.

STREET NOISES.

WE are very glad to see that an attempt is being made to deal with an intolerable nuisance. Mr. Jacoby, Mr. Arnold Forster, Mr. Boulnois, General Goldsworthy, Colonel Sandys, and Mr. J. W. Sidebotham have brought in a Bill which provides for the registration of itinerant musicians, makes it an offence for any such to ring at a door and ask for money, and in addition contains a clause to the effect that persons "who, in the vending or attempt to vend any articles, &c., loudly and persistently call out or shout," shall render themselves liable to a fine or imprisonment in default. This is really admirable, and we exhort every member of the House to vote for this Bill. Piano organs, German bands, &c., are bad, but they are nothing to the howling ruffians who yell "Winner!" and "Extry!" The Strand from eleven A.M. till any hour at night is a perfect pandemonium. Nor are the quarters of the town further removed from newspaper land exempt. Kensington is virulently infested with these pests. We believe the professional title is "runners." Their favourite trick is to "work" a street in couples, both have voices compared to which a fog-horn is as dulcet as a nightingale, and taking one side apiece of the street they bellow, a semitone apart, horrific and unsavoury details of tragedies which generally, be it said, have never happened. Even on Sunday there is no rest, for then the nuisance is continued by shrill-voiced infants, who, judging by their articulation, all suffer from adenoid vegetations. Be it understood that we do not object to Sunday newspapers, it is the yelling which galls. While Mr. Jacoby is about it he might insert a clause to squash "The Society for the Relief of Distressed Washerwomen," or some such name, which drops teaspoons, scissors, soap, soda, metal polish, hairpins, and other articles into letter-boxes, with an intimation that the collector will call for the article and take it away if not approved of. Of course householders can, and probably do, destroy the things, but that does not mitigate the nuisance of some one having to answer the bell. But the newspaper fiend is the worst pest, and if Mr. Jacoby can only reduce him to silence he will rank with Jenner, Lister, Peel, and Raleigh as a benefactor to his country.

A BETTER WAY AT THE AQUARIUM.

WE had occasion some time ago, under the heading "A Beautiful World," to comment upon the hideousness of the average English poster. We have also lately felt bound to protest against certain most undesirable forms of "entertainment" at the Aquarium, but for the latest show at this place—namely, that of artistic posters—we have nothing but praise. The French are still far ahead of any other nation in this particular line of art, but England may well be proud of the posters of Dudley Hardy, the Brothers Beggarstaff, Bernard Partridge, and Paleologue. The day cannot be far distant when the wearied eye and brain will be refreshed in the street with many more artistic posters than at present. No. 70, by De Feure, a harmony of blue, green, and violet, is most refreshing. The artistic poster is as much a constituent of a hygienic life as a beautiful building.

THYROID PREPARATIONS IN ENLARGEMENT OF THE THYROID GLAND.

DR. STABEL, assistant of Professor von Bergmann, stated at a recent meeting of the Berlin Medical Society that he has treated ninety-three patients partly with an extract of fresh thyroid glands of wethers and partly with thyroid tablets. In twenty-five cases glands of freshly slaughtered animals reduced to a pulp and mixed with water were used exclusively, the average quantity taken by a patient in a week being 20 grammes, although in some cases it rose to 34 grammes. In the hot season the patients complained of slight gastric troubles, which, however, disappeared as soon as the thyroid preparation was preserved in ice. There was only one instance in which the treatment had to be discontinued on account of its disagreeing with the patient. The thyroid gland regained its normal dimensions in only four of the twenty-five patients treated in this way, and in only two of these four was the good effect permanent, for the other two had a relapse after the expiration of a month. In all the other cases there was an obvious reduction in the size of the gland, and with two of the patients this was permanent, but it generally began to swell again whenever the treatment was stopped. The frequency of the pulse was a little augmented, but never so much as to make an interruption of the treatment necessary. A number of patients after having taken the fresh glands for several weeks were then treated by tablets. In another series these tablets were used from the beginning of the treatment. The results were much less satisfactory. In the first series the average diminution of the circumference of the neck was 3·3 centimetres, and in some cases even 6 or 8 centimetres, but in the series to which tablets only were administered the reduction was no more than 0·9 centimetre; in three cases an increase of the circumference of the neck was observed. According to Dr. Stabel this failure of the tablets is due to the fact that they were not able to give the same quantity of them as of the pure extract without producing serious troubles, for after the administration of half a tablet or a tablet and a half, each containing 0·3 gramme of the extract, the pulse at once rose to 150 per minute and remained so for weeks even although the remedy was no longer given. Dr. Stabel further mentioned the case of a man who took a large quantity of tablets in the hope of reducing his obesity and became maniacal within a few

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days; œdema of the brain was found at the necropsy. Thyroid extract was used also for Graves's disease, but neither the pure extract nor the tablets had any favourable influence. In some cases the pulse became more frequent and the general state worse, so that thyroid treatment is contra-indicated in Graves's disease. In the subsequent discussion Professor Ewald said that he had treated nineteen patients with tablets, but in no case did the goitre disappear entirely. The gland sometimes became smaller, but not unless the patients were young, and the effect was only temporary. He did not observe the complications mentioned by Dr. Stabel, but he only used tablets sent from England, whereas those administered by Dr. Stabel were made in Dresden. Perhaps the former preparation was better. Dr. Mendel and Dr. Senator agreed with Dr. Stabel that thyroid treatment should not be used in Graves's disease.

LIABILITY OF THE COUNTY COUNCIL FOR MEDICAL CHARGES.

Is the County Council responsible to medical men for services rendered in response to calls by the officers of the parks of the County Council? The question is a very proper one and was raised in an action brought in the Wandsworth County-court before Judge Lushington by Mr. John A. Bouck with regard to the treatment of a child for an accident sustained in the park involving a wound in the tongue causing danger of fatal hæmorrhage. The County Council, always free in its use of the ratepayers' money, pulled up at the claim of the medical profession, though the practititioner was called in by its own officer. Mr. Tanner, in its defence, submitted that under no circumstances could the County Council be liable for a person who was injured whilst attending a public park for recreation. Unfortunately the judge threw no light on the important question though admitting the public interest of it. He urged that the parties should talk it over. In the end Mr. Tanner agreed to pay, and the plaintiff to accept, half a guinea, but Mr. Tanner did not agree to judgment for that amount and required the case to be struck out. This is most unsatisfactory.

MANCHESTER MILK-SUPPLY.

AT a recent meeting of the Manchester Medico-Ethical Association the indefatigable medical officer of health of Manchester, Dr. Niven, read a paper on Improved Milk-supply. He adverted to the fact that in Manchester (and, it might be added, in many other places) it is often supplemented by unsuitable materials for infants as bread, soup, and meat, and said that many of the poorest people considered they could not afford milk, which would be wasteful economy if that supplied to them "were not itself of so destructive a character." This is, of course, a serious charge, but he proceeded to justify it by describing the dirty condition of the samples he had obtained, the worst specimen not coming from a poor quarter of the city, in all of which there was a deposit of dirt, in three of the samples quite a thick layer. Milk was eminently adapted for the growth of numerous injurious micro-organisms, "and in its passage from the cow to the consumer it was sown with micro-organisms in plenty." Though giving credit to many of the cowsheds in and around Manchester for being clean and well ventilated, he said there were a large number that were dark, dusty, and malodorous, with a space allotted to each cow insufficient for a human being, and that the milk, in fact, received its grossest pollution at the source. The corporation had done much to reduce adulteration with water "drawn, it might be, from a well lying below the farm midden or dug in the middle of a well-manured field." He attributed to the state of the milk-supply "a large share of the immense death-toll from wasting diseases, from tubercular disease of the bowels, and from summer diarrhœa." He said that the statistics of mortality and experimental evidence clearly indicated that children largely contracted tabes mesenterica through being fed on milk from tuberculous cows. Tracing the steps that had been taken in this country for improving the milk-supply, he said the provisions for the protection of the public had hitherto proved unavailing. Dr. Niven then gave an account of the working of the Copenhagen Milk Supply Association and spoke of the wonderful progress made in America in the direction of a pure supply. Sir Bosdin Leech and Alderman Walton Smith, chairman of the sanitary committee, were present as visitors, and the former described what he had seen at Copenhagen. From small beginnings the company was now dealing with the milk of 6000 or 7000 cows distributed over fifty farms. Veterinary surgeons inspect and report on the health of the cows, the conditions of shippons, &c. The servants handling the milk are required to observe scrupulous personal cleanliness, and, indeed, all throughout cleanliness is the central aim. He strongly supported Dr. Niven's suggestion for the formation of a company similar to that at Copenhagen. Dr. Ashby pointed out that those who advocated the formation of a dairy company did not suggest that it would do away with the evils of back-to-back houses and other insanitary arrangements, but it would cope with one very serious danger, especially to young children. "What was wanted was an institution where not only pure milk could be obtained, but which would include a laboratory in which milk could be prepared in accordance with the prescriptions of medical men." Numerous members took part in the discussion. Alderman Walton Smith said that the sanitary committee so far took cognisance of the adulteration of milk by water and the abstraction of fat, but Dr. Niven had opened his eyes to the need of other means of protection. Many letters have appeared in the local papers since this meeting took place, in some of which microbes are not treated with respect, and many objections are made to Dr. Niven's suggestions, but the writers do not seem to realise that they are simply advocates for dirt instead of cleanliness.

FLOODS IN THE THAMES VALLEY.

"Let wealth and commerce, laws and learning, die,
But leave us still"—our old Thames floods.

ANOTHER blow is about to be inflicted upon the privileges of Eton. That ancient foundation "has suffered many things at the hands of physicians and ....," but we will not pursue the quotation. Parliamentary Commissions have worked their will upon her, and one by one her ancient privileges are fast disappearing. If there was one matter—not, perhaps, peculiar to Eton, but intimately bound up with her life—which it might be thought a Government—and, above all, a Conservative Government—would spare, it is the Thames flood. And yet we see that a deputation, including the headmaster of Eton, has approached the Board of Trade with reference to the prevention of floods—nay, more, Mr. Ritchie has promised that the Board would use its "persuasive powers"—delicate euphemism!—with the Thames Conservancy to get them to lend a sympathetic ear to the deputation. Unless Eton boys have changed since we knew them they will rise in revolt and be in full sympathy with what a distinguished Etonian has written. "Can ye bridle the deep sea with chains"? is a question which may well be asked of the Thames Conservancy—for, after all, the Thames is a branch of the sea. If there are to be no floods how many of the pleasures of the football and Easter halves will be done away with. Gone will be the delightful discomfort undergone when "my tutor" would announce at dinner that no more coals or beer were procurable since there were four feet of water in the cellars. Never more will boys come in to school half an hour late

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with "Please, sir, I couldn't get a punt," or be able to show up a "dem'd moist, unpleasant" piece of paper with blotted *y*'s and *x*'s on it, as "My extra work, sir; it fell into the water." Really Dr. Warre ought to know better. True, the distress in the low-lying parts of Windsor is terrible during the flood and of course sentiment must give way to hygiene, but often in the toil of London life we long for a sniff of the old Thames mud—the alluvial slime which covered everything in the brave old days when the waters swirled along "Judy's-passage" and Gasworks-lane was full of water and drowned pigs. None the less we trust that measures will be taken to prevent these floods and their disastrous consequences.

THE PUBLIC AND POISONS.

A VERY short time ago we commented on the ease with which the public from time to time obtain large quantities of poisonous substances in spite of the laws which are meant to prohibit the sale of poisons. In the case referred to the poison was arsenic, which was sold mixed with other substances for the purpose of killing weeds, and now a further example is afforded by a case which occurred at Tenbury, in which a man was prosecuted for selling strychnine in large quantities. It had been thought for some time that poison had been obtained in the district owing to the death of several animals, and in this particular case a shilling's worth of strychnine was sold which the analytical chemist declared was sufficient to poison a small army of men. It is without doubt most important to prevent the illegal sale of such poisons and every possible means should be used to check it.

DOSING OF INFANTS.

A NINE months' old baby had a cough and was also troubled with its teeth. The mother, on the advice of a neighbour, mixed a pennyworth of castor oil, a pennyworth of laudanum, and a pennyworth of syrup of rhubarb, and gave the child a teaspoonful of the mixture. It had the desired effect of composing the infant, but so effectually that the child never woke again. And this is an enlightened age, when ignorance and carelessness of such a kind do not come under legal restrictions. Such cases are not uncommon, but that by such means the surplus population is weeded out is not sufficient justification for their occurrence. The responsibility which the officious neighbour took upon herself in prescribing deadly poison for another woman's child was a very serious one. It would not have been so lightly taken had she understood that in the event of her unintelligent advice resulting in fatal calamity she might find herself in the dock on a very sound charge of manslaughter.

THE RESPONSIBILITY OF TREATMENT BY HYPODERMIC INJECTIONS.

AN inquiry was held by the coroner at Birmingham on the 23rd inst. relating to the death of a patient at the workhouse infirmary. The evidence showed that a man aged thirty-nine was admitted with acute bronchitis and an affection of the heart. The visiting physician, Dr. Short, ordered a hypodermic injection night and morning of a solution of strychnine. The nurse in charge sent hurriedly for the resident surgeon on the evening of the 18th, saying that she had by mistake given the patient an injection of five drops of a morphia solution equal to half a grain. Notwithstanding all remedies used the man died some two hours afterwards. The nurse stated that she had given twelve injections of the strychnine previously at the required times. The morphia and strychnine bottles were both alike in style and colour and form of label. The cupboard, which contained about forty such bottles, had been cleared out on the previous day, and the bottles she supposed must have become disarranged. The jury returned a verdict of "Death and added two sensible riders which selves to the authorities of this and viz., that as far as practicable all poi injections should be given under the su resident medical officers, and that the m exercise such supervision as to render i nu e to obtain or administer any inject prescribed for the patient.

IRISH MEDICAL SCHOOLS' ANI ASSOCIATION.

AT the annual meeting, held at th rooms on March 17th, Sir R. Quain, Bart., assumed office as President. The foll elected:—President-Elect: Professor A. Vice-Presidents: Dr. Gilbart Smith; Sir Director-General R.N.; Professor Cun and Dr. R. Heath. Council: Dr. Bourk Lough, Dr. Mapother, Dr. Nesbitt, Dr. Mr. Bredin, Mr. Carter, Mr. Hartt, Mr. S Thompson, Inspector-General Lloyd, R.N Jackson (Grenadier Guards), Miss Helen Treasurer: Mr. R. Jocelyn Swan. Hono R. O'Callaghan and Dr. H. G. Thompson. the members of the Association dined at the President, Sir R. Quain, being in the pany, which included many ladies, nu among those present were Sir Spencer We Thorne, C.B., Canon Fleming, Mr. R. Judge Bacon, Inspector-General Lloyd, a Wolseley, A.M.S. After the usual lo was proposed by the chairman, Dr. Jame "The Navy, Army, and Reserve Forces," t General Lloyd, R.N., and Surgeon-Major the latter alluding to the recent Ashanti which he has just returned. The toast was proposed by Dr. Cagney and repl Scharlieb, M.D. Lond., the Rev. Canon Honour Judge Bacon. Dr. P. S. Abrah the Council, replied to the toast of "T which was given by Dr. Thorne Thorne, of the chairman was proposed by Sir Spe Sir R. Quain replied. During the evening by Madame Ella Russell, Miss Edna Grove, Branscombe. The Association is to be c the success which it has attained.

THE CHARITY ORGANISATION SOCIE METROPOLITAN HOSPITA

WITHIN a few years after its establishm took up the question of the better organisa charities in the metropolis, and it has used it stantly to promote, especially in regard to more just and careful administration, and m provement in the administration of relief departments is due to the publications that i the meetings that it has held in advocacy of subject. Since the year 1887 it has urged th be established, after due consideration and wi existing interests, some kind of central hospit metropolis, and in 1889 a special committee issued a petition for signature by medical m and as a result the House of Lords grante Committee should be appointed to consider ject. That Committee reported in the year 18 the recommendations made by the society fo ment of a central hospital board. In 1895 question was again mooted and a large and

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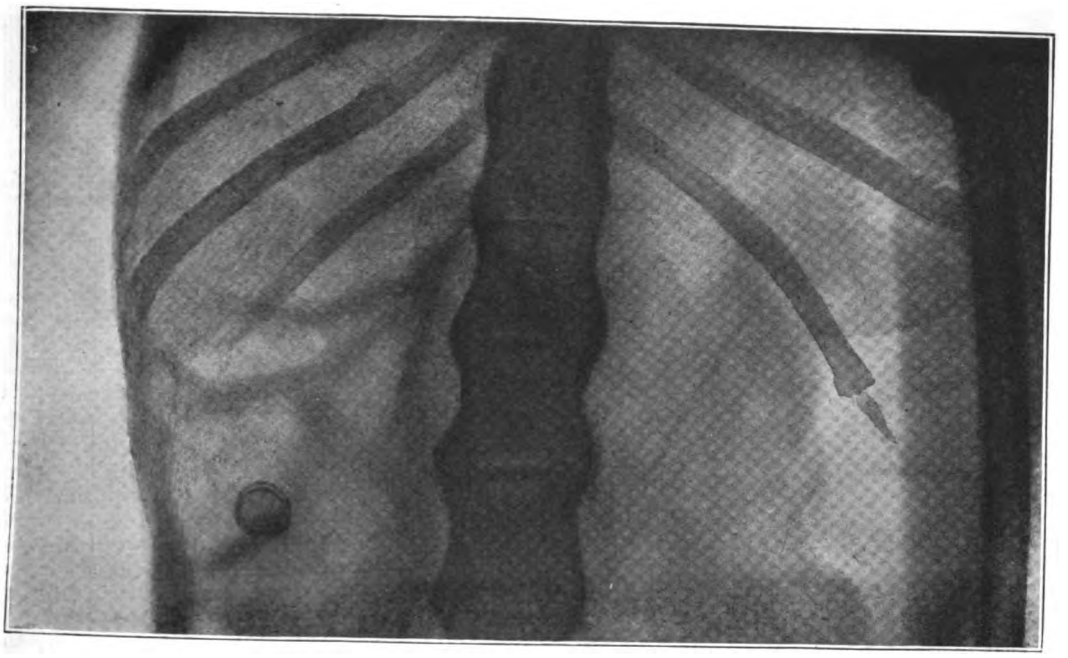

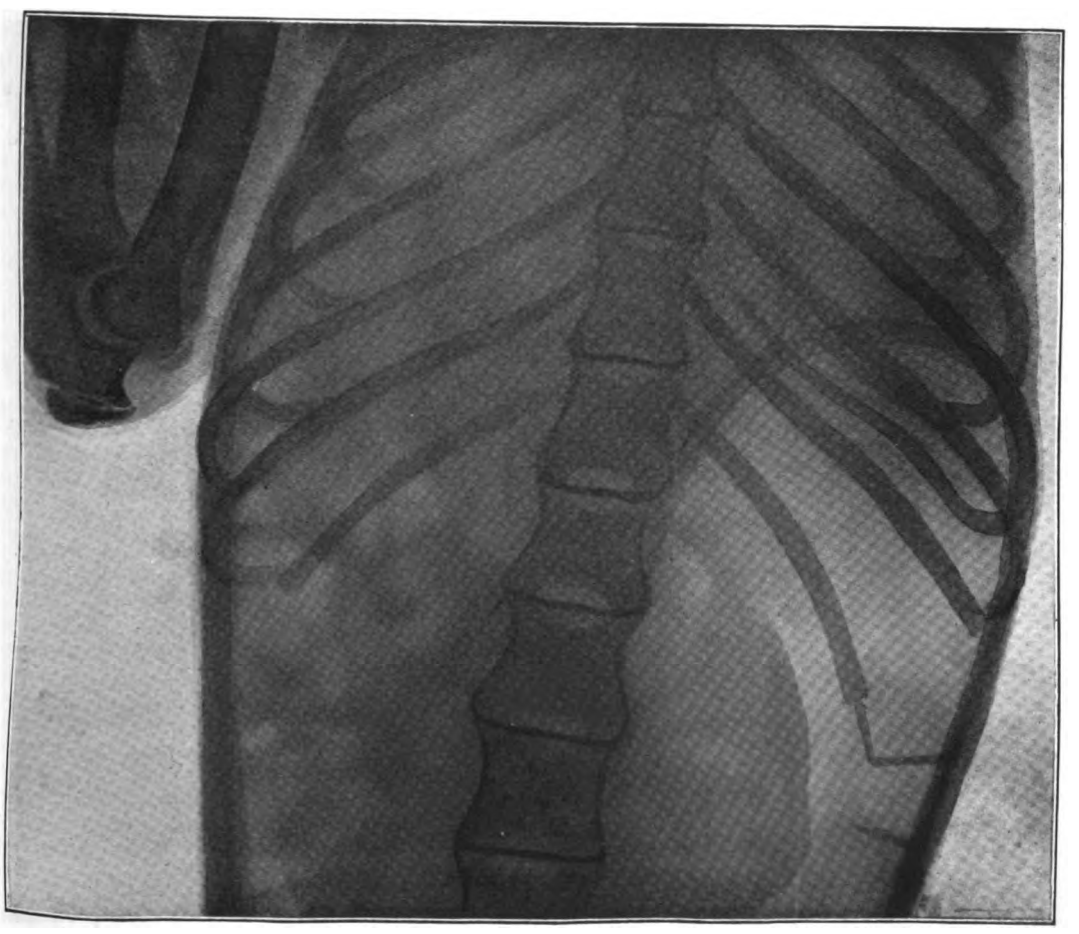

TO ILLUSTRATE THE ARTICLE ON THE NEW PHOTOGRAPHY.

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meeting was convened, at which meeting there was a general feeling in favour of the establishment of some kind of central board. The council of the society think that any scheme for the formation of a central board should be in conformity with the following general conditions:—

1. The board should, to a large extent, consist of representatives of the hospitals, both medical and lay.
2. The board, while not encroaching on the functions of the Hospital Sunday and Saturday Funds, should have at its disposal funds sufficient to enable it to make adequate grants to hospitals towards rebuilding, extension, sanitation, and other special purposes.
3. The board should be a corporate body, so constituted as to command public respect and exercise public influence.
4. The board should have no compulsory powers, but should issue an annual and other reports, giving information as far as possible in a comparative form on various crucial questions connected with their administration.
5. The board should discuss the larger and more important questions of policy in full meeting, but should delegate to committees the chief part of its work of reporting and visiting—subject, of course, to the board's approval.

The board should be able so to fulfil the above conditions as to keep alive the voluntary character of the hospitals of London, and the council proposes that a large committee should be formed, representing both leading members of the medical profession and laymen interested in charitable matters in London, with a view to carrying out, as far as possible, the proposals contained in this memorandum. A list of the members of the new committee will then be published, and a small executive committee appointed. We think that this course of procedure might be productive of much good, especially with regard to the abuses now so prevalent in out-patient departments, and we can only hope that the proposed meeting of a committee will be successfully carried out.

THE MALE NURSES' TEMPERANCE COÖPERATION.

WE have received the report of this excellent institution for the period March, 1895, to March, 1896. We are glad to see that the work of the institution is increasingly appreciated, both the membership and the demand for nurses being larger than in the previous year, while the average earnings of each nurse has been at the rate of £101 16*s.* for twelve months. The fact that all nurses sent out by the society are total abstainers is of itself, if not an absolute, at all events a fair, guarantee for steadiness and trustworthiness during an engagement, for it removes one cause of complaint which used to be somewhat common with regard to male nurses. It is alleged that there is a disinclination on the part of the large London hospitals to afford opportunities to male nurses of undergoing professional training in the wards. Surely it would not be difficult to allow men who are willing and anxious to learn access to the male wards; by so doing the female nurses might be relieved of many anxious cases the nursing of which is a sore tax upon a woman, and for which she is scarcely fitted.

BRITISH GUIANA.

THE Surgeon-General of British Guiana, in his report to the Government Secretary for the twelve months from April 1st, 1894, to March 31st, 1895, states that the health of the colony has been fairly satisfactory. There was the usual amount of malarial fever, whooping cough, influenza, bowel complaints, pneumonia, and other chest affections, but there has been no case of small-pox or yellow fever in the colony for some years, and no other infectious disease prevailed. On the arrival of a ship from Calcutta with coolies in February, 1895, it was found that there had been three cases of small-pox among the crew, with one death. After twenty-one days in quarantine from the date of convalescence of the last patient, during which time no fresh case occurred, the coolies were landed and remained free from the disease. Of the five public hospitals in the colony that at Georgetown is by far the largest, having 700 beds. During the twelvemonth 8493 in-patients were admitted and there were 1177 deaths. There were also 38,798 out-patients, and it appears that this department is liable to be misused in Demerara just as in London, for a black lady who drove up to the hospital in a cab, on being informed by the medical officer that she was not seriously ill and that he could not attend to her, not only became very rude, but told him that the cab was her own and that she would consult a private practitioner. In the leper asylums there were 381 patients (294 males and 87 females) on April 1st, 1894; 75 were admitted during the twelvemonth, 65 died, and 48 "were discharged for various reasons, chiefly absconding and remaining absent from the asylum." The present Surgeon-General (Dr. D. Palmer Ross, C.M.G.) entered into office in August, 1894, in succession to the Honourable Robert Grieve, C.M.G., M.D., who had retired on a pension after many years of service in the colony.

THE ISLINGTON INFIRMARY SCHEME.

IT looks as if Providence was going to intervene on behalf of the ratepayers of Islington and save them from a costly scheme for patching up the present workhouse and infirmary accommodation, which for some years have been condemned by the Local Government Board and by public opinion. It has been known for long that the small-pox hospital in which Marson did his classical work has been superseded by the Metropolitan Asylums Board hospitals. The guardians have received a letter from the committee of the hospital expressing their willingness to consider the sale of the site on which the hospital stands. This was felt by the Board to be a possible escape from very great difficulties. The site would in many ways be a model one and there is practically no other in the parish. To do the advocates of the patching-up scheme justice they showed a creditable satisfaction with this overture. We trust that no petty question of two or three thousand pounds will induce the guardians to lose a site marked out for their purpose.

THE MEDICAL PROFESSION AND THE LATE MR. GEORGE RICHMOND.

MR. GEORGE RICHMOND, R.A., who died on March 19th, at the advanced age of eighty-seven years, had been for many years connected with some of the most eminent physicians and surgeons of the century. A close friend of Brodie, of Sir Thomas Watson, and of Sir James Paget, he drew or painted many of the leaders of medicine and surgery since 1832, when Dr. Fox of Brislington, was limned by him. Among physicians perpetuated by his brush may be mentioned Sir Henry Holland, Dr. Latham (a very beautiful head), Dr. Alison of Edinburgh, Dr. Bence Jones, Sir Henry Acland, Sir Thomas Watson, and Sir George Burrows, Presidents of the College. Mr. Richmond always spoke of the portrait of Sir Thomas Watson, now in the Royal College of Physicians of London, as among his most successful works. He loved the man and gave his whole heart to the pourtrayal of his venerable and kindly face. The surgeons drawn by him were no less remarkable and include Partridge, Keate, Hawkins, Professor Syme of Edinburgh, Richard Quain the anatomist, Sir William Bowman, and Sir James Paget. In early days he drew two well-known apothecaries of the beginning of the century, Dr. Peregrine of Half Moon-street and Mr. Pennington of Portman-square, who told him that in the influenza epidemic of 1833 he had eight patients all over eighty years of age who all recovered under a generous treatment of turtle soup and champagne. Mr. Richmond gave a fine copy by his hand of Holbein's portrait of Dr. Butts, mentioned by Shakespeare ("'Tis Butts, the king's physician"), to the College of Physicians. The original is at Anthony in Cornwall.

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Charles Darwin, Lyell, Owen, Faraday, and Tyndall are among the other men of science who sat to him, and whose splendid reputations have been properly commemorated by his learned and sympathetic brush. In Mr. Richmond the world of art is owning the loss of a great personality.

THE CHIEF INSPECTOR OF FACTORIES.

SIR MATTHEW WHITE RIDLEY has made an excellent selection in appointing Dr. Arthur Whitelegge to be the chief inspector of factories in the Home Office. Dr. Whitelegge has done admirable service to the public as medical officer of health of Nottingham, and later as medical officer of health of the county of the West Riding of Yorkshire and of the Rivers Board. In these offices he has shown that his administrative ability and his statesmanship in guiding the policy of the authorities he serves are of a very exceptional character, and he has for some time been distinctly recognised as qualified for still more responsible duties if such could be found. The office which he has now accepted has not previously been held by a medical man, and we may therefore assume that the Home Secretary in making this appointment has been less influenced by Dr. Whitelegge's high professional qualifications than by the reputation he has won as an administrator. We think none the less that the varied knowledge which the Home Secretary will in future have at his service will prove of the utmost value in the Factory Department, and while we cannot but regret Dr. Whitelegge's separation from his past work we recognise the great gain to the public which will result from this appointment.

THE ROYAL MEDICAL SOCIETY OF EDINBURGH.

THIS dinner, given annually by the presidents, was held in the Royal Hotel, Edinburgh, on March 13th. The company numbered about sixty. Dr. Joseph E. Bowes, the senior President, occupied the chair, and the croupiers were his colleagues, Dr. W. Macrae Taylor, Dr. Kenneth Maclean, and Dr. Henry J. F. Simson. The usual loyal and patriotic toasts in honour of "The Queen," "Prince and Princess of Wales and Royal Family," "Army, Navy, and Reserve Forces," were proposed by the Senior President. Surgeon-Captain Watson replied for the army and Dr. Beatson for the reserves. The Senior President then proposed the health of their guest, Mr. Watson Cheyne, referring to his eminence as a surgeon and bacteriologist. Mr. Watson Cheyne thanked the society for the high honour they had done him, and said that it gave him great pleasure to revisit his old friends and *alma mater*. He was almost tempted to wish himself a student again when he considered the many advantages now offered; but from another point of view he was glad he was not, for the amount of work now demanded of the student of medicine was something appalling. He proposed "The Royal Medical Society." Dr. Macrae Taylor replied, referring to its present prosperity. Mr. James Robertson Young, honorary treasurer of the society, who had been connected with it for about half a century, was then presented with a handsome silver bowl 11½ inches in height, 14 inches in diameter, and weighing about 90 ounces, a gift from the fellows and members in recognition of his valuable services. The presentation was made by Professor Simpson, who referred to the good work done by Mr. Young not only for the society, but also for the laity generally, especially in connexion with the Merchant Company's Schools. Mr. Young, in conveying his thanks to the fellows and members of the society who from far and near had united to confer this high honour on him, expressed his gratification that so many of them were now eminent in their profession. He related incidents in the history of the society's finances and congratulated it on its present flourishing condition. He also thanked them on behalf of his wife for the gold bracelet which they had presented to toast of "The University" was then proposed by Taylor and responded to by Professor Green Maclean gave "The Medical Corporations." Dr. replied for the Royal College of Physicians of Edi Professor Chiene for the Royal College of Surgeo burgh. Dr. Henry Simson then proposed the heal Members." This was responded to by Professor Cr who gave some amusing reminiscences of his con the society; also by Professor Rutherford, who, h short his speech with the remark that he had b song instead. Songs were also contributed by Cheyne, Dr. Bowes, and Dr. Simson.

THE Bill relating to the publication of indece which was this week read a second time in th Lords is one of great interest to the profession in perhaps, we may add, to medical journalists in Unfortunately owing to the great pressure on o this week we are obliged to postpone until nex lication of an article on the subject which is alrea

IN view of the liberal response which is bei their public appeal in connexion with the festiva which the Prince of Wales has consented to Governors of Guy's Hospital have appointed a spe ment committee to deal promptly with all sur towards the re-endowment fund.

LORD BALFOUR OF BURLEIGH has appoint Richard Fraser, M.D. Edin., Professor of Materia the University of Edinburgh, to be medical adv Prison Commissioners, in succession to Sir Douglas resigned.

THE Queen has sanctioned the naming of a ne houses in extension of the Royal National Hospit sumption at Ventnor "In memory of H.R.H. Col Henry of Battenberg, K.G., Governor of the Isle

WE regret to learn that Professor Vulliet, Pre of the International Congress of Gynæcology an to be held at Geneva in September next, died last

WE are glad to know that Mr. Mackellar ha from his recent severe illness, and has resume as chief surgeon of the metropolitan police.

THE subscriptions received by the various f have been engaged in raising a testimonial to Grace now amount to the grand total of £9000.

THIS year the annual congress of the British Public Health will be held in Glasgow from J July 28th.

FOOTBALL CASUALTIES.—On the 14th Petersfield, in a match between the Petersfield teams, a player sustained a compound fracture ju knee.—On the 21st inst., during a match at Leices the Leicester and Nuneaton Clubs, a player fract and was taken to the Infirmary.—On the same day between the Leeds Parish Church and Mytholm played on the Mytholmroyd ground one of the ho fractured his clavicle. In the progress of a ma gannon, county Tyrone, between the Derry and teams a player injured his neck, but notwithstand assistance paralysis supervened and no hope of is entertained.

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REPORT OF

THE LANCET

Special Sanitary Commission

ON

PRIVATE ACTION IN RESPECT OF COMMON LODGING HOUSES.

No. II.[1]

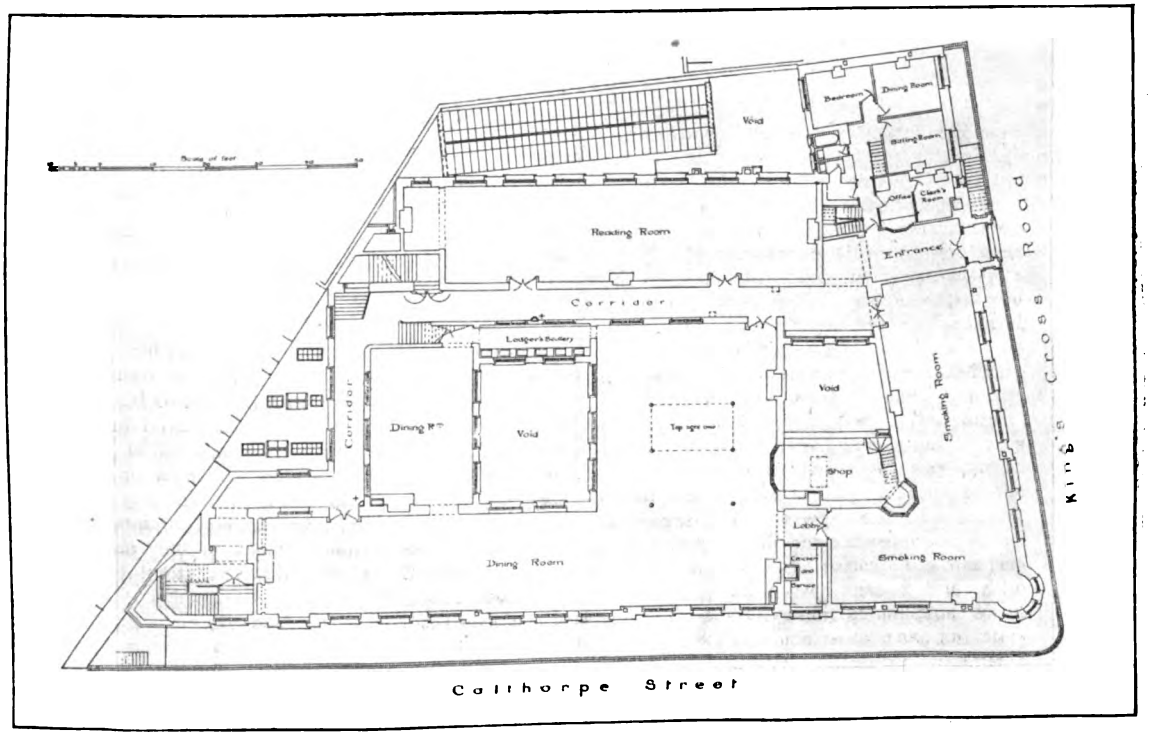
ROWTON HOUSE, KING'S-CROSS-ROAD.

To Lord Rowton belongs the honour of being the first to supply a real need in the lives of single men of the poorer working classes in London — a cheap and comfortable home. We say home advisedly, for if we eliminate the factor of mixed family life—not by any means an unimportant one—Rowton Houses, of which there are now two, really provide all that is implied by that word so dear to the heart of every true Englishman—"Home." The charge at these houses, 6*d*. per night, is a trifle higher than that charged at the cheapest of common lodging-houses, but the standard of comfort is so excellent that, all things considered, Rowton Houses may be said to be the cheapest and best. For the sum mentioned a comfortable bed, a private locker, lavatory accommodation, and the use of dining-, smoking-, and reading-rooms, as well as utensils for cooking and preparing food, can be obtained, and the conveniences are such as cannot generally be obtained in private houses of the poorer class. The first Rowton House, of which we have previously given a description, was a preliminary experiment undertaken by Lord Rowton and carried out under the able direction of Mr. R. E. Farrant, director of the Artisans', Labourers', and General Dwellings Company. This experiment proved so successful that it was decided to build another house, and the present building, which was commenced in August, 1894, was opened to lodgers on Saturday, Feb. 1st, 1896.

Rowton House, King's-cross-road, has been erected upon a site at the eastern end of Calthorpe-street at its junction with King's-cross-road from plans prepared by the architect, Mr. Harry B. Measures. This position is the centre of a largely populated working-class district, and is but a short distance from the main thoroughfares of Pentonville-road, Euston-road, City-road, Hampstead-road, Tottenham-court-road, Oxford-street, and Holborn. The termini and goods-yards of the Great Northern, Midland, and London and North-Western Railways, as well as the Corporation Markets in Farringdon-road, are also within easy walking distance.

The site has a frontage of 200 ft. to Calthorpe-street and 125 ft. to King's-cross-road, with a superficial area of 17,180 ft., and is surrounded on these frontages by an area, from the building to the forecourt line, 8 ft. wide in Calthorpe-street and 4 ft. wide in King's-cross-road, for the access of light to the basement of the building, the floor of which is at a depth, below the paving, varying from 16 ft. at the western end of site in Calthorpe-street, to 8 ft. at the northern end in King's-cross-road. Externally the elevations are in pressed Leicester facing bricks, relieved with pink Fletton bricks, with red and pink terra-cotta for the various architectural features. The roof showing on the front elevations is of green slates, nailed direct upon coke breeze fireproof slabs, carried upon steel construction, the roofing, which does not show on these elevations, being flat, and of coke breeze and steel construction, covered with three-quarters of an inch of asphalt. The interior walling, except where glazed bricks are used, and the exterior walls to the courtyards above the ground floor ceiling level have been executed in Fletton bricks, the walls of the courtyards from basement level up to

FIG. 1.



Plan of Ground Floor.

[1] No. I appeared in THE LANCET, April 29th, 1893.

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first-floor ceiling being executed in ivory-white glazed brickwork. All the brickwork of the building has been built in Portland cement mortar.

ADMINISTRATION.

Three years' experience in managing the Vauxhall House has naturally tended to facilitate and improve the administrative internal working of the institution, and the present building has been so constructed that this work may be carried out with a still greater degree of perfection. As will be seen by reference to the ground-floor plan (Fig. 1) there is no communication between the lodgers' rooms and the rooms of the working staff except by passing the clerks' office at the entrance on the ground floor. It will be readily understood that this is of great importance considering the mixed class of men who have to be dealt with. Access to the cubicles for the bedmakers is gained by a staircase in this portion of the building and the cubicles are closed to lodgers after 9 A.M. by iron gates on the ground floor. The administrative section comprises the superintendent's apartments and accommodation during the day for thirteen bedmakers. The catering section, part of which is situated in the basement, includes sleeping accommodation for females employed in the kitchen, &c., and is also isolated from the lodgers' rooms. The superintendent is provided with a self-contained two-storey residence comprising two sitting-rooms, two bedrooms, bath-room, w.c., kitchen, and cellarage. The clerk in charge of the turnstiles is provided with a bedroom opening out of the office with separate w.c. and lavatory for his own use. There is also a sitting-room and three bedrooms for those employed in the catering department.

LODGERS' ACCOMMODATION.

On passing through the entrance in the King's-cross-road (see Plan, Fig. 1) we leave the superintendent's apartments and offices on the right and enter an L-shaped corridor which separates the dining-rooms from the reading-room. At the junction of this corridor with its shorter length is a flight of steps. These lead to the roof of the ground floor, which in part been laid out as a lounge, forming a pleasant *al fresco* retreat in the summer for the lodgers. Over the stairs is a skylight, which can be opened for ventilation. This corridor, the extent of which will be seen on the plan, is fitted with oak seats and is used by the lodgers as a promenade. Drinking-water is laid on in two places, as shown in the plan by a cross.

Dining-rooms.—The two dining-rooms cover an area of 4000 square feet, with seating accommodation for 400 persons. This accommodation can be increased if necessary. The walls are built as high as the dado in cream and chocolate coloured glazed brickwork, with terra-cotta tinted plasteri above. The tables and seats are in teak, with cast-iron stanchions, which have been adopted by Lord Rowton and Mr. Farmer after much thought and experiment with regard to the comfort of the lodgers.

Smoking-room.—The floor space of the smoking-room (Fig. 2) covers an area of 1600 square feet, and

FIG. 2.

Smoking Room.

tables and seats for 128 lodgers, and two large fireplaces with open fires and glazed faience mantles and overmantles.

Reading-room.—The reading-room (Fig. 3) is placed on the side of the building away from the noise of the traffic, and has a superficial area of 1540 ft. The accommodation at tables is for 104 men. There are two fireplaces. Bookcases filled with English classical and lighter literature are at the disposal of the lodgers, and magazines and newspapers are freely provided.

Careful thought is here shown by the provision of a number of easy and other wooden chairs, some of which, for the benefit of the rheumatic and feeble, are placed near the fire in a recess at one end of the room. This Lodger has christened his "Cosy Corner," which, indeed, the walls of these two rooms are finished in a fashion similar to that of those in the dining-room. Pictures and prints adorn the walls, which have been otherwise adorned with trophies of Lord Rowton's trophies of the chase—namely,

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stag's heads. One is placed in the reading-room and two are in the smoking-room, a magnificent "Royal" occupying a prominent place.

Preparation of food. — The preparation and cooking of food by the lodgers necessarily entails a great deal of extra work for the staff, but the directors have provided every possible convenience for those who prefer to cook their own food. The dining-rooms are provided with four large cooking ranges with ovens, hot plates, and grills, and attached to two of these ranges are boilers to enable the lodgers to obtain hot water. Cooking utensils, teapots, crockery, knives, forks, &c., are also freely provided. In the Vauxhall House it was found that the lodgers in preparing their food littered the place with refuse. In the new house this has been obviated by the addition to the dining-rooms of a lodgers' scullery (Fig. 7). It is fitted with six white enamelled fire-clay sinks with hot and cold water and teak draining-boards. Sanitary pails for refuse are provided to each sink. The room is conveniently situated between the two dining-rooms, and the lodger here finds all the necessary accommodation for preparing his food. But although no pains have been spared to administer to the needs of the tenants in this way, Lord Rowton is not an advocate of the lodgers preparing and cooking their own food, nor, indeed, is it necessary, for excellent food of almost every description well cooked is provided at the smallest possible cost. Uncooked food and tinned provisions can also be obtained at the shop, which is so planned that the serving windows at each end open into the dining- and smoking-rooms respectively. A lift connects the shop with the scullery in the basement. The scullery is 13 feet 6 inches by 18 feet 6 inches, and the kitchen is 19 feet by 27 feet. Both are built in ivory-glazed brickwork from floor to ceiling. The floor of the kitchen is in solid wood blocks. A larder and service lobby adjoin. Everything is arranged with a view to the utmost cleanliness, and at the time of our visits cleanliness and good order were much in evidence. The light is good and the absence of odour on all our visits speaks well for the ventilation.

Light and ventilation.—Before passing on to the sleeping accommodation it will be well to say a word regarding the lighting and ventilating of the day rooms. The ventilation would seem to be efficient. The semicircular top of each window is made to drop forward, as is shown in the illustration of the lodgers' scullery. The tops of the entrance doors are ventilated in the same way; ventilators are placed in the walls and the windows opening into the space marked "void" (see Ground Floor Plan) enables a good cross ventilation to be obtained. However excellent the means of obtaining pure air may be they must be abortive if not under intelligent control, and this it is impossible to obtain among the class who frequent lodging-houses. In one of the dining-rooms there is a top light under the control of the attendants, but this does not apply to the other rooms, and there is, therefore, a danger of the air becoming vitiated. One thing worthy of remark is, that on the occasion of one of our visits while the windows in the dining-rooms and smoking-room were generally closed, those in the reading-room were mostly open, and the variation of temperature was very marked. It is very noticeable that the reading-room is the rendezvous of the more select members of the little community, and it would thus seem that they possess a more intelligent knowledge of the value of ventilation than the rougher section. Having regard to the pollution of the air which must result from the ordinary method of gaslighting, it is somewhat surprising that this form of illumination should have been used. It is true that the parish in which the building is situated has not yet adopted electricity for illuminating purposes,[2] but as it is in use by the Government buildings opposite no difficulty should have been experienced in supplying Rowton House with the electric light.

FIG. 3.

Reading Room.

[2] This reproach, we understand, is about to be removed.

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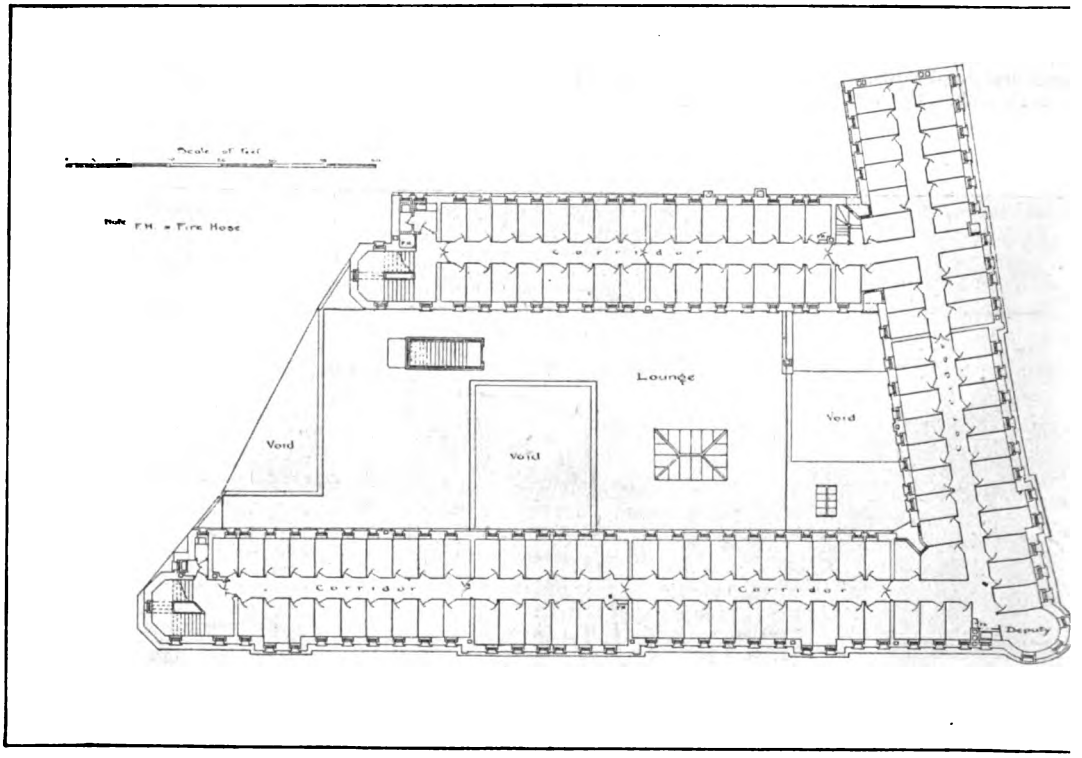
THE CUBICLES.

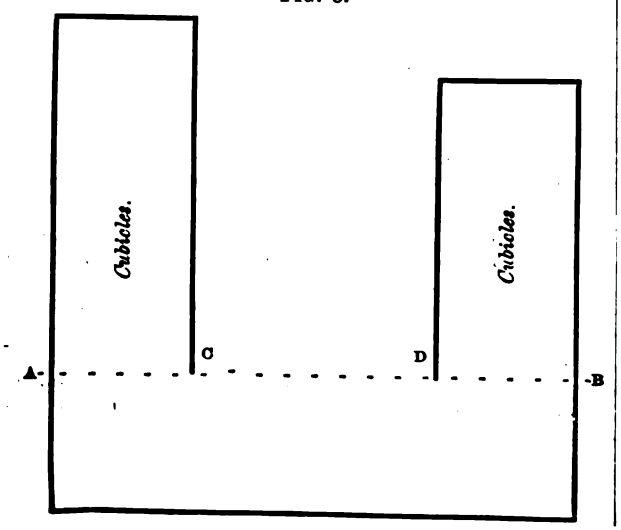
The plan showing the first floor of cubicles (Fig. 4) will readily convey to the reader an idea of the way in which the lodger's sleeping accommodation has been arranged. Along three sides of the building runs a continuous corridor and on either side of this gangway, which is 4 ft. wide, are placed the cubicles. It will be seen from the plan that at certain points the line of cubicles is broken and a door placed across the corridor. This is an important detail, inasmuch as the arrangement enables a particular block of cubicles to be isolated from the rest in the event of a case of infectious disease occurring. Should this happen the patient is at once removed and the section closed until it has been thoroughly disinfected. The division of the cubicles into sections would also serve a useful purpose in the case of fire, as the closing of the doors would stop a through draught and tend to check the spread of the flames. The construction of ea cubicle (Fig. 6), is worthy of notice. Each loc vided with what is really a small bedroom. Thes or cubicles as they are called, vary in size, but th is 5 feet by 7 feet 6 inches, giving an square feet 6 square inches. The separating are 7 feet 6 inches in height and the partiti the cubicle from the corridor is 6 feet 6 inches leaving a space free up to the ceiling of 1 fo at the sides of the cubicles and of 2 feet 6 inch door. There are in all 677 sleeping apartments

FIG. 4.



Plan of Cubicle Floor.

FIG. 5.



six floors. With the exception of the top floor cubicles on each storey, with one less on th Excluding the top floor, the total floor space o is 6221 square feet, giving a cubic space of 55,98 or an average of about 444 cubic feet per lod case of the top floor of cubicles the air space larger. In our notice of the first Rowton Hou attention to the insufficiency of light and air in occupying the corners of the building. This co not now be made, as each cubicle has a sepa affording adequate means of ventilation, alwa that the means are taken advantage of.

One of the easiest and most useful wa tilating a room by means of the windows the bottom sash frame three or four inches intervening space between the window frame a rail of the bottom sash with a piece of wood. the top rail of the lower sash above the botto upper sash and allows air to enter the room direction from the middle of the window bet sashes. In the present instance the piece fixed to the bottom sash rail and a cavity window frame for its reception. In the m the lodgers have vacated their cubicles the the cubicles on either side of the corridor ca and the apartments thoroughly aired by the cro thus obtained.

The bedsteads, which are of iron, are fitte woven mattresses, and are 2 feet 6 inches wi 3 inches long, so that even a very tall with comfort. Sheets, quilts, and blankets with each bed, which is "made" by placi between the lower sheet and the mattress.

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know the warmth and comfort to be derived by this plan," said Lord Rowton to our representative, and the remark is worthy of record, inasmuch as it shows, as does also the extra length of the beds, the care and thought which Lord Rowton has for his poor tenants. In each cubicle there is a chair, shelf, and clothes-rail.

The plan of warming the corridors in the Vauxhall House by hot-water pipes running along the tops of the cubicles has been discarded, as it was found that they seldom or never required to be used, but each tenant can practically have as many blankets as he likes to cover him, and as he is quite free from draughts this method of obtaining warmth offers some advantages. The arrangements, under the control of the attendants (two of whom sleep on each floor), for ventilation are good. Two w.c.'s and a sink with a tap above for cold water are placed on the landings outside the entrance to the cubicle corridors for night use.

The cubicles are approached by two fireproof staircases, built in ivory-glazed brickwork, situated at the extreme western boundaries of the building and opening to the ground-floor corridor. As the cubicle corridors run from staircase to staircase, in the event of fire and of one of the staircases being blocked this arrangement forms a practically safe means of retreat. These staircases, which show a marked improvement over those of the Vauxhall House, are well lighted and ventilated by circular windows, and should form a valuable air shaft. The diagram (Fig. 5), which is drawn to scale, shows a cross section of the building. The dotted line A C D B represents a section of the ground floor and C D a section of the lounge previously referred to. It will thus be seen that the air can circulate round the cubicle blocks and that ample light can penetrate each cubicle.

FIG. 6.

Two Cubicles.

AUXILIARY ACCOMMODATION.

So far we have described the arrangements for shelter, warmth, and sleeping, but a common lodging house has to provide for its inmates certain auxiliary accommodation; and in the present building this has been done with the most intelligent regard for the welfare and comfort of the lodgers.

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Many may unfortunately possess only one set of under garments and it is necessary that they should be able to wash their limited linen in a warm apartment. This is provided in the lodgers' washhouse, situated in the basement, an illustration of which we give (Fig. 8). There are twelve washing troughs fitted with hot and cold water and there is also a wringing machine. In the centre of the apartment will be noticed a large heating stove. This is surrounded by a galvanised wire framework for the speedy drying of clothes,

The lavatories are a model of what public lavatori be—well lighted, well ventilated, and well drai construction they are similar to those illustra described in our previous Commission. The spa tioned to them in this instance is 36 feet by 56 fe room is built in glazed brickwork and there are eig enamelled fireclay basins provided with a hot and c supply. The large jack towels are changed each waste water is discharged in a channel in the flo

FIG. 7.

Lodgers' Scullery.

and as the stove is enclosed there is practically no danger of the articles that are drying catching fire through carelessness on the part of the lodgers. In the basement will also be found a barber's shop, a repairing tailor, and a shoemaker. For the convenience of those who wish to change their clothes during the time that the cubicles are closed four extra rooms are provided. A reference to the basement plan (Fig. 9) will show the position of these rooms as well as that of the lavatories and urinals.

flooring has a fall to this channel. The lav warmed by the radiant heat from the hot wate section of the lavatory 7 feet wide by 36 fe divided off to form a feet-washing room, fitted troughs with hot and cold water. These are to those described and illustrated in our last C For the sum of ½d. between the hours of 6 A.M. a hot or cold bath with towel and soap can be h arrangements are in every respect commendable.

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and urinals have wisely been placed outside the building and cut off from it by means of a cross ventilated lobby. Throughout the work has been constructed in white glazed brickwork. Here, in a building with glazed roof, ventilated louvre windows, are placed thirty-four w.c.'s, each fitted with an "Acme" water waste preventer and a Doulton's pan and trap bedded in solid concrete up to the underside of the seat, which is in teak. There are fourteen urinals with semicircular white glazed backs, with double bullnose white glazed screen piers in front and above, and automatic flushing apparatus. Inlets for fresh air are formed along the entire length of the room at skirting level, and exhaust window openings extend with the necessary piers along the opposite wall for its latrine length. A surprise visit paid on a Saturday night found the latrine accommodation in the best of conditions, with absence of smell and perfect cleanliness.

An inspection of the drainage plan (Fig. 10) will show that the planning of the work bears evidence of care and thought. Inspection of direction man-holes have been placed at every change of underground pipes and at all junctions. Wherever it has been necessary to carry pipes under the building interior coated-iron piping has been used. An important point is the dividing of the drainage into sections and the ample provision of fresh air inlets and foul air exhausts to each section.

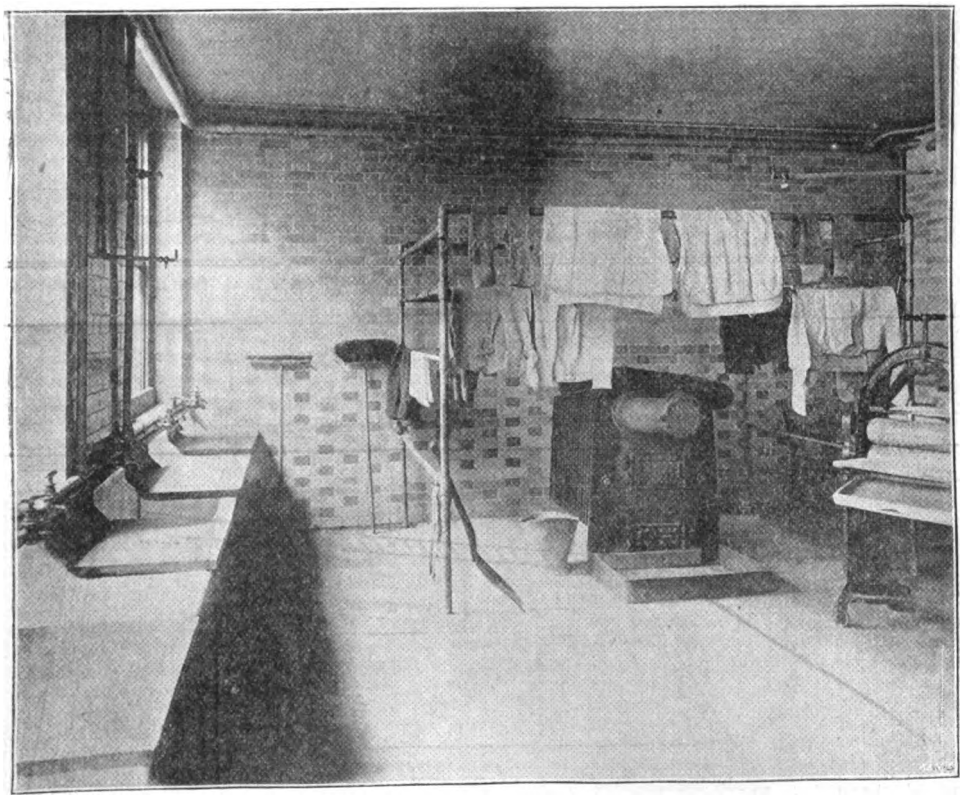
Supplementary Details of Management.

With regard to the provision in case of an outbreak of fire mains and hose-pipes are provided at five points on each floor. The floors throughout the building are fireproof, being formed of coke-breeze and steel, and the staircases are in cement concrete. To avoid a cavity between the surface of the concrete and the flooring on the cubicle floors the boards are nailed directly upon the concrete, and the solid oak-block floors in other parts of the building are embedded on the concrete. The system of gas-lighting which has been adopted gives the official on each floor of the cubicles the control of the gas upon that floor; the various rooms in the basement and on the ground floors are controlled separately one from another, and the superintendent has complete control from the office on the ground floor over all the various sections.

Next to the w.c.'s in the basement and outside the main building is a fumigating room and a mattress-drying room. A ventilated room has also been built for the reception of portable dustbins, with an approach which enables the dustmen to remove the refuse without entering the building. The dustbins are emptied three times a week.

In the basement is a room built in ivory-glazed brickwork for the reception of soiled linen, &c., and for the sorting and delivery of clean linen in its place. A lift built in glazed brickwork runs from this room to the top of the building, with iron-cased doors opening on each floor of the cubicles. Close to this room is another fitted up with open racks for the storage of sheets, blankets, coverlets, &c. Two large cylinders containing 500 gallons of boiling water supplying

FIG. 8.



Lodgers' Wash-house.

lavatories are placed in this room in order that the bed linen, &c., may be thoroughly aired.

One point in the management we feel constrained to adversely criticise—that is, the arrangements for transporting the bed linen to and from the cubicles. The same lift that brings the soiled linen to the basement carries the clean linen up to the cubicles. In this there is obviously the risk of infection, and this risk is increased by the fact that the sorting of clean linen and the reception of soiled linen are carried out in the room in which the lift terminates. We have pointed this out to the management, and we understand that in a new lodging house which is in course of construction at Newington Butts the soiled—and clean—linen rooms are to be separated. This will, however, but little minimise the risk, as but one lift will be used. The plea for the use of one lift only is economy of space, but surely some plan might be adopted to prevent what might possibly prove a potent source of infection.

The aim of Lord Rowton has been to meet for the class of

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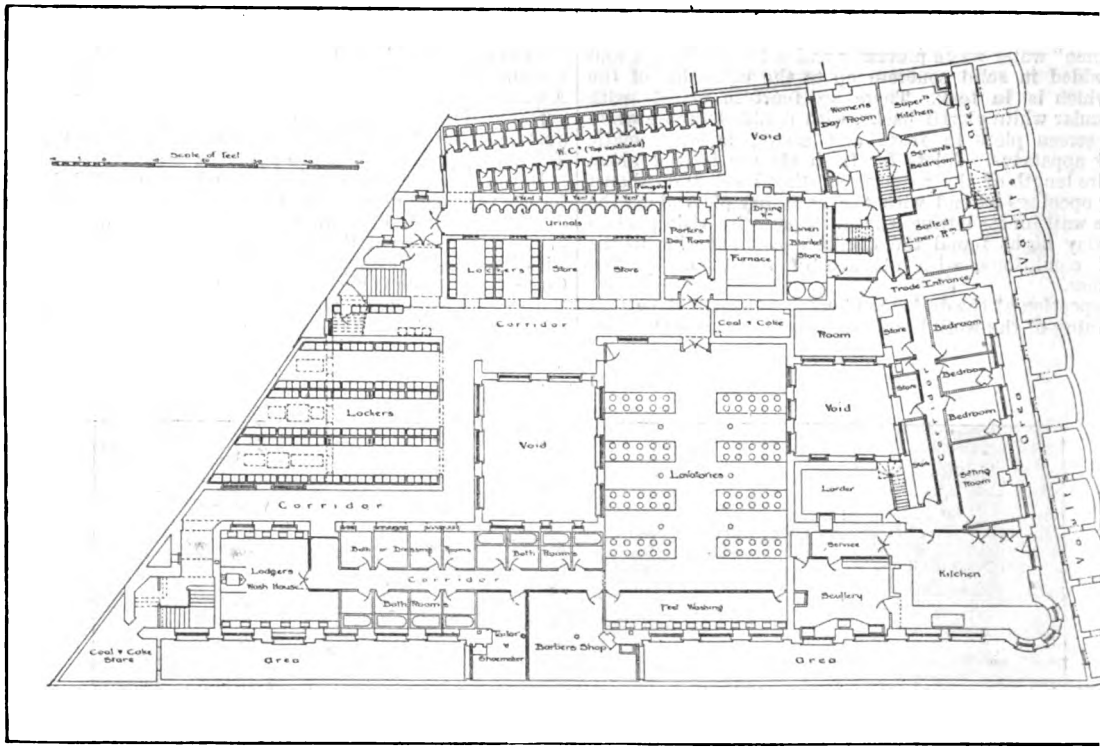
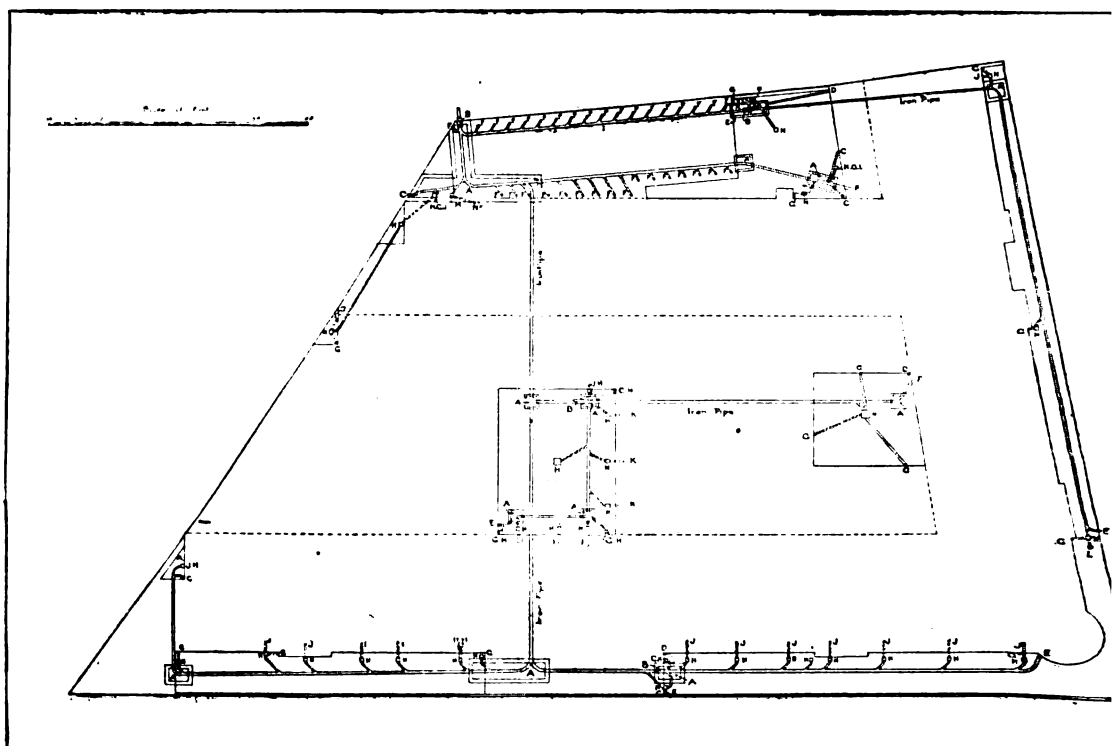
FIG. 9.



Basement Plan.

FIG. 10.



Plan of Drainage. A, Inspection chamber. B, Syphon tap. C, Soil pipe. D, Exhaust ventilator. E, Fresh air inlet. F, Basen W.C's. G, Rain-water pipe. H, Surface gully. I, Bath waste. J, Sink waste. K, End of channel for lavatory waste. L, Clear socket. M and N, Gully and Channel from urinals.

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lodgers for whom he caters the real and legitimate requirements of life and to increase their sense of decency. With this object Rowton Houses have been built, and we think the venture has been successful from all points of view whether sanitary, moral, or financial. With the sanitary aspect we have already dealt. The moral influence of the work does not come strictly within our province, but it must be conceded that the inducements to cleanliness which are found in these lodging-houses cannot but be potent for good. From a financial point of view the venture must be pronounced a decided success. Rowton House, Vauxhall, is practically full all the year round, and the present building three weeks after the opening was full to overflowing, numbers being turned away each night. Originally built as a private enterprise by Lord Rowton the buildings are now owned by a company paying a dividend of 4 per cent.

In conclusion, while congratulating Lord Rowton on his success in the case of male lodgers, we would earnestly ask him whether some similar provision could not be made for the corresponding class of females. We appreciate the difficulties, but the need is urgent, and we hope that the good work may be extended in this direction.

THE NEW PHOTOGRAPHY.

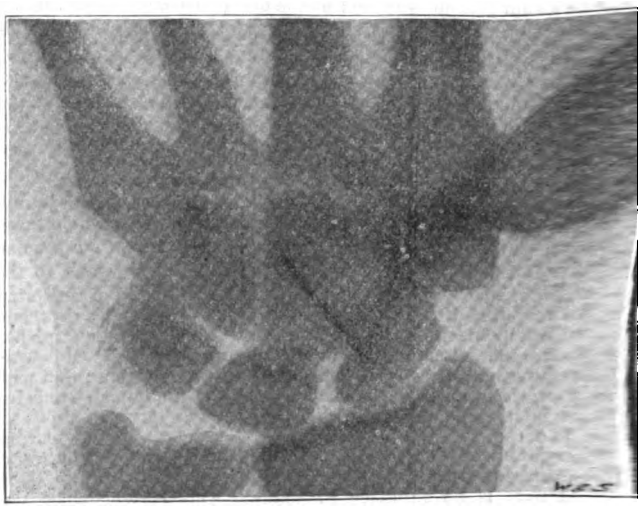
WE present our readers to-day with a reproduction from the photograph of the dead monkey mentioned last week. Apart from the fact of its being possible to photograph the spinal column through the thickness of the body the plate shows very well the difference between a biliary and a uric acid calculus in their permeability to Roentgen's rays. The biliary calculus was inserted into the left kidney, and it will be observed that it is hardly to be differentiated from the kidney substance. The uric acid calculus, on the other hand, which was placed in the right kidney, comes out perfectly clearly, being much less permeable to the rays than the biliary calculus. Of course, our experiment is not nearly enough to ground a

FIG. 1.

solid proposition upon, but it would seem to show that it will be more difficult to locate a gall-stone or diagnose between it and malignant disease of the gall-bladder than to localise a calculus in the kidney. These two photographs were taken with a Newton's bulb. The two remaining figures are of cases of lost needles.

Fig. 1 is a case reported by Mr. R. G. Hogarth, senior resident medical officer, General Hospital, Nottingham. A young woman presented herself at the hospital complaining of pain along the inner side of the metacarpal bone of the ring finger. There was some slight fulness on the dorsal surface. She stated that ten weeks previously she had run a needle into her hand while washing the floor; it entered on the palm opposite the base of the fifth metacarpal bone. Chloroform was given and an incision made over the painful part and nothing was found. The search was not prolonged as the patient had been in the hospital several times before and he had some doubt whether a needle was there or not, and was anxious to try the rays. Mr. Simpson, F.R.M.S., senior physical demonstrator, University College, Nottingham, kindly offered to take a photograph of the hand, which was done, and the needle was discovered lying parallel to and along the inner side of the metacarpal bone of the ring-finger. Its position made it very difficult to feel

FIG. 2.



and also, he believes, to demonstrate in the photograph. Next day it was removed. The conditions under which the photograph was taken were as follows. A five-inch spark induction coil was driven to give a two-inch spark, and one of Messrs. Newton's "focus tubes" was used with Ilford extra rapid plate under a thin plate of vulcanite fibre. The exposure was two-and-a-half minutes at six inches distance. The position of the needle is so faintly shown in the negative that the process block would not reproduce it, therefore it has been retouched, which makes it more distinct.

Fig. 2 was supplied to us by Dr. Chas. B. B. Savory (Surgeon to the Haverfordwest and County Infirmary), who says: "The print is a photograph of a patient's right hand, taken by the new method of photography, showing a needle which for the past eighteen months has defied all efforts to localise. The photograph is the work of Mr. Ernest Baugh of this town, whom I feel I must take this opportunity of thanking for his great care in producing the same. I think the unusually clear definition is a sufficient justification for my sending it to you. The needle was removed by drawing a line between two points, the line intersecting the needle at right angles. About half an inch below the surface of the skin of the wrist the blade of the scalpel impinged upon the needle, which was removed without difficulty. It proved to be about three-quarters of the length of the needle, the eye having entered the wrist first. If I may be allowed to make the suggestion, it is a point of practical importance in this new method that the perfection of the definition depends more upon the different *densities* of the parts rather than upon the *thinness* or *thickness* of the parts which the rays traverse."

Dr. Mackenzie Davidson of Aberdeen reports to us that he has obtained a photograph of the cranial cavity showing the position of a bullet clearly, also a photograph of the hip-joint showing a fracture of the neck of the femur.

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DIRECT VISION BY MEANS OF ROENTGEN'S RAYS.

(Description of a Binocular Cryptoscope.)

BY JOHN MACINTYRE, M.B., C.M. GLASG., F.R.S. EDIN.

CONSIDERABLE attention has recently been paid to attempts made to see through objects hitherto considered opaque. The remarks made by Mr. Swinton and the annotation upon the subject in THE LANCET of Feb. 29th have raised some important questions, and as I have been working on similar lines since the introduction of this new art the following notes may be of some little interest.

In the article referred to Mr. Swinton described an instrument consisting of a small pasteboard tube with a black paper covering at one end protecting a screen of barium platino-cyanide; at the other end was an aperture by means of which one could look at the screen when illuminated by means of a Crookes's tube. I had the pleasure of inspecting this by the kindness of Mr. Swinton himself, and was able to see the shadows of certain bodies in front of the screen. The apparatus which I have to describe was thought out some time ago and is founded upon Roentgen's own investigations. This point is worthy of notice because a good deal of misconception still exists on the part of the public about what can be seen and the means by which these shadows may be obtained. In a recent copy of *Nature* one writer says:—"The statements that have appeared to the effect that Signor Salvioni has devised a method of rendering the retina of the human eye sensitive to Roentgen's rays, and that by his method objects are directly seen through planks of wood, sheets of aluminium, &c., are absurd." Of course, one cannot see the objects, but shadows of them; and with regard to the statement of the retina of the human eye being sensitive to the rays, all one can say is that Professor Roentgen discovered the fluorescence of the barium platino-cyanide himself, and in that way, of course, the human eye can see shadows of objects by means of ordinary light. There is no injustice in making this statement because Professor Salvioni in his own paper acknowledges that he has brought out nothing new which could not have been deduced from the original experiments of Roentgen. The novelty, he says, if, indeed, it is so, consists merely in making use of known facts to design the arrangement. Any remarks therefore, which I have to make in this paper are based upon the same lines; in other words, it has been merely a matter of working out Roentgen's original ideas with a view to obtaining the best results.

For my first instrument I took the eye-piece of a Ross microscope, and at the end next the eye screwed in a lens one inch focus suitable for seeing the barium platino-cyanide screen at the other end of the brass tube, which was covered with pasteboard or aluminium. Looking at a Crookes's tube in a high state of fluorescence I could perceive a round illuminated field, and certain bodies could be seen when placed between the screen and the tube, but the instrument was of no great practical value. Afterwards I made a series of experiments, and the first improvement was got by making the tube sufficiently long to give the necessary distance between the eye and the object for clear definition. I have used lenses of various focal distances, and in some instances they have proved advantageous; my best results, however, have been got without lenses at all. The apparatus which I now use consists essentially of two oblong frames with a bellows-camera uniting the two and held together by adjustable brass work. By means of this arrangement antero-posterior distances can be got suitable for direct vision or different lenses. In front there are two brass tubes, by means of which one can look with both eyes towards the screen, and at the back there is a barium platino-cyanide screen, which will be described. The screen is covered in with a sheet of aluminium one-eighth of an inch thick, which can be removed at will and different substances placed in the same position to test the fluorescence and sharpness of image; the eye-tubes in front can be adjusted for width of eyes. The object to be examined is simply placed between the Crookes's tube and the platinum screen. To obtain any measure of success two things are necessary: first, a good screen w
cent substance on it; and, secondly, a C
which the fluorescence is well marked. Wi
former, my best results have been got with
cyanide, not spread upon paper, but upon the
I tried different substances and many ways
good screen, but the most efficient in my exp
produced as follows. A quantity of barium
was rubbed in a mortar until it formed a f
then mixed with a solution of mucilage until
yellow fluid capable of being poured upon th
one would pour the collodion after the old
graphic process. This was allowed to dry s
placed in position gave fairly satisfactory res
doubt with further experience it will be pc
something very much better.

Experiment 1.—Some coins were placed
on looking the shadows of the clasp and coi
tinctly seen.

Experiment 2.—I placed a book of about
between the instrument and the purse and
came more distinct.

Experiment 3.—A book with two thick ca
enclosing 500 leaves was taken and a pair o
in the centre; the image of the forceps was
distinct.

Experiment 4.—A pair of scissors was p
half plate mahogany slide and two pieces of
placed in front and behind it. The antero-pos
ment was therefore two and a half inches of
the mahogany slide as well. The shadow of
could be distinctly seen, and an aluminium p
of an inch thick made little or no difference.

Experiment 5.—A pair of scissors was plac
of the Medical Directory for 1896—a work w
over 1900 pages—and even that was penetrat
in question. (It will be noted in all these e
objects looked at through the various structu
and therefore likely to give good images.)

Experiment 6.—In the sixth experiment I p
in front of the screen and the phalanges a
bones could be distinctly seen.

Experiment 7.—I placed a thick aluminiur
the hand between it and the Crookes's tube, an
definition of the bones was obtained.

Experiment 8.—On looking through the boc
gentlemen watching the experiment the shado
tarsal bones and phalanges could be seen.

Experiment 9.—On looking through the ha
man who had met with an accident some ye
pellet could be seen near the second metacar
joint.

The success of such experiments depen
tubes and properly prepared screens; bu
it necessary in recording or confirming any
experiments that nothing should be stated
mislead others, I should like to point out t
still stand in the way of a really practica
Many factors must be taken into considerati
ments like the above, but two at least are o
ance:—firstly, penetration; and, secondly, de
regard to the former I feel quite confident
rays will soon be produced in sufficient degree t
the thickest tissues of the body. As far as s
different parts are concerned I have obtaine
through much thicker tissues than above des
regard to definition I have found the followin
of advantage. First of all, black paper or th
board placed behind the barium platino-cyanid
as good as a piece of aluminium. Secondly,
results in a darkened room. Thirdly, the cry
should be sufficiently thick in the walls to
possibility of ordinary light getting through.
obtain the best results one must always n
distance between the object to be viewed an
platino-cyanide screen, because good definitio
when the objects are not very dense, by observi
relationship between the fluorescent surface, the
and the Crookes's tube. Roughly speaking t
object to the screen the better, but in thicker s
farther the object is removed from the sensitis
farther back must the Crookes's tube be remove

Since the above was written ten days ago I h
a number of screens of different materials, b

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back upon the barium platino-cyanide. Like others I have tried the potassium platino-cyanide salt, and with dense objects particularly it certainly has an advantage over the barium salt. I can now speak with greater confidence than above stated, because with my new instrument I have seen distinctly shadows of the arm, forearm, bones of the wrist, and feet. I have also been able to see a good part of the bones of the lower extremity. Moreover, I have placed some bullets inside a skull and had no difficulty in obtaining distinct shadows of them on looking through the vault of the cranium. The bones of the head are easily penetrated, and I have arranged a special apparatus for looking into the bones of the face, a proceeding which must be of great importance in examination of pathological conditions of the antrum of Highmore. I have also found the cryptoscope of great advantage in determining the exposure and best arrangement of the Crookes's tube for definition, and have now photographed practically the whole of the human skeleton, including the greater part of the spine and ribs through the front of the body, and all the bones and joints of the extremities. The inner wall of the cranium has also been photographed in a dead subject.

Since the above was in type we have received the following from Dr. Macintyre :—

As will be seen from the various newspapers calcium tungstate has been recommended by Mr. Edison. I have since tried a number of screens for the cryptoscope, including calcium tungstate both in its insoluble precipitate form and the crystals prepared by Messrs. Baird and Tatlock. In this new salt we have a good fluorescent substance, but before giving a final opinion upon it I should like to have Mr. Edison's methods of preparing the crystals. There is nothing, however, in his telegram as far as I can gather which I have not demonstrated with other salts. I have seen all that he has referred to by means of a good barium platino-cyanide screen, but I am getting more familiar with the best methods of preparing such and now think the double salt of potassium is better. It seems to me, however, that, just as in ordinary photography it is less important to have a very sensitive plate than a good supply of sunlight, we shall find that in this work a good Crookes's tube is of more importance than an excellent fluorescent screen. For class demonstration I have found a muslin screen saturated with one of the salts of use. By this means shadows of opaque bodies can be demonstrated to an audience.

I have now completed my series of the skeleton in the adult human subject and have taken a photograph of the vertebral column, which shows the cervical and dorsal vertebræ, upper six ribs, their attachments, clavicle, and a good portion of the scapula. This was done straight through the body with one of Newton's tubes and eighteen minutes' exposure. This exposure was the longest of the set, the hip and shoulder next, and the knee the third longest, as might have been expected. Unfortunately, I was using a coil which had to be returned this week and consequently my work has been stopped for a day or two, but I find the interior of the skull can easily be photographed. By carefully adjusting the Crookes's tube the rays can be sent straight through the side of the vault next the tube without its appearing on the negative, but the inner wall of the opposite side of the vault appears showing sutures, grooves for meningeal arteries, and structure of bone.

Although I have been engaged in the general application of Roentgen rays my main work will consist in its application to laryngeal surgery. This includes the examination of the upper part of the chest and the bones of the neck and face. As far as photography is concerned I have been able to photograph the upper part of the chest and the spine above and below the inferior maxilla—a fact which will be of great service, I have no doubt, in the detection of erosions in aneurysm below or cervical caries higher up. Foreign bodies placed in the region of the neck or jaw are easily seen, and I have taken excellent photographs of destruction of bone due to recurrent malignant disease in the upper jaw. My work in studying the effects on cartilage and other tissues in the region of the larynx I hope to place before you shortly. The tissues in the neck are easily penetrated by the "x" rays on examination by the cryptoscope, but definition is what is wanted. The bones of the face are also easily seen through, but I have designed a lamp for illuminating the antral cavities through the mouth. Details of these I hope to place before your readers very soon.

Glasgow.

THOMAS WAKLEY,

THE FOUNDER OF "THE LANCET."

A BIOGRAPHY.[1]

CHAPTER XIII.

Tyrrell v. Wakley. — The Case for the Defendant. — The Judge's Charge. — Fifty Pounds Damages awarded. — Wakley's Contumacious Behaviour. — The Effect of the Trial.

BROUGHAM'S defence of Wakley in this case was one of his finest forensic efforts. He categorically traversed every statement and implied argument that had fallen from Serjeant Vaughan's lips, and while using every sort of legal weapon in his client's behalf, comported himself with an easy gaiety that betokened the good conscience that is bred of a good case. He absolutely denied that Wakley was animated by any malicious feeling towards Mr. Tyrrell. Censure had been administered by a critic to a work submitted to the public's judgment—that was all. The author's character was not attacked. There was not in Wakley's article one word that constituted a perversion from liberal, free, and unfettered criticism into malignant slander. Next Mr. Brougham pointed out, not without sophistication, but with great ingenuity and eloquence, that Wakley had never been so stupid or ill-advised as to claim any copyright in Sir Astley Cooper's lectures so as to be able to preclude anyone other than himself from publishing them. Wakley only claimed property in his own report, for the transcript and printing of which he had paid. He was not calling Mr. Tyrrell a thief because Mr. Tyrrell had published ten of Sir Astley Cooper's lectures, but because he had used THE LANCET reports of the same without acknowledgment, which reports had appeared with the tacit if not with the express sanction of their eminent author. Upon Mr. Tyrrell's plea, which was really beside the point, that the new and authorised publication had taken place because of the numerous inaccuracies which had crept into THE LANCET reports, Brougham could afford to pour ridicule. For, firstly, the plagiarism that had taken place from THE LANCET for the production of Mr. Tyrrell's book was undeniable, and to transcribe passages from a report must appear a droll way of correcting that report; while, secondly, the statement that THE LANCET reports were incorrect was unsupported by any evidence and was manifestly an after-thought. Brougham's humour was a little unsparing, and while he was dealing with the accusation of plagiary his words were spoken to a running accompaniment of laughter.

"Here again is the incorrect account of THE LANCET!" he said, reading out one of the selected parallel passages. "'Certainly the formation of matter will be attended with a slight fever, but not of the hectic kind; the tongue will be clean, the pulse very little affected, and the person very slightly deranged; but after an opening is made into the part constitutional irritation sometimes comes on and life is then endangered.' A most inaccurate representation of that worthy, learned, and skilful man, Sir Astley Cooper, which he (Sir Astley Cooper) could not bear to read—which haunted him every time he heard the name of THE LANCET—he was punctured every time he heard it. 'So,' says he, 'I will send to Mr. Tyrrell; he is an *accurate* man; he will not publish such trash; I will send for good Mr. Tyrrell, my 'squire in medical knight-errantry, and he will publish what I really did say.' So he sends for Mr. Tyrrell, and he says, 'Mr. Tyrrell, there is sixpence for you, Mr. Tyrrell; go and lay it out in a way that is most calculated to correct the errors of THE LANCET.' And then with this sixpence he (Mr. Tyrrell) goes and purchases a

[1] Chapters I., II., III., IV., V., VI., VII., VIII., IX., X., XI. and XII. were published in THE LANCET, Jan. 4th, 11th, 18th, and 25th, Feb. 1st, 8th, 15th, 22nd, and 29th, March 7th, 14th, and 21st respectively.

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number of THE LANCET, and tries the remedy of giving a correct account of what Sir Astley Cooper said; and, in order to do that, he gives you the following correct account: 'Certainly the formation of matter will be attended with a slight fever, but not of the hectic kind; the tongue will be clean, the pulse very little affected, and the person very slightly deranged; but after an opening is made into the part constitutional irritation comes on, and life is then endangered.' As much alike as ever two peas were! Indeed, no two peas were so much alike."

From this it will be seen that the pervading element of Brougham's speech was its genial banter. In this way he went through several parallel passages, reading first THE LANCET reports, then imagining Sir Astley Cooper condemning THE LANCET for mis-statements and sending for Mr. Tyrrell and asking him, sixpence in hand, to make the necessary correction. This Mr. Tyrrell was supposed to have done, and the resulting corrected passage was read to the jury. It was always, for practical purposes, unaltered from the form in which THE LANCET had given it and which the Court had just heard.

With the more serious accusation of wilful suppression of the termination of Thomas Denman's or Timothy Desman's case Brougham also dealt in humorous style—a style which he considered very apt to the situation, for he asked how it was possible for THE LANCET to state the ridiculous circumstances to their readers without rallying Mr. Tyrrell on them.

"A man is sent to the hospital," he said, "with a compound fracture of the skull. ... A battle begins, and then comes the skilful and powerful hand of our great champion, Mr. Tyrrell; and he, by the skill of his movements, by his extraordinary perseverance and able tactics, soon brought the thing to a successful issue. He thought he had watched his enemy like a good and skilful commander, and fairly beaten him out of the field. So he thought and said on the 20th of September; but unfortunately death in the end out-generaled him, and obtained the victory two days after the hasty proclamation of the good doctor's triumph. The fact was that while the plaintiff was gazetting his own promotion, while he was indulging in the fond aspirations of his own conquest, while he was making bonfires and letting off gunpowder—in the midst of rejoicings in came death upon his patient, by a sort of lateral movement, opened his trenches, and, notwithstanding the formidable array of hospital weapons, bore away the palm of victory; horse, foot, and dragoons; and left the poor doctors in dismay and discomfiture."

Brougham concluded an eloquent and highly humorous speech by repeating that there was nothing in THE LANCET criticism of Mr. Tyrrell's book that transgressed the legitimate grounds of criticism. The author had come before the public for notice and had been noticed. His private character, his behaviour as a parent or husband, for instance, had not been attacked, but his reputation as an author had been dealt with—and that everyone who affixes his name to a book must expect.

Lord Chief Justice Best summed up in an impartial manner, but the most definite words in his somewhat colourless address directed the jury to find for the plaintiff, and no one reading the libel can be surprised at that. The Lord Chief Justice considered that the phraseology adopted in the libel did convey the very imputation upon Mr. Tyrrell's private character that the defendant disclaimed for them "otherwise he did not know what the language could mean," and it was this expression that gave Mr. Tyrrell his verdict. With regard to the case of Thomas Denman or Timothy Desman—and this was the topic upon which the strongest language was used in the libel complained of—the Lord Chief Justice did not seem to consider that Mr. Tyrrell had been treated very badly. He cavilled a little at the word "imposition," which was Wakley's term for the narration of the case to the public as a success when it was really a failure, and wished that he had had evidence before him that the *erratum* had not been seen by the author of the review. But he considered that strong observation upon the impropriety of narrating such a case to the world as a successful case were warranted and constituted fa criticism; and if that had been all that was to be discovere in the defendant's conduct he should have directed the ju to find a verdict in his favour. But he did not consider t article in question fair criticism as a whole and could n discuss one part of the alleged libel away from t context. He pointed out, however, that the case ne should have been published as an illustrative case at al unless as a warning—by a man who knew of its fa termination, and he held that an *erratum* did not a the fact that it was no longer an illustrative case. put it briefly, Lord Chief Justice Best thought that Tyrrell had been libelled not so much by the things that been said of him as by the way in which they had l said. He did not allude to the fact that certain of copies might have been distributed to the public withou slip of *errata* pasted in them until he was reminded o omission by Wakley's counsel; and he accepted as acc Serjeant Vaughan's uncorroborated and utterly untrue s ment that THE LANCET reports of Sir Astley Co lectures, being faulty, were corrected by Mr. Tyrrell also informed the jury that Sir Astley Cooper object the publication of his lectures in THE LANCET, whic not only beside the question at issue, but irreconcilabl Sir Astley Cooper's own words on the subject.

The jury consulted for a quarter of an hour an returned their verdict for the plaintiff, assessing the da at £50.

Immediately after the result of the trial Wakle characteristic decision, or obstinacy, or audacit different people will view the action in different published his opinion of the proceedings and took to recapitulate every word he had uttered previously using which he had just been fined. He eulogised B and was complimentary also to Serjeant Vaughan, his treatment of the case to have been fair and hor He took it for granted that the accusation of in against THE LANCET was incorporated in the learne man's brief, but thought that he must have felt as being expected to make it, knowing that no witne to be called to support his opening words. rallied Serjeant Vaughan upon his statement publication of medical lectures was especially "How did he know there was such a profit Wakley. "If he would commence the publicat next course of *gratuitous* lectures delivered by his client, Mr. Frederick Tyrrell, we will venture to by doing so for the next seven years he will sufficient profit to purchase powder for his wig."

But in commenting on the summing up of the Justice Wakley's words became graver and his lan forcible. He virtually charged his lordship wit the cudgels in Mr. Tyrrell's behalf against TH accusing him, while shielded by his office, of th the scale of the plaintiff's case the preponderati of his authority. He found the Lord Chief Ju to the jury wrong in two respects. Firstly, pointed out to them that no attempt was mad the defendant's principal charge against the p plagiarism. "Did the plaintiff," asked Wakl to falsify that charge? Did he place before tittle of evidence for the purpose of negativing t No, he did not." Yet this tacit admission not pointed out to the jury. Secondly, W disgraceful that the assertions that THE LANCE inaccurate and that Sir Astley Cooper was di them should have been made from the be evidence supported either of these assertions

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ir actual contradiction of them had been put on record in THE LANCET from Sir Astley Cooper's own lips.[2]

Wakley held that even if THE LANCET had strayed from the paths of criticism in the matter of attributing to Mr. Tyrrell motives other than proper (which he still denied) the judge in the case had gone much further beyond the boundaries of his judicial duty by characterising those responsible for the production of THE LANCET as thieves upon the unsupported statement of counsel briefed in the interests of the enemies of THE LANCET. *Wakley then stated definitely that the copy of Mr. Tyrrell's work purchased by the Editor of* THE LANCET *from Mr. Highley on Oct. 5th had no erratum slip re Desman or Denman.* Further, he added that after the action was instituted he went to Mr. Highley's shop and found there several more copies similarly deficient. He concluded the article by tearing Mr. Tyrrell's additions to his eminent uncle's lectures to tatters in a manner that showed the restraining influences of a judge's ill-opinion and a fifty pound fine to be but small, and reviewed the celebrated *erratum* for the first time by pointing out that it was written in shocking grammar—as it was.

The termination of the case of Tyrrell *v.* Wakley marks an epoch in the career both of the defendant and this journal. It was at this time that Wakley the Reformer, with THE LANCET as his weapon, became recognised as a power. Hitherto the bitterness and violent language of some of the articles in THE LANCET, and the astounding liberality of some of the editorial views, had brought to the paper considerable measure of attention, but not of a wholly respectful sort. Some men read it, some men laughed at it, and some men wondered at it, but nobody much marked it, for its views were not sufficiently condensed and its objects not definitely concentrated. But the result of this second law-suit, taken in connexion with the case of Abernethy *v.* Hutchinson, revealed Wakley as the exponent of a sound, settled, and far-reaching policy for medical reform, and from the close of 1825 onwards he had as his intelligent supporters all who could benefit by such reform and as his bitter and wide-awake antagonists all who would lose by the same. For the case of Abernethy *v.* Hutchinson dovetailed well into the case of Tyrrell *v.* Wakley. The one was an entirely impersonal affair. What Wakley and Abernethy thought of one another had no bearing upon the legal question of what measure of exclusive copyright, if any, a man might have in his spoken words as a lecturer. The other was a very personal matter indeed, for Wakley made no secret that his review of Mr. Tyrrell's book was intended to hold up that gentleman to the public as a dunce and a plagiarist. Yet on each occasion Wakley had the same inspiration—the quiddity of each attitude was the desire to curtail the privileges of the hospital surgeons and enlarge those of the rank and file of the profession. In the first case he exhibited the lecturer in his public capacity as a lecturer, and said that the profession at large had a right to read his words that they might judge of the propriety with which he filled a position the emoluments of which came—and came of necessity, not of choice—out of the pockets of the London students. In the second case he exhibited a hospital surgeon as a scientific author and a prominent member of an honourable profession which is fenced about with much traditional etiquette. These posts at the various hospitals and recognised schools attached to them are valuable, said Wakley, because of the fees which they bring and because of the position which they give to their occupants. Let us take this gentleman, then, as a specimen, and see how he discharges his duties towards the profession at large, let us estimate his scientific work, and let us inquire into his views of professional right and wrong. That was the true meaning of the libellous article out of which the lawsuit of Tyrrell *v.* Wakley arose; and the result of that suit was to reveal what had previously seemed to be aimless, if able, fault-finding as part and parcel of a deliberate policy: and Wakley's subsequent actions in the cause of reform of the Royal College of Surgeons of England and within certain of the metropolitan hospitals were but developments of that policy.

And now the persons menaced by him could see this for themselves, and their opposition grew bitterer as they reckoned up the prowess of their foe. In the Abernethy case, where Abernethy was clearly acting as the representative of his colleagues, Wakley had fought them on a purely legal question, and in the end had won the day, while during their brief period of victory he had continued to do the thing against which the aid of the Court had been asked. In the Tyrrell case he had subjected one of their order to scathing and bitter criticism as a professional man and a scientific writer, and had escaped with a fine of but one-fortieth the magnitude at which the damage that he had done had been estimated, and celebrated his escape by deliberately repeating his offence and adding to its enormity. The authorities of the Royal College of Surgeons of England were already indirectly involved in Wakley's denunciation. Their by-law, by which Abernethy and a few others were made the only teachers whose certificates of due attendance by the students at the London hospitals the College would receive, had come in for unfavourable notice, and it did not require much foresight to presage Wakley's speedy return to the attack. The staffs of the various metropolitan hospitals were also in a state of expectation. Certain of their number had been treated cavalierly, and the one man who had sought it had not been able to get any substantial legal redress. On every staff in London there were men who owed their position to other qualifications than their surgical attainments, and these men fell a-wondering whose turn it would be next.

(To be continued.)

[2] Chapter ix, of this Biography, THE LANCET, Feb. 29th, 1896, p. 573.

THE INSANITARY AREAS OF LEEDS.

A LOCAL GOVERNMENT BOARD inquiry has been held at Leeds concerning certain insanitary areas which stand condemned by the reports of the medical officer of health, Dr. J. Spottiswoode Cameron. The main difficulty rests in the fact that there are so many insanitary areas in Leeds. Even if the most extensive schemes now proposed were at once carried out there would still remain many localities where other and equally extensive schemes might with every show of reason be brought forward. Then, as if the large extent of existing evils did not suffice, new houses are constructed in such a manner as to give every promise of sanitary defects when once they have been inhabited for a little while. Apart from the usual complaints of poverty, overcrowding, defective and filthy drains, insufficient ventilation, and air space, Leeds suffers more especially from the great number of back-to-back houses. The disastrous effect on public health of back-to-back houses has been amply demonstrated at Leeds as elsewhere, yet the town council has taken no measure to prevent the building of new back-to-back houses, and dwellings of this description, where through ventilation can never be established, are now in the course of construction. It seems somewhat inconsistent to bring forward a scheme for dealing with certain insanitary areas where the chief defect is due to the great number of back-to-back houses and the want of space if at the same moment the building of more back-to-back houses in other parts of the town is allowed. The purchase and the pulling down of back-to-back houses in one part of the town and the building up of more back-to-back houses in another part of the town is a work worthy of Penelope. But if Penelope undid at night the tapestry work she had done in the daytime

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she had a good motive for postponing the termination of her task. What, however, can be the motive of the town council of Leeds in thus renewing the evils of the past? Are they awaiting the return of some Ulysses before they consent to wed themselves to the principles of sanitation? Why postpone the happy event? Why not complete the good work of pulling down old and bad back-to-back houses by refusing to sanction the building of new back-to-back houses, which must in their turn inevitably become old and bad? There is no lack of evidence as to the evil that results from such structures. It was in a group of such houses that an outbreak of typhus fever occurred in 1890. But for the isolation, not only of the patients, but of the other inhabitants of these houses and similar Draconian measures, a severe epidemic of this disease would have ensued; and this in spite of the fact that typhus fever has been almost banished from England by the progress of modern sanitation. The district where these cases of typhus fever occurred had a very bad sanitary record. The spotted maps of many years back showed that there was an exceptional prevalence of preventable disease in these houses.

A scheme for dealing with the whole neighbourhood was then elaborated. But the district is so large that it would require something like £300,000 to buy up the property. It is therefore proposed to deal at first with only a section of this area, which might be bought for £30,000; but in selecting this section the most convenient and not the most insanitary part has been chosen. The houses where the typhus fever occurred will remain standing. Then there is considerable difference of opinion as to how the scheme is to be carried out. On one side it is proposed simply to clear the space and then put up the land to auction, so that it will probably be bought up by speculative and jerry builders. It will be difficult to prevent such persons reconstituting a quarter which will become as bad as what will have been demolished. The town having so far failed to prevent the daily construction of back-to-back houses, what guarantee is there that efficient control will be exercised over the rebuilding of the insanitary areas? Others, on the contrary, urge that the municipality should obtain the necessary Parliamentary sanction to keep the land and build upon it model dwellings. This latter proposal is certainly the most promising so far as the interests of public health are concerned.

In 1891, after the epidemic of typhus fever, a special inquiry was made, and Dr. Cameron brought forward his ambitious scheme for dealing with this vast insanitary district. The area consists of no less than 37·2 acres. It is bounded by Quarry Hill on the north, Marsh-lane on the south-east, and Lady Beck on the west. It contains 2003 houses, which bring in a gross weekly rental of £382 13*s.* 9*d.*, or 3*s.* 9·85*d.* per house. If the value of these houses is estimated at a fifteen years' profit it gives us an average value for each house of £150; but it is very certain that many of the houses are not worth as much. At first it was suggested that new streets could be built and only some of the worst houses pulled down, but it now seems to be generally recognised that the only thing to be done is to condemn the entire area and remove all the houses. This, it is estimated, would cost £299,515. The prevalence of disease in this area was so great when the investigation took place that the death-rate of the area had reached during the previous six months the very high proportion of 47·3 per 1000 inhabitants. That of the whole borough was during the same period of time 26·3 per 1000, or by the corrected estimate, 25 8 as against 47·3. But this was an exceptionally unhealthy season. The death-rate for the whole year in the unsanitary area was equal to 35 51, while that of the whole borough less the insanitary area was 22 70. The death-rate of the insanitary area was thus 12·81 higher than that of the borough. It is even more significative to find that while the zymotic death-rate for the whole borough was equal to 2·40, that for the insanitary area was 7·37 per 1000. This was in the main due to measles, as the death-rate from measles in the insanitary district was equal to 4 58 per 1000, and it only amounted to 0 71 for the borough. We also find that the deaths from phthisis were 3 73 per 1000 in the condemned area and 1·79 in the borough. But then the population in the insanitary area amounts to 340 persons per acre, while that of the borough amounts to only 17 per acre. Thus it may be said that a good case has been made for condemning this area, which can only be confirmed by visiting the spot. As for the drainage, that is likewise a cause of much danger and risk. There are midden closets still remaining, and where water-closets still exist it would seem that the drains are often in a defective condition. These are now tested whenever a case of infectious disease draws attention to the houses in question. Thus in 1894 there were 2038 drains tested, and of these no less than 1653 were found defective in 1893 there were 1579 defective out of 1845 tested; and in 1892 tests were applied to 1484 drains and 1290 were found defective. This suggests that it is not necessary to wait till disease breaks out to make such examinations, but that house-to-house test of all drains should be enforced. Altogether, some 7000 house drains have been tested during the past four years. The work has entailed a great amount of extra labour on the sanitary inspectors, but even at the rate it will take from eleven to twelve years to examine the drains of the entire town. Seeing that the greater number of the drains examined are defective and allow sewer-gas to enter the dwellings, this testing of all the drains should not be deferred, but extra inspectors should be engaged, so as to carry it out promptly.

It is also proposed to deal with another and much smaller insanitary area situated in the south of the town and called Camp Fields. The prices asked for this property in 1891 were so high that the Corporation shrank from dealing with the matter. The scheme has now, however, been brought forward again. There are 272 houses and, according to the 1891 census, 1093 inhabitants. The death-rate during the years 1890–94 was equal to an average for the five years 33·0 per 1000 per annum. The death-rate in the city of Leeds was during the same five years 21·1 per 1000 and in the west registration districts of Leeds 18 2 per 1000. In this smaller insanitary area the houses are not only back to back, but some one had had the ingenious idea of filling up the yards by which the back houses are reached with a central and supplementary row of houses. Thus one row of houses look out upon the street and have no back windows because they are back-to-back with another set of houses that look out on to the yard. But this yard has been converted into a narrow passage by building another row of houses down its centre. Of course, this greatly abolishes the ventilation. Instead of an open yard there is a passage 17 ft. or 18 ft. wide, which in some parts narrows down to only 6 ft. Some of the windows that look north can obtain any sunlight. In one corner there are only thirty square yards of open space to give light and air to the doors and windows of three houses and half a fourth. One row of houses looks out towards the north on a passage only 10 ft. wide; they can never get a ray of sunshine. It is now proposed to buy up and pull down the central houses built in the back yards, and by cutting through at the two ends of these back yards convert them into open thoroughfare. This will give more air and light to houses that are at the back of the houses giving on existing streets. But the back-to-back houses will, though their condition will be improved. This improvement while leaving the main evil standing—namely, the back houses—will cost a good deal while not producing receipts whatsoever. The houses in the back yards must be purchased ahd pulled down, ratable property be destroyed, and nothing is to be built in their stead. The municipality also, by touching this ground and then leaving the back-to-back houses to remain standing, will sanctify the principle of the back-to-back houses. The gain in pulling down the houses in the back yards it will leave houses which, however defective in other respects, as back-to-back houses, while it will allow the worst to remain standing. Better far leave the place as it is, than be not possible to deal with the area in a thorough satisfactory manner. In the long run it would pay to be more economical to pull the entire area down and build not little cottages, but large, well-constructed, airy artisans' dwellings which would hold quite as large a population as that now living on the spot, and bring in not a larger, rental. This would soon recoup the outlay. In any case, it would be a fatal mistake for the municipality and the sanitary authorities to set up a standard of toleration towards back-to-back houses. To adopt a scheme which allows such abominations to remain would be too great a sacrifice of principle to secure momentary exigencies. If we examine the death-rate of Leeds for 1894 we find that, for instance, cases of diarrhœa occurred in 147 back-to-back houses, while there were only 28 cases in houses that have draughts.

Then there were 27 cases of typhoid fever in

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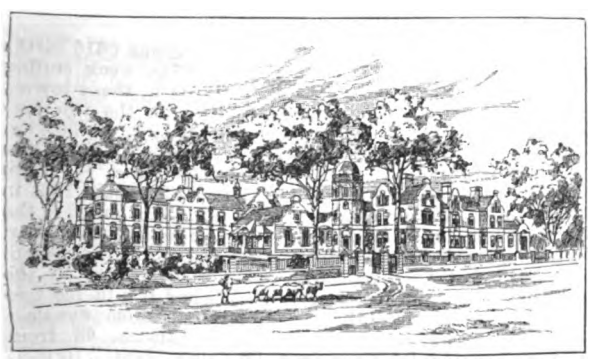
houses and only 7 in houses with a through draught. For scarlet fever there were 137 cases in back-to-back houses and 76 in houses with through ventilation. Of the cases of measles that recovered 403 occurred in back-to-back houses and 128 in "through" houses. The proportion of deaths requires to be especially noted. In the back-to-back houses there were 242 deaths from measles and in the houses with through draught only 44 deaths. So that the proportion of fatality from measles is roughly from 3 to 5, or rather more than half as many deaths as there were recoveries in the back-to-back houses; whereas in the other houses the proportion is from 1 to 3, or a third as many deaths as there were recoveries. Such comparisons are sufficiently instructive. There is much work to be done at Leeds. A large part of the town must be rebuilt. There is no reason why this should not be done in a manner that will prove advantageous; but the work must be done thoroughly, even if this means that only a little can be done at a time. We trust that the result of the Local Government Board inquiry will tend in this direction.

THE ROYAL LANCASTER INFIRMARY.

THE new Infirmary at Lancaster, which was opened last Tuesday by the Duke and Duchess of York, has received from Her Majesty, at the request of her son, the title of "Royal." It is a handsome stone building standing in its own grounds on the southern outskirts of the town and having as its near neighbours the Royal Albert Asylum and the Ripley Orphanage, the former of which, by the way, was designed by the same architects as the structure under notice. It has cost £25,000 and will accommodate sixty in-patients. The main entrance is at the base of the tower. To the right of this is the three-storeyed administrative block, and still further in the same direction are the out-patient rooms, with separate entrance and exit. To the left of the tower and standing back is the children's ward, behind and beyond which is a two-storeyed pavilion, with turrets at the end, containing the two large wards. Hidden by the front block is the operation-room, and further back the kitchens, whilst the boiler and engine-house, laundry, disinfector, mortuary, and post-mortem room are detached in the rear. Two corridors open from the hall. The one to the right runs through the administrative block parallel to the front, and, passing the



house surgeon's and matron's sitting-rooms, the nurses' dining-hall, the dining-room for the staff, and finally the board-room, ends in the out-patient waiting-room. Stairs from it lead to the nurses' and servants' bedrooms which are on the first and second floors. The other corridor from the hall leads directly backwards, crossing at right angles that which joins the children's ward to the dispensary and casualty-room. Passing on, the door to the operation-room is seen on the right, then the corridor to the household department, and then the main pavilion is entered. A fire-proof staircase on the left gives access to the upper wards. The main corridor is prolonged into a small pavilion wing consisting of special wards and day-room. The arrangements on the floor above are similar. It may save repetition to note here that all the walls are lined with cement and varnished with enamel; the out-patient rooms, theatre, special wards, hall and corridor in front block, are floored with terrazzo, which consists of marble chips set in Portland cement and highly polished. It is impervious to moisture and presents a very smooth surface without cracks. In the rest of the corridors red tiles are used; in the wards polished oak-blocks set on concrete by Ebner's process. The corridors are of good size, being 9 ft. wide and 13½ ft. in height, and are most efficiently warmed.

The children's ward, 39 ft. by 24 ft., to hold ten cots, opens on a deep balcony facing nearly due south. It is to be hoped that this outside door may not be a source of draughts, and the same remark applies to those at the end of the large wards. The grate is by Shorland with a modification by Mr. Paley, whereby the fresh hot air is delivered into the room immediately above the fittings. The same arrangement is used in other parts of the hospital. A handy little scullery adjoins the ward, and built out at one end are bathrooms and lavatories. The main wards measure 75 ft. by 30 ft. by 13½ ft., and are designed to hold twenty beds each. A large central shaft passes up the middle, with a fireplace facing each end of the ward. Near the top is an exit for air, the draught being induced by a steam coil placed above. Natural ventilation by means of sash-windows with fall-in casements at the top has, however, been chiefly relied on. Air inlets are also provided close to the floor under each bed. There is good cross ventilation between the lavatories and ward. The heating is done by hot water under low pressure, which the architects prefer to any high-pressure system. It certainly is most effective. The small wards present no special features except that two of them can be filled with steam from the main boiler if required in the treatment of laryngeal cases.

The operation room is small in size but very carefully contrived. There is a good north light. The walls have a deep tile dado, above which is enamel. The floor is terrazzo. All the corners are filled in and rounded off, curved tiles being employed in places and the whole floor slopes slightly to a gutter at one side. The basins are fitted with pedal taps. A special connexion with the electric main is provided for the cautery.

The dispensary calls for no special comment. The out-patient rooms are arranged so that the patients may pass through the consulting room, past the dispensary and out, without having to turn back. The consulting room, we note, is also to serve as surgery and receiving-room: this is hardly to be commended. The kitchens are separate from the rest of the house and yet can easily be reached either from the wards or dining rooms.

The laundry is fitted with steam machinery of the latest pattern and has a drying-room. The drains have been very carefully laid down. One point is worthy of mention and that is that all the discharge pipes from the basins are double the ordinary calibre, so rendering them less easily blocked by stray sponges and dressings. The floors are connected by a hydraulic hoist (large enough to take a bed) protected on each landing by collapsible iron trellis-work gates. The whole of the buildings are lighted by electricity, extra fittings being placed near each bed for movable lamps to be attached when necessary. There is also an electric heater in each ward-kitchen for warming small quantities of food. A complete system of telephones connects all parts of the house with a switchboard in the hall-porter's room.

To sum up. It is an excellent building equipped with every modern convenience, and although a critical observer might discover a few minor points with which to find fault, the main idea has been most carefully considered and the hospital ought to be worked with economy and ease. The architects are Messrs. Austin and Paley of Lancaster, under whose immediate supervision the work has been carried out. We are indebted to their courtesy for much valuable information and also for permission to reproduce the plan of the elevation.

EXHIBITIONS OF HORSELESS CARRIAGES.

THE importance which is being attached to the subject of horseless carriages is shown by the fact that two international exhibitions are to be held in London this year. On May 9th an International Exhibition of Motors and their Appliances will be opened at the Imperial Institute and will comprise:—I. Motor pleasure carriages propelled by (1) steam, (2) oil, (3) electricity, (4) compressed air, and

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(5) springs. II. Self-propelled vehicles employed on roads for trade purposes and for transport of goods, the motive-power being any of the means above described. III. Self-propelled ploughs and other agricultural implements. IV. Self-propelled cycles, the motive-power being any of the means above described. V. Wheels, tyres, axles, springs, seats, cushions, and the various parts used in the construction of the above three classes or of the machinery connected therewith. VI. Apparatus for aerial navigation. VII. Carriages and vehicles not self-propelled. VIII. Cycles not self-propelled. IX. Road maps, hotel and railway guides, and books, publications, and views for the use of tourists. X. Knapsacks, portmanteaux, cooking appliances, tents, picnic baskets, and other tourists' conveniences. XI. Launches, yachts, and boats propelled by (1) steam, (2) oil, (3) electricity, and (4) compressed air. XII. Lamps and approach signals, as applied to carriages and other road vehicles, and to launches, yachts, and boats. XIII. Watches, clocks, and compasses and pedometers. XIV. Stationary engines, dynamos, and motors. XV. Models of inventions, working and otherwise, in connexion with the foregoing.

At the Crystal Palace will be opened in May an exhibition of a more ambitious character—viz., the International Horse and Horseless Carriage and Roads Locomotion Exhibition which should possess considerable historical interest. The sections include:—I. Fine art, literature, sculpture, antiques and curios, and illustrations of primitive modes of travel. II. Ancient and modern harness. III. Ancient and mediæval carriages. IV. Ancient and modern carriage of the mails. V. Accessories to modern travel and sport. VI. Coaching. VII. Modern carriages. VIII. Modern transport. IX. Military and cycle transport. X. Material, plant, and machinery. XI. Mechanical road locomotion. This section is intended to be of historical as well as of present-day interest, as, together with modern steam, electric, petroleum, and traction plant, it is anticipated some of the old steam passenger carriages will be shown under this section; also motors of all kinds, in motion and at rest, suitable for the mechanical propulsion of vehicles of all classes upon common roads will be exhibited. XII. Horseless carriages. In this section will be included every kind of self-propelled passenger vehicle, these being shown in action in the extensive grounds, and competitions as to speed and general efficiency in actual work will be carried out. Facilities will also be given to exhibitors who may desire to show their motors in actual operation in boats and launches.

THE ANGLO-EGYPTIAN EXPEDITION TO THE SOUDAN.

WHETHER the Government have come to a right or wrong conclusion politically in this matter does not concern us; the House of Commons have decided in favour of such an expedition by an overwhelming majority. The Government, on the advice of the military experts whom they have consulted and at the instigation apparently of Lord Cromer and the Egyptian authorities, have taken action, and no time has been lost in making the necessary arrangements for carrying out their design. This much may, perhaps, be said in its favour, that such an expedition was bound to come sooner or later, and that the Italian disaster in Africa has only precipitated its occurrence. However, we are only concerned with the present history of the expedition and its medical aspects. There has been already a good deal of activity shown by the War Office of this country and especially by the Egyptian Government and officials in Cairo.

There are at present some 6000 Egyptian troops at Wady Halfa, and when the strength is brought up to 10,000 the march to Dongola will probably take place. The North Staffordshire regiment has started from Cairo in two special trains from Wady Halfa in excellent health and spirits, and there will be at least three battalions of British troops in the expedition, which will altogether amount to 19,000 or 20,000 men. The Sirdar, General Kitchener, proceeds to Assouan and thence to Wady Halfa, which will act as the base, to make the necessary arrangements, and Colonel Hunter, with a small advanced force, has reached Akasheh. In addition to the British officers forming part of the Egyptian force some thirty or forty officers from this country, most of whom have already seen service in Egypt, will join the force. Stores are being sent from Cairo to Wady Halfa, and a considerabl amount of them will, in any case, have to be accumulate there, with means of transport and a number of camels an baggage animals, before any advance can be made. It i unlikely that any active operations will take place, if the can be avoided, until the Nile has risen and there has bee some decrease of the extreme heat. This reminds us that ve plentiful supplies of ice for the force will be found a absolute necessity, and especially for the sick, and extrem care will have to be taken in regard to the sanitary arrang ments at Wady Halfa and at any other station where the is any aggregation of the force. The river Nile affords natural and abundant supply of excellent water if th used for potable purposes can only be guarded fr all sources of contamination. That the expedition a serious undertaking cannot be denied, for, apart fr the uncertainties of war and the strength of the forces wh Osman Digna can bring into the field and maintain ther they are a brave and formidable enemy, as we h reason to know—the heat of the climate, as far as European part of the Anglo-Egyptian expedition is c cerned, may be expected to have an inimical effect and productive, as we have said, of heat stroke, fevers, dysentery, and, unless great care is taken and we hav ceptionally good fortune, enteric fever may also give ris much sickness. It is fortunate that the climatic is a dry heat; animal and organic impurities comm desiccate and mummify instead of undergoing those p factive change for which moisture is a necessary cond and there is a comparative absence of malaria. Son the fevers—which for want of a better or more acc term may be called heat fevers—are very peculiar; clinical temperatures are high and out of all proporti the acceleration of the pulse-rate, and they are apt to p for a long time (the febrile state not yielding to the of quinine and anti-malarial remedies), and to be fol by a liability to neuralgic and quasi-rheumatic atta conditions of neurasthenia. Diarrhœa and dysente also frequent diseases in this as in all hot climate seems a pity that some of our Indian troops, the G and Sikhs, cannot be employed on this campaign, fo are eminently fitted for it and escape the diseases to Europeans are so liable in tropical and sub-tropical cl

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 64 and 3996 deaths were registered during the week March 21st. The annual rate of mortality in thes which had been 20·7 and 20·0 per 1000, in the ceding weeks, further declined last week to 19·2. I the rate was 18·8 per 1000, while it averaged 19 thirty-two provincial towns. The lowest rates towns were 12·7 in Gateshead, 13·1 in Portsmouth West Ham, 14·4 in Leicester, and 15·1 in Car highest rates were 22·8 in Salford, 23·9 in M 24·3 in Birkenhead, 24·7 in Preston, and 26·9 in The 3996 deaths included 578 which were referr principal zymotic diseases, against 590 and 636 i preceding weeks; of these, 240 resulted from 169 from whooping-cough, 72 from diphtheria, scarlet fever, 29 from diarrhœa, 25 from "feve pally enteric), and 1 from small-pox. No fatal of these diseases occurred last week in Plymou other towns they caused the lowest rates in H Halifax, and Nottingham, and the highest ra mingham, Oldham, Sunderland, Salford, London wich. The greatest mortality from measles Birkenhead, Sunderland, Burnley, Oldham and and from whooping-cough in Salford, Lond Derby, Cardiff, and Bradford. The mortality fever and from "fever" showed no marked any of the large towns. The 72 deaths from included 52 in London, 6 in Birmingham, 3 in and 3 in Liverpool. One fatal case of sm registered in Swansea, but not one in any other three large towns. There were 43 cases of sma treatment in the Metropolitan Asylum Hospi the Highgate Small-pox Hospital on Saturd 21st inst., against 51, 52, and 42 at the end

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preceding weeks; 9 new cases were admitted during the week, against 1, 13, and 4 in the three preceding weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2773, against 2933, 2857, and 2764 on the three preceding Saturdays; 277 new cases were admitted during the week, against 244 and 217 in the two preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 433 and 377 in the two preceding weeks, further declined to 345 last week, and were 172 below the corrected average. The causes of 59, or 1·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Leicester, Sunderland, Newcastle-upon-Tyne, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, Preston, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 19·2 and 19·6 per 1000 in the two preceding weeks, was again 19·6 during the week ending March 21st, and slightly exceeded the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 10·7 in Paisley and 12·6 in Leith to 23·3 in Aberdeen and 27·4 in Perth. The 572 deaths in these towns included 29 which were referred to whooping-cough, 14 to diarrhœa, 13 to measles, 6 to "fever," 4 to diphtheria, 4 to scarlet fever, and not one to small-pox. In all, 70 deaths resulted from these principal zymotic diseases, against 64 and 72 in the two preceding weeks. These 70 deaths were equal to an annual rate of 2·4 per 1000, which was 0·4 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had increased from 27 to 35 in the three preceding weeks, declined again to 29 last week, of which 20 occurred in Glasgow and 5 in Aberdeen. The fatal cases of measles, which had been 6 and 9 in the two preceding weeks, further rose to 13 last week, and included 10 in Glasgow and 2 in Edinburgh. The deaths referred to different forms of "fever," corresponded with the number in each of the two preceding weeks, and included 5 in Glasgow. The fatal cases of scarlet fever, which had increased from 3 to 7 in the three preceding weeks, declined again to 4 last week, of which 2 occurred in Glasgow and 2 in Aberdeen. The deaths from diphtheria, which had been 6 and 3 in the two preceding weeks, were 4 last week. The deaths referred to diseases of the respiratory organs in these towns, which had been 106 and 116 in the two preceding weeks, were 115 last week, and were considerably below the number recorded in the corresponding period of last year. The causes of 28, or nearly 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 23·4 and 28·3 per 1000 in the two preceding weeks, declined again to 25·4 during the week ending March 21st. During the past twelve weeks of the current quarter the death-rate in the city has averaged 25·3 per 1000, the rate during the same period being 19·7 in London and 17·7 in Edinburgh. The 170 deaths registered in Dublin during the week under notice showed a decline of 20 from the number in the preceding week, and included 7 which were referred to the principal zymotic diseases, against 7 and 10 in the two preceding weeks; of these, 3 resulted from diphtheria, 2 from whooping-cough, 1 from scarlet fever, 1 from "fever," but not one either from small-pox, measles, or diarrhœa. These 7 deaths were equal to an annual rate of 1·0 per 1000, the zymotic death-rate during the same period being 3·7 in London and 1·9 in Edinburgh. The 3 fatal cases of diphtheria were the first recorded within the city since December last. The deaths referred to whooping-cough, which had been 3 and 2 in the two preceding weeks, were again 2 last week. The mortality from scarlet fever and from "fever" showed a decline from that recorded in the preceding week. The 170 deaths in Dublin last week included 18 of infants under one year of age, and 44 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from the numbers recorded in the preceding week. Eight inquest cases and 4 deaths from violence were registered; and 50, or nearly a third, of the deaths occurred in public institutions. The causes of 6, or nearly 4 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

SURGEON-LIEUTENANT-COLONEL COATS has been appointed to Ayr in succession to Brigade-Surgeon Macfadin, retired pay. Surgeon-Major Hackett has been posted to Aldershot, and Surgeon-Major Kelly to Netley. The arrival of Surgeon-Captains Allport and Luther in Malta is reported, and Surgeon-Major Tidbury has left Malta on relief. Surgeon-Major Braddell and Surgeon-Captain Harris proceed to Egypt on March 27th, and Surgeon-Major Dugdale and Surgeon-Captain Daly are under orders to proceed. Brigade-Surgeon-Lieutenant-Colonel O'Connell has been appointed to the medical charge of the Royal Infirmary in succession to Brigade-Surgeon-Lieutenant-Colonel Holmes, under orders for Gosport.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Lieutenant-Colonel Smith, A.M.S., is transferred from the Deesa district to the Poona district; Surgeon-Major Mitchell, A.M.S., is transferred from the Poona district to the Deesa district; Surgeon-Captain Melville, A.M.S., is transferred from the Mhow district to the Poona district; and Surgeon-Captain Stoney, A.M.S., is transferred from the Quetta district to the Mhow district. Dr. H. A. Macleod is confirmed as an Uncovenanted Medical Officer in the North-Western Provinces and Oudh. Surgeon-Captain A. G. Hendley, Officiating Civil Surgeon, Seoni, whose services have been placed permanently at the disposal of the Chief Commissioner of the Central Provinces by the Government of India, Home Department, is confirmed in his appointment with retrospective effect from April 21st, 1893.

NAVAL MEDICAL SERVICE.

Staff-Surgeon Charles Albert Macaulay, M.D., has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet.

The following appointments are announced:—Fleet-Surgeons: H. E. Cross to the *Hibernia*, additional for service in Malta Dockyard (to take effect on the *Nelson* arriving at Malta); W. E. Breton M.D., to the *Trafalgar*; and V. Duke, M.D., to the *Nelson*. Staff-Surgeons: Henry Harries to the *President*, additional; and W. M. Lory to the *Edgar*. Surgeons: H. Spicer, M.B., to the *Trafalgar*; L. Lolan, M.B., to the *Nelson*, for duty on the voyage home; and J. Lowney to Chatham Hospital.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain William Collingridge, M.D., resigns his commission. Surgeon-Lieutenant Edmond William St. Vincent Ryan, 16th Middlesex Volunteer Rifle Corps, to be Surgeon-Lieutenant.

VOLUNTEER CORPS.

Artillery: 1st Lanarkshire; Surgeon-Lieutenant A. K. Chalmers, M.D., to be Surgeon-Captain. *Rifle:* 2nd Volunteer Battalion the Gloucestershire Regiment: Surgeon-Captain W. M. Hope resigns his commission. 2nd Volunteer Battalion the Duke of Cambridge's Own (Middlesex Regiment: Surgeon-Captain H. G. G. Wilkins resigns his commission.

THE VOLUNTEER OFFICERS' DECORATION.

The Queen has conferred the Volunteer Officers' Decoration upon the undermentioned officer of the Volunteer Force:—*North-Eastern District: Rifle:* 5th Volunteer Battalion the Durham Light Infantry; Surgeon-Major Philip Brown, retired.

THE ITALIANS IN AFRICA.

The state of Italian affairs in Africa, although it has undergone no essential change, has on the whole rather improved. Kassala still holds out, in spite of the fact that it is pretty well surrounded, and the Dervishes in its vicinity have made repeated attacks on the Italian garrison, but have been repulsed. Some severe fighting has taken place at the pass of

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Sabderat, and reinforcements have been sent from Kassala to that place, which is held by the Italians with two native battalions and a force of artillery. The road between Agarda and Sabderat is still open, and it is intended to strengthen Captain Stefani's column at Agardat. The fort at Adigrat is being successfully held by the Italians, and as it is provisioned to the end of April and has a plentiful supply of water it will probably hold out for a time. Everything depends, of course, upon a sufficiency of water and provisions at the places occupied by the Italians. A number of stragglers and wounded from the battle of Adowa are coming in. General Baldissera has received final instructions from the Government at Rome as to the terms on which a treaty of peace can be made with King Menelek and the Shoans. The Russian Government have dispatched a section of the Imperial Red Cross Society to the aid of the Abyssinian forces. We are much afraid, with all the fighting that took place at the disastrous battle at Adowa and the desultory warfare that has subsequently ensued at different parts, together with the difficulties attending the food and water supply and the provision of surgical and nursing aid to the wounded, that the sufferings and loss of life among the soldiers of both sides have been very great. Unfortunately for Italy she is greatly crippled by the bad state of her finances, and the conclusion of a satisfactory treaty of peace is greatly to be desired.

PEMBROKE CAMP, MALTA.

Our readers will probably have noticed that questions in Parliament regarding the health of the troops and the sanitary state of camps and barracks are nowadays more fully and frankly answered than was formerly the case. We are glad to observe that the War Minister for the time being, or his representative, does not content himself with the barest possible statement of facts, but commonly affords Parliament the latest and best information available. The Marquis of Lansdowne, for example, in reply to a question the other day in the House of Lords, entered pretty fully into details in connexion with the occurrence of some fatal cases of enteric fever at Pembroke Camp in Malta and into the past medical history of that camp and the very serious sanitary defects that had been discovered there and reported on by a committee as long ago as in 1894. The War Minister pointed out the practical difficulties that had presented themselves in the way of promptly providing a new and effective system of drainage. He added, however, that he fully recognised the importance of the subject and that it required the attention which he promised should be given to it. We wish that inquiries into matters connected with the sanitary state of our naval and military forces were always considered in the same spirit. The fact is—and it is one well known to the War Office authorities—that the condition of many of the barrack buildings and camps, both at home and abroad, renders it necessary that a work of reconstruction should extensively be carried on and that considerable expenditure must be incurred for the purpose.

THE SITE OF THE NEW NAVAL COLLEGE.

In the discussion which recently took place in the House of Commons on the Naval Works Bill there was considerable difference of opinion in regard to the best site for the erection of a naval college on shore as a substitute for the *Britannia*. As to the proposal to give up the *Britannia* we think the Admiralty amply justified in this respect, for the vessel is, on hygienic and other grounds, altogether unsuitable for the purposes of a training college for naval cadets. But we are not by any means so sure of the wisdom and expediency of selecting Dartmouth as a site for the new college. It is true that the site is an open and elevated one and exposed to the winds of Dartmoor, but the climate of Devonshire is moist and relaxing instead of bracing and invigorating, and in that respect, however healthy and suitable it may be for many people, it does not seem to us to be the best that could be chosen for the physical development of growing lads. Moreover, if some elevated and open site in the neighbourhood of the Solent were selected Haslar Hospital would presumably be available for cases of sickness occurring among the cadets, especially for such as required isolation; whereas a hospital, with proper isolation wards separated from the main building, would require to be built at Dartmoor. We think Sir A. Armstrong and Dr. Reid were right in the conclusion at which they arrived in the matter.

DEATH IN THE SERVICES.

Surgeon-General John Hendley, C.B., M.R.C.S., L.S.A., Wallingford last week. He entered the Army Medical Serv in 1851 and retired in 1887 with the rank of Inspect General. He was wounded at Gambia forty years ago in engagement with the Mahommedans. Later he saw act service in the Indian North-West Frontier war, was present at the storming of the Conical Hill at the destruction of the village at the foot of Bonair Pass, which episode concluded the struggle marked the submission of the hill tribes. For this camp he was awarded the medal and clasp. In the Afghan of 1878–9 he was the principal medical officer of the Wes Afghanistan field force, and after the war he was mad Companion of the Bath. He acted as principal med officer at Aldershot till the time of his retirement, and regretted death at the age of sixty-eight took place aft very short illness.

THE MILK-SUPPLY OF ALDERSHOT CAMP.

Much indignation locally has been expressed at th tention of the War Office to open a dairy on the Govern sewage-farm at Aldershot—of all places in the wo whence the troops will be supplied. At a meeting a Conservative Club on March 17th the Government con tion with dairymen was largely dwelt on, and Mr. Str among others, pointed out the readiness of milk to a deleterious matter and its extensive powers of spre contagion. Town water, it appears, is to be laid on proposed dairy. Resolutions and a memorial to the members of Parliament and to Mr. St. John Brodrick represents the adjoining division—were prepared deputation appointed.

It is notified that the Queen's Birthday will be cele on Wednesday, May 20th next, at all Naval and M Stations, as well as in London.

The claims of all officers above the rank of S Major to promotion are now brought under the cog of the Promotion Board in Victoria-street.

Correspondence.

"Audi alteram partem."

"THE OBJECTS AND LIMITS OF OP TION FOR CANCER."

To the Editors of THE LANCET.

SIRS,—Mr. Marmaduke Sheild's sententious remar LANCET of March 21st, unsupported as they are by not at first sight appear to call for any reply; as, ho introduces my name, and as it might thus appear attempting to controvert something in my lecture by the way, he did not do me the honour to atten apparently not read—it may be well if I reiterate views on the curability of cancer. The facts on w views are founded are referred to in my lecture readily be multiplied if necessary.

1. I believe that cancer is curable by thorough in a certain proportion of cases, the term curable in the only sense in which it can be employed in r neoplasms—that is to say, I believe that in a cert tion of cases the disease can be entirely roo operation and will not recur. 2. The proporti depends (*a*) on the degree of malignancy of (*b*) on the thoroughness with which the operat and (*c*) on the earliness of the operation. 3. after operation means in the great majority of cas removal and continued growth of cancerous tissue and not a fresh outbreak of the disease. In some r of epithelioma the latter may, however, be the c example to which I referred, where, years afte a cancer in the mouth, a colloid cancer deve stomach. In the case of the breast, howeve gland has been entirely removed, recurrence, l cannot imply a fresh outbreak of disease, but c continued growth of disease left behind by th the original operation. 4. As to the period of

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one may reckon that the risk of recurrence has passed no absolute limit can be laid down, but in the case of the breast Volkmann's three-year limit is fairly accurate and very convenient. I pointed out, however, that it was not absolute, and referred to cases in which recurrence had become manifest at a later period. The proportion of such recurrences is, however, quite small and, as I mentioned, the highest estimate is given by König, who places it at 15 per cent. Thus, of breast cases apparently quite free from disease after three years, something like 85 per cent. may be looked on as permanently cured. No time limit can be assigned for the other 15 per cent.; they are usually cases of atrophic scirrhus which has been imperfectly removed and are slow in recurring, and in some of them probably the examination at the end of three years has been imperfect. In the case of the rectum the limit must be considerably extended, for, as is evident from several statistics, about 40 per cent. of those apparently well at the end of three years subsequently recur.

I must apologise for taking up your space so soon with the repetition of these points. They were all carefully laid down in my lectures and will be quite clear to any one who reads them intelligently and without prejudice.

I am, Sirs, yours faithfully,

March 23rd, 1896. W. WATSON CHEYNE.

To the Editors of THE LANCET.

SIRS,—In reference to Mr. Watson Cheyne's recent lecture on mammary cancer, reported in THE LANCET of Feb. 15th last, does it not seem that the following case, recently under my care and showing the lymphatic connexion of the mammary gland, points to the importance of removing the supra-clavicular glands in early cancer of that organ if as good a chance as possible of radical cure is aimed at in every case? A patient six weeks after delivery complained of a swelling recently formed above her left clavicle and of pain in, and tenderness of, the breast on that side; ill-developed nipples had altogether prevented suckling. On examination the lobules of the breast were found to be distended with milk, and the swelling above the clavicle was an enlarged lymphatic gland resulting therefrom. The axillary glands were unaffected. After treatment directed to the breast the adenitis diminished. She informed me that after her previous confinement she had a similar state of affairs, and a scar adjacent to the above swelling showed where a similarly affected gland had suppurated and burst.

I am, Sirs, yours truly,

LIONEL N. HARDING, M.B. Camb.

Brighton, March 18th, 1896.

THE QUESTION OF MEDICAL DEFENCE.

To the Editors of THE LANCET.

SIRS,—In answer to Dr. Heron and Mr. Bruce Clarke, I have only to draw the attention of your readers to your report of the annual meeting of the Medical Defence Union in your issue of Feb. 29th, 1896, and to my former letter in your issue of the 14th inst. In the latter I wrote that "up to March 6th, 1896, the only point of difference remaining was, as I had stated previously at the meeting, that of the name of the amalgamated bodies. On March 6th, however, Mr. Oakley, solicitor to the London and Counties Medical Protection Society, raised a number of fresh obstacles which I sincerely hope and expect the combined councils will have no difficulty in removing." All this being correct I am still of that opinion, and remain Yours faithfully,

March 25th, 1896. VICTOR HORSLEY.

"FUNCTIONAL APHONIA IN MAN; TREATMENT, ETC.; WITH SPECIAL REFERENCE TO SO-CALLED VARICOSE VEINS AT THE BASE OF THE TONGUE."

To the Editors of THE LANCET.

SIRS,—It will be obvious to all who have followed this controversy that unless a categorical denial be given to Mr. Lennox Browne's "confident" expectation—viz., that the signatories of the conjoint letter published in THE LANCET of Feb. 29th would now feel that they had been somewhat in a hurry to endorse Dr. Herbert Tilley's and Dr. Watson Williams's views as stated in THE LANCET of Feb. 15th and 22nd—their silence would in all probability be misconstrued as Dr. McBride's and Dr. Williams's plain statements had been misconstrued. Allow me, therefore, to say, first, that the real question at issue is not (as casual readers might have been led to believe from the prominence given to this point in Mr. Lennox Browne's last letter) whether Dr. Watson Williams has changed his former opinions, but whether the so-called varicose veins at the base of the tongue, alone or as part of a "complex" condition, represent an actual disease, very often necessitating, to judge from my personal experience, in the opinion of its partisans galvano-caustic interference. Secondly, permit me to state that, so far from regretting that I have expressed a definite opinion to the contrary, I should do so to-morrow again were it necessary, and in stating this I have not the least doubt that I express the feelings of all the signatories to the conjoint letter, one of whom is at present abroad.—I am, Sirs, yours faithfully,

Wimpole-street, March 24th, 1896. FELIX SEMON.

To the Editors of THE LANCET.

SIRS,—In his letter of March 2nd, published in THE LANCET of March 7th, Mr. Lennox Browne, on the strength of a manipulation which I exposed in THE LANCET of March 14th, claimed me as his ally. After I had repudiated that position Mr. Browne now, in his letter of March 16th published in THE LANCET of March 21st, deems fit to doubt the sincerity of my convictions. Considering that this remarkable change of front with him required only one fortnight, it is surely rather hard that he, of all persons, should twit me with inconsistency. At the same time I am grateful to him for having given me the opportunity of now publicly expressing my regret that I should ever have had so much confidence in his teaching as to pen the sentences he quotes. In the preface to my book I state expressly "only to a very limited degree can I lay claim to originality, as my purpose has been simply to reflect the present state of knowledge in this department of medicine;" and I further say, "the greater portion of this work was written a year ago, but from unavoidable causes its publication has been delayed." When in 1893 I wrote the sentences now brought forward against me I, *bonâ-fide*, accepted as facts the statements put forth by Mr. Browne, never dreaming what use was made of them in practice. Subsequent personal experience convinced me that the pathological importance of the so-called varicose veins had been grossly exaggerated, and just because I had unwittingly assisted in promulgating views which, as now shown in your columns, are put into practice with most deplorable effects I considered it my duty to record my personal experience in the letter which you were good enough to publish in THE LANCET of Feb. 22nd. I do not think it in the least derogatory for anyone to modify his views if he sees that he has been mistaken, and if I now regret one thing it is that I did not expressly say in my first letter that I wished to correct my former utterances on the subject. But had I done so I should have laid myself open to the accusation that I wished covertly to advertise my book.

However hard Mr. Browne may try to confuse, even in his last letter, the real issue, I venture to hope that the eyes of the profession are now opened to the reality of the abuses denounced by Drs. Tilley and Coates, and if the frank confession of my own conversion to better views exposes me in the eyes of Mr. Browne and his friends to the reproach of inconsistency I trust that a different interpretation will be accorded to it at the hands of the bulk of the profession.

I am, Sirs. yours faithfully,

Clifton, Bristol, March 23rd, 1896. P. WATSON WILLIAMS.

To the Editors of THE LANCET.

SIRS,—Doubtless many of your readers in other branches of the profession besides that more immediately concerned have been interested in the discussion on "lingual varix." As a general practitioner I have noted with pleasure the outspoken protest of several laryngologists against what they regard as the exaggerated importance attached to a trivial condition. Without venturing to express an opinion upon the question at issue, may I be permitted to relate the experience of a relative of mine. I give it as nearly as possible in the patient's own words. He consulted a specialist, complaining of "hoarseness in singing," and was

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informed that his complaint was due to "varicose veins," which "had to be cauterised." On an appointed day the galvano-cautery was applied. At his next visit this proceeding was repeated. Returning after a few days as directed, the patient informed the operator that the symptoms were unrelieved. On this occasion the nasal passages were explored by the specialist, who exclaimed, "You have a lot of polypi in your nose; we must get rid of these at once." This was done and the polypi displayed to the patient's gaze, "the largest being as big as a large pin's head," and the patient was informed that the persistence of his symptoms was due to the reflex irritation of these "polypi." Unfortunately the patient obtained no relief from these procedures, but he was informed that he "could not expect to be well in a few weeks"; he "must return in six months." This, however, he did not do, as he had derived no benefit from the operations to which he had submitted.

I am well aware that this episode is by no means characteristic of laryngology, yet it shows that there is reason for observing that the pain and expense to the patient are factors not to be ignored, and it is a matter for congratulation that the protest comes from specialists in that branch of medicine. It is possible that from internal evidence the specialist in question may recognise this case and will understand that when "lingual varix" is discovered the enthusiasm is often somewhat one-sided when, as in this case, the patient continues to suffer to the end of his life from the symptoms for the relief of which he has submitted to operation.

I am, Sirs, yours &c.,

March 18th, 1896. C. W. J. BRASHER.

To the Editors of THE LANCET.

SIRS,—Last week I was obliged to ask space that I might expose the discrepancy between the opinions of Dr. Watson Williams on this subject as expressed in his book published in October, 1894, and in his letters to THE LANCET in February and March, 1896. I am again compelled to intrude on you for the purpose of emphasising a still more amazing lapse of memory on the part of Dr. Herbert Tilley, and I cannot do so better than by placing recent utterances from him on two points in this discussion in parallel columns.

"I have never stated or inferred that it is a special doctrine of *Mr. Browne's Hospital* (*sic*) that functional aphonia is due to varicose veins at the base of the tongue as the now *insinuates*" (*iter sic*).—THE LANCET, March 21st, 1896, p. 803.

"Case of Functional Aphonia in Man, &c.

"The following case which has recently come under my notice ..... was said to be due to varicose veins at the base of the tongue, the appropriate treatment being cauterisation by means of the galvano cautery, a pathology and treatment which, I believe, emanate from an institution in London where diseases of the ear, nose, and throat receive special attention."—THE LANCET, Feb. 15th, 1896, p. 412.

"Mr. Browne now carefully avoids reply to my offer—viz., to give him the names of the patients and of the consultants."—THE LANCET, March 21st, 1896, p. 802.

"If, however, Mr. Lennox Browne wishes for the names of the consultants referred to and the patients I shall be perfectly willing to publish them (with their permission and that of the editors) in a coming number of THE LANCET."—THE LANCET, Feb. 29th, 1896, p. 582.

Very little comment is needed by those who have followed this discussion, but unless Dr. Tilley is prepared to deny that he referred to the Central London Throat, Nose, and Ear Hospital, which—with poor compliment to the colleagues who treated him so hospitably—he calls mine, as the source of emanation of the extravagant doctrine rightly ridiculed by him, it is difficult to recognise the two statements first paralleled. If Dr. Tilley does make that denial I must again ask him at what other institution in London of a like kind is such a doctrine taught and what printed evidence he has for his statement?

As to the giving of names. Has Dr. Herbert Tilley, like other of my opponents, no sense of humour? Did he for a moment suppose that I should treat his conditions seriously? On him lies the *onus probandi*, and only with his first case of functional aphonia which forms the title of his communication have I to deal. Of course I want the names—I have asked for them—but how can I give him the permission to publish that of either consultant or patient of whose identity I am ignorant; and is it likely that Dr. Tilley will obtain that of the consultant who, to quote from his reply to Dr. Holloway,[1] he not only infers but asserts, treat a condition as diseased which did not exist? There wa however, nothing to prevent Dr. Tilley from giving t name of the medical attendant who brought him the pati and this would have at least afforded some clue to ident and an evidence of good faith. But even this he has done.

I have already expressed my conviction that if the facts his report are correct this case was never in my hands, bu Dr. Tilley thinks it was he is quite at liberty to declare it.

No, Sirs, it is not I who have made the pitfall in wh Dr. Tilley is floundering. I have only by my "rhetori brushed away the insecure "basis of his facts" (!!!) an he wants to once more stand on firm ground it is not fo to lift him up, but for himself to climb down.

I am, Sirs, yours faithfully,

Mansfield-street, March 23rd, 1896. LENNOX BROWN

*** We do not see that Dr. Tilley is "floundering in pitfall" (or, we may add, if he is, that the best wa escape from a pit is to "climb down"), and consider the points raised by Mr. Lennox Browne in this last are not germane to the controversy. We have referr the correspondence in a leading article this week. W give no more space to the subject.—ED. L.

"THE EAST END MOTHERS' HOME."

To the Editors of THE LANCET.

SIRS,—In your comments upon the report of the Ea Mother's Home, you allude to the mortality returns as incorrect. In drawing up the statistics I have me those who died while under the care of the home, and out-door—in the eleven years ending Dec., 1895, died. Three deaths occurred during the same perio at the time had ceased to be under the care of the ho were as follows:—Case 1: Dysenteric diarrhœa, die London Hospital. Case 2: Pneumonia beginning f days after delivery, then attended by the parish died at home. Case 3: Peritonitis, removed to the infirmary at her own request and died there.

I am, Sirs, yours obediently,

Mile-end, March 24th, 1896. M. C. Co

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 21st you an unfavourable criticism of the above institutio appeared in your columns last year and remark t regret to find that many of the features to which called attention remain as before." This refers to of statements which met with a flat denial by ou officer the following week. So far from expressing y or endeavouring to prove your points you took n the denial and now repeat some of your former stat the ground that "we are informed." The points you "are informed"—viz., as to fraudulent o statistics—if stripped of all verbosity amounts t that women have died in their own homes or in so hospital after being attended in the Home and been reported as "recovered." Now the Home i from all general hospitals except the London Ho it is extremely unlikely that any such cases would their way to any other.

The obstetric physician, Dr. Herman, and th obstetric physician, Dr. Lewers, of the London Hos whose care such cases must have been admitted, them members of the consultative staff of the Mot and must have known if any such cases had oc should certainly have remonstrated with the me and committee on the danger of discharging pat being fully recovered. The Home has also been c at its annual meeting by many of the lea the obstetric physicians of London and h much support from intelligent philanthropists, certainly not contribute their names, their t money if its character were proved to be s informant insinuates. You also note that whils page we point, "supported entirely by volunt tions," we yet charge a fee of 3*s.* 6*d.* to women their own homes. The Home was establish

[1] THE LANCET, Feb. 29th, 1896.

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home, and t remains free—it is entirely supported by voluntary contributions—not one penny voluntarily contributed goes to meet any payment made by a patient. The out-patients' department is separate from the Home itself, and is self-supporting with the exception of one generous donation given year by year for the express purpose of establishing this out-door work. Last year you intimated that the committee were disingenuous in not placing it on record in the report that a fee was charged to out-door patients, and it was on purpose to meet this criticism that in this year's report we mention the fact of such a fee being charged. I might remind you that other charities which advertise as supported by voluntary contributions also have out-door work connected with their free institutions for which fees are charged, notably the London Hospital Trained Nurse Supply System. Criticism may be of two kinds—honest criticism, which has for its object the removal of defects, and for that we are most grateful and are ready to profit by it; and carping criticism, whose only object is to discredit the object criticised. In this latter criticism I must confess that your "informant" has indulged. I would willingly acquit the distinguished editors of any real intention to injure an institution which has done and is doing so good a work amongst the East London poor, but it is difficult to understand the attitude of one who has not the courage to attack openly, who will not let his victim see his face, but prefers to stab in the back and in the dark, and it would be kinder if your informant would write his own name and would state what his information really is that the public may know what amount of credit his statements deserve. I will only say in conclusion that the committee of the home would welcome any inquiry into their modes of work, and if you, Sirs, would nominate any gentlemen or ladies, whether of the Faculty or not, to visit and report on the home, its methods, and its results, every facility would be given to them, and the committee would gladly consider any suggestions they might be pleased to make for the better management and increased efficiency of the charity.

I am, Sirs, yours truly,

MARMADUKE HARE,
Chairman of the Committee of Management, Rector of Bow, and Chairman of the Poplar Board of Guardians.

The Rectory, Bow, E., March 24th, 1896.

"AN UNSATISFACTORY VERDICT."

To the Editors of THE LANCET.

SIRS,—At the commencement of your remarks upon the above subject in THE LANCET of Feb. 15th you state that "a coroner's inquiry often falls short of success in its primary and essential function—the ascertaining of the cause of death." That this is a fact everyone who is in the habit of reading the daily papers must acknowledge and regret. To what, then, is this failure due? As bearing very directly on the subject I wish to mention two cases which have come under my own observation. In the first —— was found dead only a few hours after obtaining advice for a somewhat serious condition in my own house. As distinct evidence of his having recently consulted a medical man the bottle of medicine was found in his pocket. The body was removed under the superintendence of the police and the coroner's inquest held. No medical evidence was called and apparently no questions were asked as to where or for what purpose the medicine was obtained. I could if required have given a very probable cause of death, which could easily have been verified or disproved by a post-mortem examination. The cause which would have been suggested was, I believe, absolutely unknown to the relatives and other witnesses, so that no evidence could possibly be forthcoming upon the subject. The jury, however, easily came to a decision and found a verdict, the only result of which was that the body was allowed burial in consecrated ground.

In the second case —— was found dead at 10 A.M. in a small stream of water situated in an extremely lonely place about half a mile from her own home. A messenger was despatched for myself and for the police, and I at once responded to the summons. On my way to the place I was informed that the deceased had not been seen, so far as was then known, since 8 P.M. on the previous evening. I found that the local constable could not be present for some hours, and on my arrival I had the body removed after carefully noting the position and all surroundings. The water was about two feet deep, the face was turned downwards and to the left, the whole body rigid, the hands not clenched, the skin blue and sodden, and the mouth firmly closed. Rightly or wrongly, I deferred a more thorough examination until after the police had had an opportunity of seeing the body, contenting myself with an inspection of the head and other parts which could be easily seen without being stripped. I paid special attention to the surrounding ground and to some articles of clothing which had been removed before the immersion. To my amazement I was informed the same night that the inquest would be held on the next day and that I should probably not be wanted. The inquest was held and I was never called; consequently evidence which could only have been given by myself was never obtained. The constable's version of my opinion was given and apparently accepted by the coroner and jury, though I considered that I had not sufficient grounds for coming to a decision and certainly made no statement. The verdict of "Found drowned" was arrived at without either coroner or jury seeing the place where deceased was found. Now I wish to know what possible benefit can result from such inquiries. They do nothing to assist in the conviction of the guilty or to help to clear up the characters of innocent, but probably suspected, persons.

In nearly every case of open verdict there will be doubts in some minds as to how death was caused, and I contend that such an open verdict should never be considered sufficient unless every possible piece of evidence has been sifted in vain. If we as medical men raise our voices in the matter we lay ourselves open to the ungracious rebuff mentioned in THE LANCET of Feb. 29th—"you want to open the body and get your two-guinea fee"—or to the almost equally absurd one of wanting to give evidence and get a guinea. Is it for giving evidence or for the previous investigation that we are paid? Is the present mode of conducting inquiries consistent with the highly important position which a coroner's court ought to hold? If it is to continue to hold such a position, surely it is high time that a medical man should be invariably present either as coroner or witness or both.

I am, Sirs, yours faithfully,

C. H. POWERS, L.R.C.P. Lond., M.R.C.S. Eng.

Gosforth, Cumberland, March 17th, 1896.

"AN OVERDOSE OF STRYCHNINE."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Feb. 29th was an account of a medical practitioner's unpleasant experiences after an overdose of "strychnine." It interested me very much, as I have had a similar experience of the "tetanus," a short account of which I send you, as another added to almost a rare occurrence. Three years ago I was reading for an examination, and feeling "run down" I took 10 minims of strychnia solution (B.P.) with the same quantity of dilute phosphoric acid well diluted twice a day. On the second day of taking it, towards the evening, I felt a tightness in the "facial muscles" and a peculiar metallic taste in the mouth. There was great uneasiness and restlessness, and I felt a desire to walk about and do something rather than sit still and read. I lay on the bed and the calf muscles began to stiffen and jerk. My toes drew up under my feet, and as I moved or turned my head flashes of light kept darting across my eyes. I then knew something serious was developing, so I crawled off the bed and scrambled to a case in my room and got out (fortunately) the bromide of potassium and the chloral. I had no confidence or courage to weigh them, so I guessed the quantity—about 30 gr. bromide of potassium and 10 gr. chloral—put them in a tumbler with some water, and drank it off. My whole body was in a cold sweat, with anginous attacks in the precordial region, and a feeling of "going off." I did not call for medical aid, as I thought the symptoms declining. I felt better, but my lower limbs were as cold as ice and the calf muscles kept tense and jerking. There was no opisthotonos, only a slight stiffness at the back of the neck. Half an hour later, as I could judge, I took the same quantity of bromide of potassium and chloral, and a little time after I lost consciousness and fell into a "profound sleep," awaking in the morning with no unpleasant symptoms, no headache, &c., but a desire "to be on the move" and a slight feeling of stiffness in the jaw. These worked off during the day. The recollection of that night is so indelibly fixed on my memory that I shall never forget it. Although not so bad as your other correspondent it is "added testimony" to his. Trusting this may be of use,

I am, Sirs, yours faithfully,

LEONARD SANDALL,
Student in Medicine.

Railton-road, Herne-hill, S.E., March, 1896.

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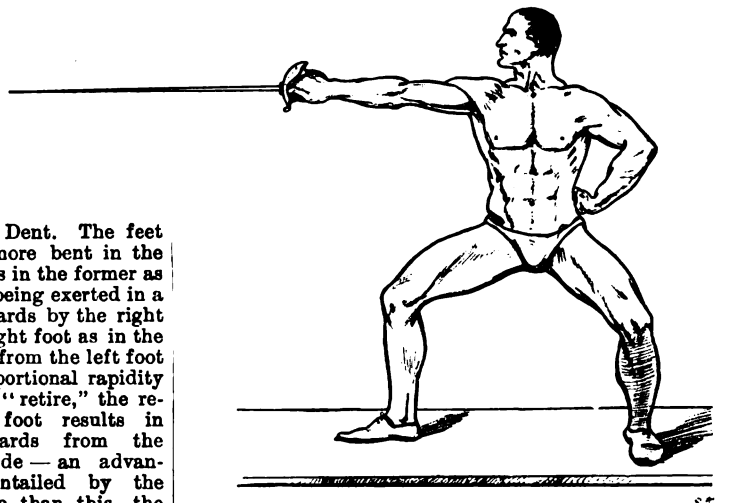
"THE NEW INFANTRY SWORD EXERCISE."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 30th, 1895, there appeared an article by Mr. Dent, in which he regrets that "a system based on sound scientific principles should be replaced by one that possesses no such advantages." Apart from the general merits of the two systems—on which the military experts in England and the results of the competitions at the Royal Military Tournaments both at London and at Dublin have decided in favour of the Italian or new system—I shall be glad if you will permit me to answer some of the particular arguments used by Mr. Dent against this system. He describes the two "on guard" positions and continues: "The 'advance' and 'retire,' it is evident on anatomical grounds, can be made more rapidly in the French and with less expenditure of energy than in the Italian attitude. So, too, can recovery to the first position, with the heels aligned, or the extension forward as in the lunge." As far as rapidity is concerned, with the exception of the recovery to the first position (a movement of absolutely no importance), both theory and practice point to a conclusion exactly opposite to that which is evident to Mr. Dent. The feet being further separated and the knees more bent in the Italian than in the French position there is in the former as compared with the latter a stronger push being exerted in a direction forwards by the left and backwards by the right foot. By removing the resistance of the right foot as in the advance or the lunge, this stronger push from the left foot has immediate effect in producing a proportional rapidity of forward movement. So also in the "retire," the removal of the resistance of the left foot results in greater rapidity of movement backwards from the Italian than from the French attitude — an advantage well worth the extra effort entailed by the further separation of the feet. But more than this—the power, extent of reach, and rapidity of the lunge are enormously augmented by the simultaneous inclination of the body in the Italian system as compared with the French, in which the body is kept vertical. Mr. Dent, when dealing with this double movement, admits the greater power of thrust obtained by it; and though it is obviously a slip of the pen that makes him attribute to "On Guard's" letter in the *Broad Arrow* the statement that "in the Italian system there is only one (movement), that of the foot," his next sentence referring to the "extension of the arm in the French lunge" is most misleading, for in the system he advocates it is well laid down that the extension of the sword arm must always *precede* the lunge, so that the force and rapidity of the combined movements are lost in the French system.

With regard to the recovery from the lunge, Mr. Dent, in quoting part of "On Guard's" excellent account of the recovery, adds two words in brackets. By them he attributes to "On Guard" the statement that it is "the left" leg on which the strain of recovery falls; whereas it is almost entirely thrown on the *right* leg. He continues: "In recovery from the Italian lunge, the centre of gravity being thrown far forward, the trunk has first of all to be straightened on the legs—that is, to be brought to a more or less vertical position. This has to be effected by the gluteal muscles, which, again, owing to the attitude, act at a great mechanical disadvantage and therefore act only slowly." And further on: "The initial movement (of recovery) ..... must be slow and involve very powerful contraction of a single muscle to take place at all." Anyone reading these statements would naturally come to the conclusion that the swing backwards from the inclined to the vertical position was an extremely slow and an extremely weak one. Before accepting such a conclusion let him try the experiment. Let him assume the Italian and the French positions of the lunge, and recover to the "on guard" position in each respectively against the resistance, for example, of some one pulling him forwards by the right hand, or of a weight communicating with his right hand by a rope running over a b or pulley. He will find that he is able by "the backwa swing of the body" from the Italian position to raise a muc greater weight, or a small weight with much great velocity, than from the French position without the swing the body. It is interesting to consider what are t forces at work in this recovery. If I understand M Dent's letter correctly, he maintains that the recove of the body to the vertical position is effected solely by t contraction of the gluteal muscle or muscles passing fr the pelvis to the left femur, and the remaining part of t recovery by which the feet and body return to the position on guard by the efforts of the left leg. Now if anyone

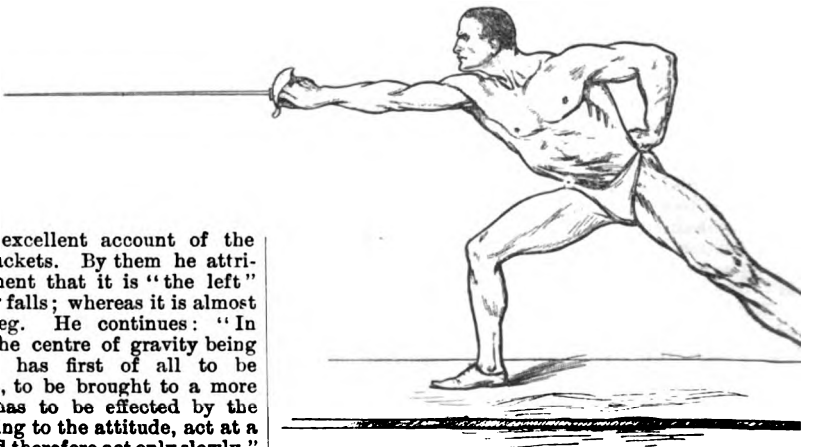
FIG. 1.



Italian "on guard" position.

assume the position of the Italian lunge and with hi upon the left gluteal muscles will notice their co while he swings the body from the inclined to the position, he will perceive that they are wholly or co tively quiescent. They can, no doubt, be contracted the movement, but the movement is certainly not ca their contraction, for it may be made without con them at all; for until the weight of th

FIG. 2.



Italian "lunge" position.

is transferred from the right to the le partially so, the tendency of their action w raise the left foot from the ground. It is hamstring and adductor muscles of the right are effective in restoring the pelvis to t position, acting on the shorter arm of a lever, head of the right femur forms the fulcrum an part of the pelvis and the vertebral column for

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arm. But the rapidity and force of the "backward swing of the body" (backward, that is, in the sense of being in the direction of the left foot, though in consequence of the feather edge position it is really a lateral swing to the left) are mainly effected by the muscles which bend the vertebral column itself to the left, especially the left erector spinæ and abdominal oblique. This lateral flexion of the vertebral column is a very strong movement, and by it the centre of gravity of the trunk from the pelvis upwards is raised and moved to the left.

No doubt the forces which effect the "backward swing of the body" throw additional strain on the quadriceps extensor of the right leg, on which also the chief strain of the remainder of the recovery from the Italian and of the whole recovery from the French lunge falls. This movement is common to the two recoveries and is effected by a push from the right foot backwards and upwards of the weight of the whole body. The push is mainly effected by the quadriceps extensor. But while in the French system the inertia of the weight of the trunk has to be overcome, this has been, or rather is, simultaneously being done by the erector spinæ, &c., in the Italian system. For this reason the recovery, as far as the upper part of the body is concerned, is quicker from the Italian than from the French lunge. In both cases the recovery must be slower than the lunge, for the weight of the body is raised in the recovery and lowered in the lunge. And masters of the art of fencing point out that safety from a riposte after the lunge depends more on the parry than on the recovery.

I have left unanswered that part of Mr. Dent's letter which refers to the position of the hands and arms, for a fair estimate of the rapidity and force with which any parry or cut can be executed requires a close and detailed explanation of each movement that effects it, and, as Mr. Dent does not give this, he does not show how his arguments apply to the Italian system. For instance, his statements about pronation and supination hardly concern the Italian system, where the parries are made from the shoulder-joint and supination is required in only one of them.

I am, Sirs, yours faithfully,

Blackwater, Hants, March 9th, 1896. E. D. RITCHIE.

"DEATH UNDER CHLOROFORM AT A DENTIST'S ROOMS."

To the Editors of THE LANCET.

SIRS,—Commenting in THE LANCET of December 8th, 1894, on a fatality from chloroform in a dentist's chair, I ventured emphatically to affirm that the cases of dental operation in which chloroform or ether could be considered indispensable were so rare that practically the use of these always dangerous agents in ordinary dental surgery was unjustifiable. I pointed out that nitrous oxide gas was *par excellence* the dental anæsthetic; that the cases in which it did not in every way suffice were highly exceptional; and I explained that much more could be done with it than seemed commonly supposed. The several deaths from chloroform during tooth extraction which have occurred since I expressed these opinions—opinions in entire accord with those you now put forth—have strengthened my conviction. I think this view will be supported by the bulk of dental surgeons as well as by the great majority of specialists in anæsthesia, and I believe they will go with me when I further declare that it is highly culpable to give chloroform in dental cases without clearly explaining to the patient or his friends the risk incurred, and that henceforth, after the warnings which have been lately published, administration of chloroform for tooth extraction in a dentist's chair—the most dangerous of positions—without every preliminary preparation and precaution usually taken in serious operations will, when death ensues, deserve a verdict of "Manslaughter" against the operator.

How serious is the mortality attending chloroform anæsthesia seems frequently forgotten. It is doubtful if that mortality has been decreased since, after collection of a great mass of statistics many years ago, Sir B. W. Richardson proved that deaths averaged not less than 1 in 4000 cases. Deaths continue to occur, and in the hands of highly skilled administrators, and as often as not in cases in which no organic disease is discoverable either during life or after death to account for the fatal issue. This is the practical fact, in spite of the teachings of Dr. Lawrie and of his strenuous contention—on which I express no opinion—that chloroform can be administered in every case with perfect safety. On the other hand, the mortality of nitrous oxide gas anæsthesia is so slight that the gas in skilled hands may be almost said to be perfectly safe. A few deaths have, it is true, taken place during its employment, but from these must be deducted a considerable proportion, not actually due to the effects of the gas, in which the operator, working by rule of thumb and knowing very little about the nature of complications likely to arise, has had no resource on appearance of untoward symptoms than to "run for the doctor," and the doctor on arrival has not infrequently found the patient dying or dead, perhaps with a foreign body in the glottis or suffering from some similar mishap which timely assistance might have averted. Deaths under gas do not commonly occur even from preventable accidents in the hands of ignorant operators; deaths from chloroform do frequently follow its use, even where the utmost vigilance and the highest skill are brought to bear. Whatever justification of its employment in other departments of minor surgery may be possible, chloroform is surely forbidden in the ordinary practice of dentistry.

I am, Sirs, yours faithfully,

Cavendish-square, W., March 23rd, 1896. HENRY SEWILL.

"DIRECT REPRESENTATION AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND."

To the Editors of THE LANCET.

SIRS,—The resolution reported by you in THE LANCET of March 14th as having been passed by the Council of the Royal College of Surgeons of England on the question of the representation of Members can hardly be said to reflect much credit on the collective intelligence of that august body. The Council is a standing example of the fact "that the union of capable persons is not always a sure guarantee of the definitive capability of the whole; by the union of persons of good sense it is possible to obtain an assembly which has no common sense." The resolution commences by taking for granted what is notoriously untrue—viz., that the Council represent the Members. Were this the case it is certainly the most curious kind of representation which was ever conceived; for not only have the Members no part in the election of their so-called representatives, but their proposals for the correction of this anomaly, which have been persistently pressed on the Council for twelve years past, have been until quite lately as persistently ignored by this truly representative body. As is generally known, the Council has at length submitted the chief of these proposals to a meeting of the Fellows, who were doubtless called to curse, but they remained to bless, and confirmed the principle of representation by an overwhelming majority. In this matter, therefore, the Council do not even represent their present constituents, the Fellows; they represent nobody but themselves. Since, moreover, it is notorious that there is now a strong minority on the Council in favour of this reform we may reasonably ask, How much longer is the opinion of a few ultra-conservative gentlemen to override that of the body corporate, whom they absurdly pretend to represent?—I remain, Sirs, faithfully yours,

March 16th, 1896. W. G. DICKINSON.

PREGNANCY AFTER VENTRO-FIXATION OF THE UTERUS.

To the Editors of THE LANCET.

SIRS,—The report of my remarks in the discussion of Mr. Mayo Robson's paper read at the last meeting of the British Gynæcological Society hardly expressed what I actually said. In Miländer's article[1] 74 cases of pregnancy after ventrofixation are recorded. Of these, 8 were pregnant for the second and 3 for the third time. Of the 74 women, 63 were delivered, 10 still are pregnant, and 1 died from conditions apart from the operation or pregnancy. Of the 63 parturient women, 54 were confined at full term, 3 prematurely, and 6 aborted. My own cases referred to only include those reported at the annual meeting of the British Medical Association in 1893, and not as stated at the Gynæcological

[1] Zeitschrift für Geburtshülfe und Gynäkologie, Band 33, p. 464.

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Society. Several other term pregnancies following ventrofixation may be found in current literature and some have not yet been published. As the discussion on Mr. Mayo Robson's excellent paper was adjourned I need not further detail these. One may, however, warrantably claim that a considerable number of women suffering from fixed retroflexion of the uterus have been not only relieved from all the attendant symptoms and disabilities, but have been restored to complete sexual health, permitting normal pregnancy, as the result of this conservative operation.

I am, Sirs, yours faithfully,

Grosvenor-street, W., March 23rd, 1896. LEITH NAPIER.

THE SCHOTT TREATMENT OF HEART DISEASE.

To the Editors of THE LANCET.

SIRS,—In common no doubt with many of your readers I have been greatly interested in the communications to your columns dealing with the Schott methods for the treatment of heart disease. I fear the cases and commentary communicated to THE LANCET of March 21st by Dr. Kingscote will hardly serve to dispel that absolute and obstinate incredulity of which he complains.

The impression conveyed from the brief account of the cases is that they might have improved considerably on quite ordinary lines of treatment. In most of the cases there is little evidence that the cardiac dilatation was due to organic valvular disease. We are not told that any of the patients had had acute rheumatism, and in no case is there mention of œdema, a symptom reasonably to be expected where failure of accommodation is at all extensive. Case 1 had albuminuria due, it was thought, to "defective circulation," a vague phrase, which might mean aortic disease or a tendency to chilblains. In this patient slight dilatation was detected with difficulty on one occasion and was promptly cured. In one case only a systolic bruit was noted. Are we to suppose that in the other cases auscultation revealed nothing abnormal? Percussion is the method of examination Dr. Kingscote mostly relies upon, and I fear he values this method far too highly, for he has seen a heart diminish its boundaries two inches in all directions in fifteen minutes. Would it not be safer to say that the area of cardiac dulness diminished?

I do not know whether the Roentgen rays have yet illumined the thorax, or whether the thoracic viscera could be so displayed, but pictures of such a heart, other than percussion charts, would be interesting. Dr. Kingscote tells us that the treatment acts by raising the blood-pressure in the arteries and so relieving the surcharged heart. If this be so it is difficult to understand why the treatment is of value in gout and chronic Bright's disease, where the hypertrophied heart dilates in consequence of the high arterial tension. I am, Sirs, yours faithfully,

Leicester, March 23rd, 1896. T. V. CROSBY, M.B. Lond.

"TORSION OF OVARIAN PEDICLE IN HERNIAL SAC."

To the Editors of THE LANCET.

SIRS,—I am interested to see that Mr. Owen has met with another case of hernia of the ovary with torsion of the pedicle. His case is similar to mine, except that the infant was eleven weeks old, whilst mine was six months. The brief record, to which Mr. Owen alludes, was merely an abstract of the paper which I read upon my case. I hope soon to put all the facts of this rare event on record.

I am, Sirs, yours truly,

C. B. LOCKWOOD.

Upper Berkeley-street, Portman-square, W., March 24th, 1896.

"THE CASE OF MR. LIONEL SMITH."

To the Editors of THE LANCET.

SIRS, — We beg to report that up to the present we have received the sum of £179 13*s.* 6*d.* on behalf of Mr. H. Lionel Smith. The amount is quite inadequate to meet the demands upon him for the support and education of his children, and his salary as district medical officer at Rorke's Drift is barely sufficient to provide for the needs of and wife. We need hardly recapitulate the harsh that Mr. Lionel Smith received at the hands of th ment of Western Australia; how, on being unjustly from his post, he gained two actions against the Gc and how he was finally beaten on a technical point to the Privy Council after ruinous litigation. It i to close the subscription list at the end of this r we hope that some others of your readers will come to the rescue of a man whose career has bee through no fault of his own.

We are, Sirs, yours faithfully,

JAMES F. GOOD
F. DE HAVILLAN

P.S.—We append a list of subscriptions recent

Mr. Launcelot Newton	£1
Dr. W. H. Brazil	?
C. E. C.	?

"SUBCUTANEOUS EMPHYSEMA OCC DURING LABOUR."

To the Editors of THE LANCET.

SIRS,—This accident, referred to in THE March 14th and 21st, is a somewhat rare one. when I was house surgeon of the Royal Matern Edinburgh, about 1874, attending a primipara in No ergot was used and the labour did not appe severe. I think the emphysema was not noticed or two after complete delivery, and it then e the face, neck, and thorax. It entirely subside four days. I showed the case to the late I Keiller, lecturer on midwifery, &c., Surgeon honorary physician to the hospital, and althou very large experience I think he said he had ne a case before. Since then I have never seen similar case. I am, Sirs, yours truly

R. MAXWELL MOFFAT, M.D., C.

Jersey, March 22nd, 1896.

POOR-LAW OFFICERS' SUPERAN BILL.

To the Editors of THE LANCET.

SIRS,—I am a Poor-law medical officer for taining a poor population of 5000 scattered o 15,000 acres, the nearest point being one furthest six miles. My pay averages about 6*d.* for a week's supply of medicine. The inc Schedule E deducts 8*d.* in the pound and the pulsory superannuation contribution will dedu in the pound. I am forty-two years of age to tables, my expectation of life is twenty-fou shall probably reach sixty-six. In return reduction of 6*d.* in the pound per annum for th three years I have a chance of one year's pe die in the meanwhile what benefit shall I or tives derive from this deduction from my alre pay? I am, Sirs, your obedient ser

March 23rd, 1896. A COUNTRY PAR

"ASSISTANTS."

To the Editors of THE LANCET

SIRS,—Perhaps your correspondent who d as "A Sorely-tried Principal," and who has ch vilify those of his professional colleague (through no fault of their own) unable to a of their own, forgets that there is another si What of principals who are petty snobs and of those who meanly grind their assistants tion wages? What of those who invariably if he bids fair to become more popular tha What of the man who, fixed in the therapeut his perhaps long-past student days, scouts as unpractical and new-fangled, himself *laudator temporis acti?* However, it wou to say that all principals come under the a would be to suppose that the thirteen a correspondent are a fair sample of their c

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are evidence of anything much else than an extraordinary lack of judgment on his part in choosing such specimens. Nor can I agree with "A Sorely-tried Principal" that the only remedy is to put assistants entirely at the mercy of their last principal's caprice.

I am, Sirs, yours truly,

ONE WHO HAS BEEN BOTH ASSISTANT AND PRINCIPAL.

March 24th, 1896.

To the Editors of THE LANCET.

SIRS,—If the letter by "A Sorely-tried Principal" in THE LANCET of March 21st will be the means of eliciting replies from other principals I hope it may also be the means of giving expression to the views of assistants "sorely tried" or otherwise. A history of an assistant's experience of thirteen principals extending over a period of ten years—if such an one is possible—would be interesting, to say nothing else, to the profession and public at large, and would further enable them to judge impartially as to which of the parties are being so sorely tried in this vale of tears. My point is that there are satisfactory, very satisfactory, and most unsatisfactory principals as well as assistants, and almost all the charges—happily the list is not a long one: intemperance, sexual incontinence, pugilistic proclivities, idleness, ignorance, lapses of memory, and bad language in public—brought against that estimable and unoffending class can with equal justice be laid at the doors of principals. Is it needful or necessary to adduce unpleasant statistics? It is not to be disputed that principals have more to lose than assistants in indulging in irregular conduct of any sort, and it is this position of greater freedom and less responsibility which partly explains, to my way of thinking, the erratic and eccentric behaviour of many of that brotherhood. But, given a genial and most pleasant of principals, an assistant has often—more often than not—to encounter the prejudice of patients, who regard him as a less experienced and skilful practitioner, which in the large majority of cases he unquestionably is. Of course, neither the public nor the principal can be exactly blamed for this; all the same, it adds one more burden to the load he carries, and this is a consideration which principals seldom, if ever, sufficiently regard. "A Sorely-tried Principal" has long disregarded excellent testimonials, but he is sure the only safeguard is a reference from the last principal. It is not easy to draw a distinction between a *reference* and a *testimonial*. If a reference is not a testimonial what else it can be it is difficult to imagine, unless that a reference is addressed in the first person and a testimonial in the third person constitutes an essential and eternal distinction. The chances of any error creeping in apply to both, and so long as human nature is what it is testimonials and references will every now and then mislead and miscarry. A reference *is* a testimonial and a testimonial *is* a reference, and nothing whatever is gained by maligning the one and glorifying the other.

I am, Sirs, yours truly,

POLLUX.

March 23rd, 1896.

PUERPERAL FEVER.

To the Editors of THE LANCET.

SIRS,—So long as pathogenic bacteria had not been recognised as the essential cause of fevers and communicable diseases (the essential cause, though perhaps requiring for their activity other and accidental conditions), the term "specific" was applied to these diseases rather as a figure of speech than as the expression of a scientific fact, and was intended rather to emphasise the remarkable uniformity of character than as involving any theory of the origin of infectious diseases. It was, therefore, without any inconsistency that a specific disease might be held to be set up by a plurality or diversity of causes, material or other, physical or moral, be communicated by direct infection, "caused" by insanitary surroundings as such or induced by fright, grief, or other emotion. We no longer believe in the "spontaneous origin" or "transmutation" of specific diseases—of small-pox arising suddenly from the mere sight of a case, or of scarlet fever "turning into" diphtheria; but it must be confessed that the retention in ordinary language of, and the sanction given by Act of Parliament to, the expression "puerperal fever" have greatly tended to perpetuate the old confused conception of the nature of the diseases incidental to the puerperal state. Puerperal fever was, I may say is, by many looked upon as a "specific" infectious disease arising from a multiplicity of different causes, including direct communication, various septic infections, mental emotion, and the occurrence of other specific diseases during, or soon after, childbirth. The strangest result of this confusion of thought and language is that when described as "septicæmia" or "puerperal septicæmia," the only strictly scientific definition of the disease, it ceases to be notifiable; and its existence may remain unknown to the medical officer of health until the death certificate comes in course of time under his notice, the infection having in the meanwhile been carried by the nurse or doctor to her next case. "Puerperal fever" is not, as the term is vulgarly used, an entity like scarlet fever, but includes a number of communicable and specific diseases having one circumstance or accident in common—viz., that the patient happens to be a parturient woman. Such persons are, for obvious reasons—the unusual facilities for absorption presented by the condition of the uterine cavity and vagina and the manipulations to which they are subject, the degree to which the blood is laden with effete matter from the involution of the uterine tissue rendering elimination less rapid, &c.—peculiarly susceptible to septic poisoning and feebly resistant to all forms of infection. The microbes of septicæmia must, of course, be derived from the outer world, but the putrescent matter serving as a vehicle or nidus may be introduced from without, as on the hands or instruments of the attendant or effluvia in the house, or may be provided by the putrefying discharges, retained membranes, or clots; and all such cases should be described and notified as puerperal septicæmia, not implying that they differ in any essential respect from surgical or other septicæmias, but in order to apprise the medical officer of health and other responsible parties of the special danger incurred by the attendance of the medical practitioner or nurse on other women in a like position. Parturient women are not less liable to infection by the true specific diseases—erysipelas, diphtheria, scarlet fever, small-pox, &c.—than the non-parturient, and are, indeed, more susceptible thereto. These diseases may assume a somewhat different character in consequence of the patient's condition, and may even tend to be accompanied by septic complications; still, they are none the less erysipelas, diphtheria, &c., and should not be indiscriminately described as forms of puerperal fever, but clearly distinguished from cases of septicæmia in which fibrinous exudations appear on the labial and vaginal mucous membranes, and even on the tonsils, though the resemblance to diphtheria is only superficial and accidental. To these cases since the introduction of the bacteriological diagnosis Widal has specially called attention, but in the *Zeitschrift für Geburtshülfe und Gynäkologie*[1] Bumm reports one of a woman who was delivered of twins by a medical man who was at the same time in attendance on children in the neighbourhood suffering from diphtheria. Three days later she had rigors and fever, followed by the formation of diphtheritic false membranes about the labia and vagina, and at the end of another week false membranes appeared in the throat and nose. Löffler's bacilli were present in large numbers in the vaginal membrane, but streptococci were absent. She recovered under the use of stimulants and three injections of antitoxin, each of which was followed by a fall of the temperature and general improvement.

I am, Sirs, yours obediently,

FITZ-EDWARD.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The District Provident Society.

THE Manchester District Provident and Charity Organisation Society held its sixty-third annual meeting recently and the audience listened to—what is somewhat rare just now—a tolerably cheerful report. It stated that the position of the society was satisfactory except as regards the sick fund, on which an unusual strain was put in the early part of last year; for the severe and long-continued frost caused much distress which led to some relaxation

[1] Band xxxiii., Heft 1, 1895.

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of the rules. During that period 2053 families were relieved at a cost of £743 10*s.*, and a large quantity of bedding and clothing was given away. The ordinary work of the society consists chiefly in dealing with distress from the sickness of the wage-earners or bread-winners, and relief may take various forms—e.g., a few weeks' help in money or food, a grant of bedding or warm clothing, a "recommend" for medical treatment, and the benefits to be derived from a stay at a convalescent home or other institution suitable to the case, the purchase of tools or stock-in-trade, the payment of club arrears, or of fares to other towns where employment is promised. Situations are not infrequently found for those out of work, and the society is also useful in making inquiries as to the history of people seeking relief from private persons. By its help many imposters are exposed, and many worthy people receive help. It coöperates, moreover, with the guardians of the poor and with the managers of the medical and other charities, and does much to prevent abuse of charity. During last year more than 56,000 cases of this kind were dealt with. The society has also a hospital at Southport for convalescents, and in addition it helps about forty old people, whose average age is seventy-one, with small pensions of 2*s.* 6*d.* or 3*s.* a week. The chairman appealed for more funds for this purpose. So far its objects seem to be altogether good. It seeks to help the deserving poor, "to prevent destitution and to arrest the descent of people into the ranks of pauperism, rather than to interfere with the work of the Poor-law authorities." The fact that the society works for the prevention of pauperism by helping the deserving ought to insure a good share of public support, but, as the chairman said, "popular sympathy seemed to run too far in the direction of the less deserving poor." It is evident that much good may be said for this society, but opinions may differ with regard to the merits of one of its offshoots. Some twenty-five years ago it originated the provident dispensary movement in Manchester. In theory it promised well and seemed likely to solve the question of the medical care of the poor above the rank of paupers. But from one cause or another abuses crept in which have led to its interfering unfairly and injuriously with many of the general practitioners, and to its originating a new variety of the abuse of charity by not sufficiently safeguarding the dispensaries against the admission of those who cannot reasonably claim a title to their benefits. This matter excites much interest in Manchester, and the ultimate issue will not be clear till all ranks of the profession are united.

The Manchester Medical Society: Professor Schuster on the Roentgen Rays.

A special meeting of the Manchester Medical Society was held on Wednesday evening last in the chemical theatre at Owens College to hear an address by Professor Schuster on the Medical and Surgical Aspects of Roentgen's discovery. After explaining the process and mentioning the present limitations of its utility he suggested that the work should be carried on in some systematic way. He thought that in a year or so every hospital should have the means of taking these photographs, and recommended that rooms should be taken in some convenient locality fitted up with all the apparatus necessary and put in charge of a properly qualified assistant, who would take photographs of all cases brought to him.

Owens College.

Mr. John Robinson, who has on previous occasions been a generous benefactor of the College, has just sent a donation of £500 to the treasurer to be applied towards the extinction of the debt on the new buildings of the medical school. At its last meeting the Senate appointed Mr. J. H. Ashworth, B.Sc., a former student of the college, junior demonstrator in Zoology.

Decrease in Attendance at Board Schools.

It was reported at the last monthly meeting of the Manchester School Board that there was a decrease in the number of children on the books compared with the corresponding period of last year of 2352. It was accounted for by the closing of six of the schools during the month by order of the medical officer of health on account of the prevalence of measles and whooping-cough.

Night Parade of Medical Staff Corps.

On Saturday week the second company of the Manchester Volunteer Medical Staff Corps held a night parade under th command of Surgeon-Captain Renshaw, for the purpose instruction in searching for wounded by night. The com pany marched to Old Trafford accompanied by one of the ambulance waggons and a store cart. Patients were distr buted about a field, and the company told off into bearers a dressing station party. The former sought for wounded w the aid of lanterns, a collecting station being formed. T dressing station party, under the command of Surge Captain Fairclough, adjutant to the corps, pitched a dress tent and prepared to build field kitchens for the patie brought in. After all the wounded had been attended the tent was struck, stores packed, and the company retur to headquarters, where they were dismissed. This par said to be the first of its kind in this part of the country, originated by Surgeon-Captain Renshaw, and its novelt well as the completeness of the arrangements, made it popular among the men, who have gained some prac knowledge of the kind of work that might be require active service.

March 24th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Honorary Degrees.

THE Senatus of Edinburgh University has resol confer the honorary degree of LL.D. upon Sir J. Reynolds, Bart., M.D. Lond., President of the Royal C of Physicians of London (as announced in your pr issue), and on Dr. Argyll Robertson, surgeon oculist Queen in Scotland and lately lecturer on Ophthalmo the University.

Medical Education of Women in Edinburgh.

Save at the colleges for the medical education of the end of the winter session was unmarked by any o ing function. At both the colleges for women this method of bringing the session to an end was not f Under the Scottish Association for the Medical Educ Women the students and their friends met in the College for Women, Minto House, Chambers-stre Sir Alexander Christison presided and Sir William R genial principal of the University, presented medal and certificates to the successful students. At th the proceedings Sir William Muir, in wishing the god-speed in their work, expressed his great gratif the success which had attended the medical edu women in Edinburgh and elsewhere. He also st it had given him great pleasure to be able to the University Court that they had such excelle modation in their new premises, which he unexceptionable and of the highest character Surgeons'-square School the students were addr lady medical missionary from China, who laid g upon the importance of thoroughly equipping the medical work in foreign lands as well as at home.

Appointment to the Prisons Board for Scotl

The Secretary for Scotland has appointed Dr. Fraser, Professor of Materia Medica in the U Edinburgh, to be medical officer to Her Maje Board for Scotland, in succession to Sir Dougla who recently resigned. It was hoped in some the Secretary for Scotland might have given ment to one of the younger and less busy me profession in Edinburgh, but, of course, no e otherwise be taken to the appointment.

British Institute of Public Health.

The annual congress of the institute is to year in Glasgow. The meetings are to July 23rd to the 28th, and the university au granted the use of the college buildings for th the congress. The work is to be conducted in th viz.: (1) Preventive Medicine; (2) Chemistry ing in their Relation to Public Health; and and Parliamentary. The following are some c suggested for discussion:—Construction, e management of hospitals for the treatmen diseases, treatment of outbreaks of infec influence of elementary schools upon the spre

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diseases, bacteriological investigations, country sanitary administration, treatment of sewage, river pollution, Sale of Food and Drugs Acts, &c. The institute is to be entertained by the Corporation of Glasgow, and the Lord Provost, Sir James Bell, Bart., is to preside at the meetings of the congress. It is intended, too, that the members shall be shown the various municipal works and that excursions to places of interest shall be arranged. The Lord Provost has issued a circular to various medical corporations and public health authorities, inviting them to appoint delegates to the congress, and a highly successful meeting is confidently anticipated.

Paisley Victoria Eye Infirmary.

The annual meeting of the subscribers was held on the 10th inst. Dr. Cluckie, the surgeon to the infirmary, reported that 2971 patients had been under treatment during the year, of whom 2921 were dismissed "cured"; there were 103 cases of cataract. The treasurer's report indicated a small balance in favour of the institution.

Glasgow University.

The winter session for the classes in the Faculty of Medicine closed on the 20th inst. During the present week the professional examinations are being held. The results will be announced on the evening of the 28th inst. The session at the extra-mural schools is to be continued for another week, the schools being rather later in commencing than the university session. Professor Joseph Coats, M.D. Glasg., has been re-elected Vice-President of the Students' University Union. The new President is Mr. W. Craig Henderson. Professor McCall Anderson has undertaken to conduct a special class for practical instruction in Diseases of the Skin for the students of Queen Margaret College. The class will meet during the summer session at the Hospital for Skin Diseases, Elmbank-street. Mr. Stanley Muir, B.Sc., has resigned his appointment as Senior Demonstrator of Chemistry in the University in order to act as chemical expert in connexion with a gold extracting process in Denver. He is to be succeeded by Mr. Wm. R. Lang, B.Sc. Another of the younger "dons" who has been attracted across the Atlantic is Mr. R. M. Wenley, D.Sc., who has been appointed Professor of Moral Philosophy in the University of Michigan. Principal Caird has been laid aside by illness during the last three weeks, but he is now improving, and will, it is hoped, shortly be able to return to his official duties.

The Schaw Convalescent Home.

The new convalescent home, the gift of Miss Schaw to the Glasgow Royal Infirmary, was formally handed over to the directors on the 21st inst. Mr. Warren, who represented Miss Schaw, requested the directors to accept the building and to use it as a convalescent home for patients who could be discharged from the infirmary wards. He also intimated that Miss Schaw, in addition to the £40,000, the original cost of the home, wished to give a further sum of £7000 to form the nucleus of an endowment fund. The Lord Provost, Sir James Bell, Bart., on behalf of the directors, expressed his appreciation of the valuable gift and pointed out the great service the home would render as an adjunct to the infirmary. Speeches were also delivered by Mr. Hugh Brown, the chairman of the house committee, and by the Rev. Dr. Donald Macleod. The home is pleasantly situated in the village of Bearsden, about three miles from the city; the railway makes it easy of access.

New Hospital for Rothesay.

It has been decided to erect a cottage hospital in Rothesay, and a site has been obtained for the purpose from the Marquis of Bute. The expense, it is hoped, will not exceed £2000.

Gaelic Society of Glasgow.

At the annual dinner of the society on the 20th inst. the chair was taken by Dr. Campbell Black, whilst the toast of "The Medical Profession," proposed by Professor Jones of the University, was responded to by Dr. Cumming Grant.

Glasgow Medico-Chirurgical Society.

At a meeting of this society on the 20th inst., the President, Dr. W. L. Reid, delivered an address on the History, Forms, and Theories of the Vaginal Speculum. Dr. Reid traced the existence of the speculum in some of the earliest medical writings and discussed the various modifications which it had undergone down to the present day. The address was illustrated by a large number of lantern views and by the exhibition of various forms of specula showing the character the instrument has assumed in the different phases of its evolution. A vote of thanks was heartily accorded to Dr. Reid on the motion of Dr. H. C. Cameron.

Hospital Sunday Fund, Glasgow.

The sum collected for this year amounts to £4069, an increase of £428 on the previous year. At the annual meeting on the 17th inst. one of the clerical speakers, referring to the fact that some churches failed to make a collection on Hospital Sunday, made the suggestion that the Lord Provost should issue a notice requesting Christian people not to attend these churches on that day. This is a new proposal for the practice of boycotting.

Low Death-rate at Paisley.

In the report of the medical officer for the week ending the 16th inst. the death-rate for the borough was reported as 12·9 per 1000, whilst the rate in the corresponding week last year was 41·4 per 1000.

Aberdeen Police and Railway Ambulance Classes.

On Monday night the medals and certificates gained in connexion with the police and railway ambulance classes conducted by Dr. J. Scott Riddell, were awarded. Mr. Duguid, station master, Joint Passenger Station, presided, and Bailie Taylor made the presentations. Of fifty-four who attended examination, two gained silver medals, six got bronze medals, and thirty-four secured certificates. Chief Constable Wyness then presented the lecturer with a valuable microscope and case.

Proposed Destruction of Houses in Harris.

In the House of Commons on March 17th the Lord Advocate, replying to Mr. E. B. Baillie, said that the condition of the crofters' and cotters' houses in the island of Harris had been reported to the Secretary for Scotland, but he does not at present propose to take any action.

March 24th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Pensions for Poor-law Medical Officers.

THE Bill to render compulsory the payment of superannuation pensions to Poor-law officials, which was introduced in the House of Commons on the 18th inst., and commented upon in your columns last week, will have solid Irish support. In reply to a statement of Mr. H. Plunket, that there was a general desire among Irish Poor-law officers to have the benefit of the Bill, it was intimated that there would be no difficulty about including Ireland under its operation, Mr. Chaplin stating that if it met with the approval of the Irish members the Government would raise no objection. This invitation to Irishmen to support the measure was responded to by Mr. Johnston and Sergeant Hemphill as well as by Mr. Lecky. The Bill was ultimately read a second time and referred to the Standing Committee. An agitation in favour of the compulsory payment of pensions to Poor-law medical officers in Ireland has long been maintained. The opportunity has apparently come at last for medical men connected with the Poor-law to join their brethren in England and obtain redress of a long recognised and sorely felt grievance.

The late John St. Claire Gunning, L.R.C.P. Edin., L.R.C.S.I.

I regret very much to have to announce the death of Mr. Gunning, which took place at his residence, Enniskillen, on March 17th. He had been in failing health for a considerable time, and was obliged to resign his appointment as medical officer to the Enniskillen Union Workhouse and assistant surgeon to the County Fermanagh Infirmary in the beginning of this year. In the former institution he had introduced many improvements in the interest of the poor. Mr. Gunning was a man of the very greatest popularity, and for a lengthened time he enjoyed the principal practice in Enniskillen, and it was owing to the constant strain of hard work that his health some years ago began to yield and that the nervous symptoms which culminated in paralysis set in. The deepest regret is felt in Enniskillen at Mr. Gunning's death, as he and his family had been so long connected with the place, and personally he was beloved by all sections of

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the community. Mr. Gunning was buried on March 19th in his native place, Enniskillen.

The Detention of Lunatics in Workhouses.

At an inquest held on March 20th in reference to the death of a female lunatic in the Belfast workhouse the coroner, in summing up, stated that the case showed a series of gross illegalities. In the first place the woman was sent very properly to the district asylum as a dangerous lunatic on the certificate of a medical man sworn before two magistrates. After being there two years she was removed to the workhouse, to which it was never contemplated at any time that dangerous lunatics should be sent. There she was kept seven years, every hour of which she had been illegally detained. It was, the coroner said, illegal to send her to the workhouse and it was more illegal still to apply restraint, because they had no power in the workhouse to take that course. Further, while in the district asylum half the cost of her maintenance was borne by the Consolidated Fund, but the moment she was illegally transferred to the workhouse she became chargeable to the ratepayers, and for the past seven years they had been keeping the woman in the workhouse and paying for that illegality £70. The jury found that the woman died from nervous exhaustion in the lunatic department of the union workhouse (Belfast). They strongly protested against the illegal system herein disclosed of a dangerous lunatic like the deceased being transferred from the district asylum to the workhouse, which was never intended for the detention or treatment of such persons, and they requested the coroner to forward a copy of this verdict to the Local Government Board, the Chief Secretary for Ireland, and the guardians.

Death of Edward Ashley Spiller, M.D. R.U.I., Surg. R.N.

Great regret was felt amongst Dr. Spiller's numerous patients in Belfast when it was announced that he had died at Haslar Hospital, Gosport, on March 23rd. The son of a well-known Belfast man, Dr. Spiller was educated at Queen's College, Belfast, and graduated M.D. of the Royal University in 1885. He soon after entered the Royal Navy, and during the greater part of the time since he has served abroad. Dr. Spiller had been for some time in poor health, and only a few weeks ago, in returning from Belfast to Haslar, he caught cold, and this brought on a relapse of intermittent pneumonia, from which he died. Dr. Spiller was personally very popular, and the utmost sympathy is felt for his bereaved relatives.

"*Home, Sweet Home.*"

At Belfast on March 31st, at eight o'clock, Mr. W. Kaye Parry will deliver a lecture in the Ulster Minor Hall on the "Seamy Side of Home, Sweet Home." The Lord Mayor of Belfast will take the chair and the lecture will be illustrated with lantern slides. Reference will be made to the efforts of the Plumbers' Company to improve the plumbing trade and to the registration movement.

March 24th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Precautions against the Introduction of Tuberculosis into France.

A DECREE signed on the 14th inst. renders compulsory the submission to the tuberculin test of all bovine animals imported into France from foreign countries. Those arriving are therefore detained at the frontier for forty-eight hours in order that the test may be applied. In those cases where the characteristic reactions denoting the existence of a tuberculous process are revealed the incriminated animals are, after being marked, refused entrance into the country unless the owner gives his consent to immediate slaughter. The tuberculin test is not applied to cattle which are formally declared to be imported for slaughtering purposes. In these cases, however, proof must be forthcoming within fourteen days that the beasts have been killed.

A Centenary Celebration.

On Saturday last, the 21st inst., the members of the Société de Médecine de Paris met at their rooms in the Rue de l'Abbaye to celebrate the hundredth anniversary of the foundation of their corporation. Originally christened the Société de Santé, it is claimed for this association that it has done more to raise the status of the profession in France and to combat quackery than any other society. Dr. Duroziez gave a historical *résumé* of the society, and then Dr. Motet read an elaborate eulogy of the distinguished neurologist, Duchenne of Boulogne, to whose clinical acumen and indomitable perseverance we owe the recognition of pathological entities of such diseases as locomotor ataxy, progressive muscular atrophy, &c. I remember how the late regretted Professor Ball used to recall the spectacle of Duchenne—an unknown practitioner with no status whatever in the faculty—visiting patient after patient in the wards of the general hospitals, collecting materials for the magnificent legacy he was destined to bequeath to suffering humanity. The centenary celebration culminated on the 22nd inst. in a banquet, at which England—or should I say Scotland?—was represented by Dr. Ogilvie, who appears to have made a "hit" when he remarked that the land o' cakes had never made war against France. A good deal of *chauvinisme* seems to have found vent at this banquet, and the favourite of the gathering was the private physician of the Prince of Oldenburg, who, according to the *Temps*, "a su, en quelques paroles, porter au plus haut point l'émotion patriotique de l'assemblée." Dr. Viger, Minister of Agriculture, acted as chairman of the banquet.

Tuberculous Parrots.

A few weeks ago MM. Cadiot, Gilbert, and Roger submitted to the consideration of the Société de Biologie certain researches in proof of the human origin of tuberculosis seen so frequently in parrots. The most frequent lesions are tumours of the skin and mucous orifices (eyelids, nostrils, commissure of the beak, tongue, &c.). Since the bird enjoys in these latitudes few opportunities of coming in contact with other birds, and as his chief companion is man, it became an interesting problem to solve whether the disease was gallinaceous or human tuberculosis. The above-mentioned authorities pronounced in favour of the human origin of the disease, relying on experiments which are sufficiently conclusive. Almost synchronously with these experiments Professor Strauss of Paris had the opportunity of making a post-mortem examination of two parrots who had succumbed to tuberculosis and of which one had been reared by a man who had also died from phthisis. The bacilli collected from these necropsies when inoculated into the guinea-pig, the rabbit, and the dog provoked in these animals the same lesions and symptoms as human bacilli (Koch's). Those ladies who deem life worthless without the society of a parrot may well, then, to reject "pollies" that present suspicious appearances about the beak, eyelids, head, &c. Such birds should be killed without delay, for they might prove to be the means of disseminating a disease which is already but too common as a plague of humanity. That domesticated birds other than parrots can communicate tuberculosis to their human friends would seem amply proved by the observation related quite recently to the Société de Biologie by Dr. Durante. A woman aged about one years had a lupoid growth of the second phalanx of the thumb, the result of a violent peck given by a tame bird. The family history was good as regarded tuberculosis. The bird had been ill for some time and ultimately died of an unknown disease. Besides the digital lesion subcutaneous secondary growths were discovered in the forearm and in other parts of the patient. These were removed and inoculated into a guinea-pig. Sections of the nodules showed typical tubercles of the areolar tissue, but it was found impossible to demonstrate bacilli. The inoculated guinea pig died from general tuberculosis. Its spleen was inoculated into (among others) which, killed a month later, was found to be healthy. Finally a rabbit which examined post mortem, also showed presented tubercles in all its viscera.

The Probable Income of the Future French Universities.

The *Bulletin Médical* of the 18th inst. states that the receipts of the different Faculties remain as they are, these same Faculties, transformed into universities, will be shortly, will possess the following incomes:

	Francs per annum.		
Paris	646,000	Nancy ...	...
Dijon	131,000	Rennes ...	...
Lyons	128,000	Aix ...	...
Bordeaux	105,000	Poitiers ...	...
Montpellier	86,000	Caen ...	...
Lille	83,000	Grenoble	
Toulouse	42,000		

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It will be seen that several of these incomes are slender indeed, and it is evident that some of the university towns will have to provide further funds unless they wish to court educational failure and ultimate disaster.

Dr. Brouardel, Professor of Legal Medicine at, and Dean of, the Paris Faculty, has been reappointed for a further term of three years to the latter responsible post.

March 24th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The German Balneological Association.

THE annual meeting of the German Balneological Association was opened on Feb. 6th in Berlin, Professor Liebreich presiding. At the first sitting Dr. Schuster (Aix-la-Chapelle) read a paper on the Treatment of Chronic Myelitis by Hot Baths, a method long used by the Japanese medical men and introduced into Europe by Professor Baeltz of Tokio in Japan. Dr. Schuster has seen an obvious decrease of the paralyses and the subjective symptoms when this method was employed. Professor Winternitz of Vienna said that he also preferred hot baths to tepid ones in diseases of the central nervous system, but the number of cases treated was too small to justify a decided opinion on the efficacy of the treatment. Dr. Marcus of Pyrmont discussed the etiology of Hemicrania, a disease which is, according to him, dependent on the weather and usually makes itself felt when the atmospheric pressure becomes variable. A continuous pressure, whether high or low, does not produce attacks, but they begin at once whenever a change of weather is imminent. Dr. Marcus, who is himself a sufferer from hemicrania, said that he is able from his bodily sensations to predict alterations of the weather. The good effects of travelling or change of residence are also founded on climatic influence.

The German Surgical Association.

The twenty-fifth annual meeting of the German Surgical Association will be held this year from May 27th to 30th, the usual date being the week after Easter, and there will be a preliminary conversazione on the evening of May 26th in the recreation-hall of the Reichstagsgebunde. At the first sitting Professor Esmarch will read a paper on the Value of Artificial Anæmia in the Surgery of the Extremities. Papers will also be read by Professor Bruns on the Modern Treatment of Enlargement of the Thyroid Gland, by Professor Koenig on Local Tuberculosis, and by Professor Wölfler on Intestinal Surgery. The proceedings will terminate with a garden party given by the Berlin Surgical Society at the garden belonging to the well-known Kron-Theater.

The Psychiatrical and Neurological Society of Berlin.

At an ordinary meeting of this society, held on March 9th, Dr. Köppen showed a man affected with what has been termed "Gedankenlautwerden." This is a state of mind where the patients hear their thoughts repeated before giving verbal utterance to them, and in the act of writing they seem to hear someone dictating to them.

Compulsory Vaccination.

In the Imperial Diet the introducers of a proposal that compulsory vaccination should be abolished have met with a decided check, State-Secretary von Boetticher, who replied on behalf of the Government, having called attention to the beneficial effects of compulsory vaccination in the German army.

A Medical Peerage.

Professor Leyden has received a title of nobility.

March 23rd.

ROME.

(FROM OUR OWN CORRESPONDENT.)

The Butcher's Bill in Abyssinia.

WE have now a fairly complete account of the losses sustained by the Italian troops on the disastrous day of Abba Carima. There took part in that engagement five generals, of whom two were killed (Da Bormida and Arimondi), one was taken prisoner (Albertone), and two returned to headquarters (Baratieri and Ellena). Of the seven colonels engaged, two were killed (Airaghi and Romero), one is a prisoner (Nava), and four have returned (Valenzano, Brusati, Stevani, and Ragni). The commanding officers of battalions (*comandanti di battaglioni*) were twenty-four in number, and of these fifteen are dead and one (Gamerra) is a prisoner. The total of Italians who went into action was 9000, of whom only 3000 have returned many of them wounded, while not more than 400 are prisoners; 5600 Italians were left dead or severely wounded on the battlefield. With the 4400 native troops similarly accounted for, the loss in actually killed out of the total of white and black regiments engaged can be little under 10,000 men.

The Medical Officers Engaged.

Much comment has been evoked by the silence in which the services of the army medical staff at Abba Carima were passed over in the eulogies pronounced in the Chamber of Deputies over the fallen of that day. "Tutti fecero il loro dovere" (all did their duty) said the Minister of War, but a word of recognition was certainly due to the surgeons who succumbed under fire in the discharge of their professional office. The Italian artillery, mostly served by the Messina regiment, did deadly execution in the enemies' ranks and the men remained at their guns even when the Abyssinians had come to close quarters and the fight was prolonged hand to hand. The conduct of the medical corps during this heroic episode of the day was, by the testimony of the surviving combatant arm, beyond praise, their services to the wounded under extreme personal danger having been continued up to the last. It is estimated that fifty army surgeons were killed or left for dead on the field, and some reference to the fact, it is urged, was assuredly to be expected from the parliamentary eulogists of the soldiery. This is not the first time (it is a military critic who reminds me) that the brave conduct of the Italian medico-military arm has been ignored in Abyssinian warfare. Captain Gasparri, a Roman graduate of medicine, fell gloriously at Dogali nine years ago when relieving the wounded under fire, and in the same battle Lieutenant Ferretto, also on the medical staff, was killed in the discharge of his duty. Rather more than two years ago, at Coatit, the heroism of the surgeons was conspicuous, and in December last, at Amba Alagi, as recorded in THE LANCET, young Dr. Jacopetti, after doing his best and last for the wounded, met his fate not far from Major Toselli, who commanded the ill-starred column, savagely stoned to death by the victorious Abyssinians. Yet but for the press, it is indignantly remarked, not one of these gallant medical officers would ever have been signalised to their countrymen by anything that was written or spoken, officially or in Parliament, by the panegyrists of the Italian troops.

The Health of the Pope.

His Holiness has had a recurrence of the unfavourable symptoms culminating in the prolonged syncope to which I referred a fortnight ago. His nights have been disturbed by insomnia, leaving him in the morning so unrefreshed as to render advisable the suspension of the out-door exercise he had been taking every afternoon in the Vatican gardens. He has also had to be more sparing than is his wont in giving audiences, except on occasions of prime necessity or to those immediately associated with him in the transaction of business. His body physician, the Commendatore Dr. Lapponi, is in attendance, at least for the present, morning and evening.

The Red Cross Service at Abba Carima.

Five mountain ambulances were engaged in this sanguinary conflict and included Ambulance No. 2 under Dr. Mazzioli, No. 3 under Dr. Spinedi, No. 5 under Dr. Viscardi, No. 6 under Dr. Caccini, and No. 7 under Dr. Bordano. Nos. 2 and 3 were on the field of battle and had to be abandoned in the confusion of the Italian rout, all their *matériel* and baggage falling into the hands of the enemy, the ambulances themselves being overturned and only part of the *personnel* succeeding, with great difficulty, in making good an escape to Adi Ugry. Nos. 5 and 6 had to fall back on Adi Caie and are by this time, it is believed, at Massowah. Of No. 7 it is known that it picked up 200 wounded, among whom were General Ellena and sixteen officers. It reached Massowah, after a five days' perilous journey, with a small residue of provisions and with a handful of mules laden with wounded. Its *personnel* was but scantily provided with escort and so was obliged to pursue its march by night in order to lessen the

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probabilities of its being assailed by King Menelik's troops. General Lamberti speaks highly of the skill and courage with which its retreat was conducted, while every possible care was bestowed on the wounded. At Adi Ugry the Red Cross Infirmary under the charge of Dr. De Castro had picked up and placed under treatment more than three hundred wounded. This was on the 3rd inst., about forty-eight hours after the Italian defeat when the roads were thronged with stragglers, many of them in the last extremity from exhaustion or hæmorrhage. Dr. De Castro had met them *en route*, chiefly at Adigualà. The mountain hospital No. 29 established at Asmara has trebled the number of its outposts for the wounded, carrying the number of these stations up to 150. It is now reinforced by another mountain hospital (No. 28) which can accommodate another 150 patients. We are still without news of the mountain ambulances, Nos. 8 and 9, which set out on the 9th inst. for the Abyssinian camp to attend to the Italian wounded.

Dr. Baccelli.

Dr. Baccelli, who filled with such acceptance the post of Minister of Public Instruction in the late Cabinet, has now resumed the chair of clinical medicine, with which he has been so long and so honourably associated, in the Roman University. Primary, secondary, and academic education will undoubtedly lose by this step; but clinical teaching will no less undoubtedly gain.

March 21st.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Cholera News.

THERE has been only one new case of cholera during March in Alexandria, but during the month of February there were 16 admissions into hospital, of which 10 resulted in death. There were also 33 deaths in private houses, giving a total of 49 new cases in twenty-nine days. The disease has been since January entirely confined to Alexandria and to the lowest quarters of that town. The cases increased in number a fortnight ago, but this was apparently due to the fact that a number of young medical men were sent there who, by a house-to-house visitation, brought to light a few cases which would perhaps not otherwise have been reported. Mr. Innes, who is working at cholera in the bacteriological laboratory at Alexandria, has contracted a slight attack of the disease. Professor Koch, who is now in Upper Egypt, has suggested, it is understood, that a modification of Dr. Haffkine's virus should be manufactured and employed at Alexandria. Quarantine is still imposed against Egypt by Greece and Turkey including Palestine. This disadvantage, coupled with the unsatisfactory state of the Turkish dominions, is impelling the English and American visitors every week towards Italy and France.

Imported Measles.

Two young women this winter on two different ships have developed measles on their journey from London to Egypt. In each case the disease spread to fellow passengers during the incubation period, and these in their turn infected others before the appearance of the rash, and one patient already travelling for his health died partly from this complication. Since the disease reached Cairo there have been a few cases among the English residents, a few in the children at the barracks, and again a few among natives in two villages in the Delta. In Cairo the infectious hospital accommodation has proved of great service and the Government disinfecting apparatus is every month becoming more useful.

Luxor Hospital for Egyptians.

A new report has just been issued of this hospital, which was opened by the late Khedive in January, 1891. The hospital is not supported by the Government, but is dependent upon the subscriptions of visitors to Luxor and Assouan, Mr. John Cook supplying every year the necessary deficit. There are twenty-six beds open all the year round, and the total number of in-patients last year was 297, of whom only three paid anything for their maintenance. During the year 6431 out-patients were treated, including 1068 women; and it is well to note that the bulk of the out-patients come in the summer months when the English physician This serves to show that a good native medical command a certain popularity. Some of the cases included gunshot wounds caused by shot from muzzle-loaders, and contusions from the he shod sticks carried by peasants. There were ten vesical calculus in patients under ten years of ag half the medical cases were suffering from ankylo One patient was a merchant in Khartoum during and had received terrible injuries from the Amongst other wounds he lost one eye from a s had a bullet in the cheek breaking the malar bon throat cut from side to side, the trachea being se one shoulder-joint opened by a sword, one lung a ribs injured by another bullet, one hand fractured of a shell, and other lesser injuries. He was thro the walls as dead, but lived to return to his home and then to come to Luxor on account of bronchitis that the hospital finances are well watched I ma that a liberal diet is given to in-patients for the da 4*d.* per head. The medical staff consists of Mr. and Muhammad Effendi el Hakeem.

Cairo, March 4th.

MEDICAL TRIAL.

QUEEN'S BENCH DIVISION, HIGH COURT OF

(Before Mr. Justice HAWKINS.)

KITSON *v.* PLAYFAIR AND WIFE.

THIS was an action brought by Mrs. Arthur Kitson again Playfair and his wife for alleged libel and slander.

Mr. Lawson Walton, Q.C., and Mr. Tindal Atkinson appe plaintiff; Sir F. Lockwood, Q.C., M.P., and Mr. C. W. Mat defendants. At the commencement of the case Mr. Just suggested that as the matter would be an exceedingly pa everybody concerned, the advisability of trying it in pr consultation between counsel it was decided to try the ca Mr. Walton stating that his client was anxious to face a court. The statement of claim set out that the def charged plaintiff with unchastity. Defendants denied p the slander and pleaded privilege.

Mr. Lawson Walton, in his opening statement, said that one which presented many painful features. It was an married lady, who sought to escape from a charge which re her honour. The plaintiff complained that after she had self under the professional care of the defendant not only an erroneous inference from her symptoms, but he also bro seal of professional confidence by betraying to a third pers which he had gained, and made a charge against the plain had been guilty of adultery. The defendants did not n suggestion that plaintiff had committed adultery, for no p cation had been set up, but the defendants had pleaded t munications complained of were privileged. The answer would be that no privilege could attach to statements made man as to matters which came to his knowledge in his prof city. Any information which a medical man thus receive absolutely secret. Mrs. Kitson was an Australian lady Mr. Arthur Kitson, a brother of Sir James Kitson; and the wife of Dr. Playfair, was sister to Sir James Kitson ar Kitson. Dr. Playfair was the well-known obstetric phy West-End. Mr. Arthur Kitson had acted as his fath Australia, and he there married the plaintiff, who was his position. For certain reasons Mr. Kitson's agency termi James Kitson allowed Mr. Kitson £500 a year. The plaintif her husband in Australia, and they had two children, bu had great maternal troubles. Towards the end of 1892 the to England, her husband remaining in Australia. Shor left Australia Mrs. Kitson had some maternal trouble, ill during the voyage, although she was not attended b man. When she arrived in this country she was still certain symptoms, she was met by a lady deputed Kitson who was to find her accommodation, and after th partly in London and partly at one or two places in Whilst visiting some members of the Kitson family towards the end of 1893, the lady's sufferings increase acute stage later, when she consulted a Dr. Williams. formed the opinion that she was suffering from a the womb, but he was not quite clear as to what it w fair's name came up, and she mentioned that Dr. Pl brother-in-law, when Dr. Williams suggested that he sh in. He came and examined her condition, and express that her illness was a grave one. On Feb. 23rd, placed under chloroform, and an examination was was regaining consciousness she heard the end of a Playfair's—"Well, it is very like it: I do not know anyt She may have been up to some pranks." She was ag chloroform. When she came to the second time Dr. Pl She wrote to Dr. Playfair asking for an explanation of protesting her innocence. She entreated Dr. Playf nounce an opinion adverse to her until her husband h Dr. Playfair replied that it would be advisable for h illness an excuse for leaving London, otherwise he shou tell his wife the conclusions which he had arrived at again wrote saying that she was at present unable self, but "the right person was the cause." D reply, said that the only way for her to clear showing that her husband had been in England withi

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In the course of Dr. Playfair's attendance upon plaintiff, said counsel, he had drawn moral inferences and had assumed the position of a moral inquisitor. Why was he to violate the sacred obligation that was placed upon a medical man, and that for reasons purely personal? The obligations of truth were relative and not absolute. Dr. Johnson, the greatest moralist of all time, had said that if a man were asked by a would-be murderer which way his victim had gone it would be that man's duty to direct him wrongly. Cardinal Newman himself had said that there were circumstances in which it would be right to resort to falsehood. This lady was placed in the position that if she did not say that her husband had been in this country within a certain time her honour was gone, and under physical suffering in the interests of herself and children she resorted to evasion. On March 11th she wrote: "How am I to act? I am bound by my oath. Ought I to break it to you, and would you let it rest only with you?" To this Dr. Playfair replied that he could not be satisfied with vague and wild talk about oaths, &c., and that if it was not at once proved to him that her husband had been in England he would inform his wife and let her act as she pleased. He would only advise her to keep the facts to herself and do nothing. He would use his own discretion as to what use he should make of the knowledge that her husband had been in England. In her next letter she said, "I regret the tone you use about oaths. When a man is in hiding and flying from justice and you are the only human being who he knows will strain every nerve to save and shield him and who is anxious that his people shall never know and binds you to keep faith, you are apt to do many things that people whose lives run smoothly would never dream of." She again protested her innocence, and said she could account for every moment of her time "except the evening she spent with a broken-hearted sailor," and added that she would send Dr. Playfair's letter to her husband. To this Dr. Playfair replied that he would postpone speaking to his wife to give her an opportunity of answering his question in a plain, straightforward manner. Further correspondence followed, and on March 15th the plaintiff telegraphed, "Am I too late to say yes?" Dr. Playfair, however, had told his wife, and he wrote to say that it was now her husband's duty to clear his wife of the inevitable suspicion which his surreptitiously coming to London had caused. Mrs. Playfair wrote to Sir James Kitson, and he wrote to the plaintiff that if she remained in England the allowance which he had made to her would be discontinued, but if she returned to Australia he would make her an allowance. This offer she refused, and she sent to her husband to ask him to come to England. In September, 1894, Mr. Arthur Kitson arrived in England, and he at once wrote to Dr. Playfair and avowed his intention of taking the part of "as good, true, and honourable a woman as it had ever been his lot to deal with, be the others whom they may." In the correspondence which ensued Mr. Kitson supported the suggestion that Mr. Kitson had visited England unknown to his relatives, and further suggested that Dr. Playfair might have made a mistake with regard to his wife's symptoms. Dr. Playfair replied that the facts were simply these. He was called professionally to see Mrs. Kitson, and found her suffering in a manner that it was impossible that it could have been of a legitimate character, her husband being in Australia. He had pressed her over and over again to say if Mr. Kitson had been in London, and could never get a plain answer. Under these circumstances he had communicated the matter to his wife, and he believed that she had communicated it to James and to nobody else. The husband inquired by whom the medical man was called in to attend his wife, and if by herself was it not a strong argument to show that she had nothing to fear. He also said that he had it on the highest medical authority that a mistake might have arisen, and why not give the patient the benefit of the doubt, at least for a time. Dr. Playfair replied that he did not remember whether he was called in by Mrs. Kitson or by her medical man. In this case no mistake was possible even to the least experienced, but he submitted the matter to an expert and his report was most conclusive. The learned counsel contended that there was a mistake by Dr. Playfair, and that this mistake had inflicted upon the plaintiff the most hideous consequences. The case was no doubt exceptional, but it was not without precedent. Dr. Playfair might, upon reflection, have some doubt in his mind; he might have said that he had made a mistake. If he said this now the case need not last a moment longer.

Mrs. Arthur Kitson, called and sworn, said in answer to Mr. Lawson Walton that she resided at 29, Perham-road, West Kensington, with her husband. She was English by birth, but had lived in Australia. She married Mr. Arthur Kitson on Aug. 4th, 1881, in Australia. The defendant, Emily Playfair, was her husband's sister. Her first child was born on June 2nd, 1882, and she had considerable trouble in connexion with the birth of that child. Her second child was born on May 11th, 1884, after which she was in very bad health, and was attended by several medical men for uterine affections. After this she had several miscarriages. She left Australia in 1892. About the end of September that year, and before leaving for England in October, she had suffered from a miscarriage. She had no medical attendance on that occasion. She last saw her husband about the end of September. On the voyage the state of her health was very low. She arrived in England on Dec. 2nd, 1892, and went to live at Margaret-street, Cavendish-square. She afterwards, on the suggestion of her husband's family, went to live at Bournemouth. While there she was attended by a medical man. She remained at Bournemouth about six months, and afterwards went to live at Longridge-road, South Kensington, where she remained, with the exception of time spent in visiting members of her husband's family in Yorkshire, till the end of November. She continued to suffer from ill-health. She then went to live at 8, Russell-road, South Kensington, and afterwards at Almaterrace and Allan-street. At the beginning of January, 1894, she became very ill and sent for Dr. Muzio Williams, who examined her thoroughly, and told her she was in a very bad state indeed, and that she did not understand how ill she really was. It was Dr. Williams who first suggested that Dr. Playfair should be sent for. The latter saw her first about the middle of January. He examined her, and said it was an aggravated case of influenza, and that she should be sent to a home or have a nurse to attend her. When Dr. Williams went out of the room Dr. Playfair said he was very sorry to see her in such a low state, and asked her what was worrying her, to which she replied that she was worrying about Arthur. He said, "Why?" She said, "He is in a dreadful state through not getting his money, and he says he is starving." He replied, "Let him. He allowed you to starve. It is the best thing that could happen." She said, "Oh, doctor, I can't do that. If they would only send his money in time it would be all right. He says if he does not get his money he will have to blow his brains out." Dr. Playfair then said, "You must try and get well and take care of yourself for the sake of your children." Dr. Williams then came in. Witness told Dr. Playfair that she did not see how she could manage about the children if she went to a home. During the time of this conversation she felt lightheaded. She did not see Dr. Playfair again till the day of the operation on Feb. 23rd. Prior to this she was very ill and lost blood to an excessive degree. Dr. Playfair said it would be necessary to examine her under chloroform. This was administered. On recovering consciousness witness heard Dr. Playfair say, "I don't know what else it can be. I know very little about her. She may have been playing hanky-panky." Dr. Williams said, "I do not think it can be anything like that. She has submitted to every examination and been perfectly candid." Witness said she then struggled up and said, "Oh, Dr. Playfair, for God's sake let me go now if you think there is anything wrong." He then patted her and said, "There, there, my dear, it's all right. We think it is a cancerous growth." He said to Dr. Williams "Give her some more." Dr. Williams then dabbed the handkerchief or whatever it was on her face and she lost consciousness. When she recovered consciousness Dr. Playfair had gone. She subsequently wrote to her husband at different addresses in Australia telling him of Dr. Playfair's accusation.

Mr. Lawson Walton then examined the witness with regard to the letters that had passed between herself and Mrs. Playfair. Continuing his examination, Mr. Walton asked her if there was a word of truth in the accusation that during the year 1893 she was ever untrue to her husband. Witness: Not one word.

Cross-examined by Sir Frank Lockwood: She said that she had communicated her intention to come to England to her husband's family before she started. She was very kindly received by Mrs. Playfair and the whole of her family and became intimate with them. Her husband provided nothing towards her support in England. The allowance made by Sir James Kitson was when she came to England reduced to £400 a year. On Feb. 23rd chloroform was administered to her more than once. When she said to Dr. Playfair that he had better let her go she meant that he had better let her die. Sir Frank Lockwood: What did you think Dr. Playfair was referring to? I thought he was suggesting some dreadful disease. In re-examination, the witness believed she suffered from a miscarriage before leaving Australia. No medical man attended me.

Dr. Herbert Spencer, Professor of Midwifery at University College Hospital, called and sworn, said he had made an extensive study of the condition of pregnancy and conditions of the growth and morbid expulsion of the fœtus in the results of conception. He had been in court and heard the symptoms described by Mrs. Kitson, in consequence of which she underwent the operation on Feb. 23rd, 1894. He had examined her on two occasions, on March 10th and March 12th of this year. He had also examined the body produced to him as being the body or part of the body removed from Mrs. Kitson. It was shown to him and to his colleague, Mr. A. J. Pepper, at a solicitor's office. Dr. Hugh Playfair and the defendant's solicitor were present. In his opinion it was consistent with legitimate conception from her husband that the substance produced should have been removed from the lady on Feb. 23rd after the lapse of time which she stated had occurred since she saw her husband in October, 1892. If required he was prepared to justify his answer upon his general knowledge and reading, but not upon general observation.

Mr. Lawson Walton: Are you familiar with the professional rules obtaining in your profession? Yes.—Is there any rule in your profession with regard to the confidences subsisting between a patient and the medical adviser in relation to knowledge acquired in the course of professional attendance? There is such a rule.

Mr. Justice Hawkins: Is it a written rule? The Witness: It is a generally understood rule.

Continuing, witness said that the rule was that information obtained during professional attendance should be considered confidential. There were exceptions. For instance, in a case where if a medical man did not divulge a professional secret he would make himself an accessory to a crime. In a court of law, also, he would be bound under oath to divulge professional secrets.

Cross-examined by Sir Frank Lockwood, witness said he took it that this rule should guide an honourable professional man in any profession. He did not suggest that Dr. Playfair was not an honourable man. He thought that gentleman was quite as capable as himself in forming an opinion as to what he should or should not do in a case. In his own practice he had never met with a case of such a lapse of time. The longest time he had read of a placenta being retained was eighteen months. The case was quoted from Dr. Charpentier. In his own practice the longest retention he had known was six months. He did not think the condition of the placenta would obviously show the length of time it had been retained. The fact that it had been retained for twelve months would probably be shown, but not necessarily. After eighteen months' retention it would probably exhibit the fact in a greater degree. To extract a placenta that had been retained for say twelve months, he was of opinion that it would generally be necessary to dilate the orifice artificially. He would not expect this to be necessary if the placenta was the result of a three months' conception. The condition of the mouth of the womb did not afford reliable information under all circumstances. He was not able to form an estimate of the time that the substance shown him as being removed from Mrs. Kitson on Feb. 23rd had been retained in the womb.

(To be continued.)

[The case, which has occupied the attention of Mr. Justice Hawkins and a special jury since Friday, March 20th, was not concluded at the time of our going to press. Subsequently to the proceedings reported above several medical witnesses, including the defendant Dr. Playfair, Dr. Muzio Williams, Dr. Hugh Playfair, Mr. Bland Sutton, Sir John Williams, Sir Wm. Broadbent, Dr. Champneys, and Sir Wm. Priestley, gave evidence, which we do not report this week, thinking it better to present the medical details to our readers complete, with the verdict in the case.]

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Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the undermentioned subjects:—

Surgery.—F. L. Anglor, Liverpool; H. Clapham, Sheffield; R. Goulden, Manchester and Middlesex; A. J. Hayes, Middlesex; T. Jones, Manchester; C. H. Nicholson, Middlesex; W. A. Pierce, Liverpool; and W. J. Woodman, St. Mary's.

Medicine, Forensic Medicine, and Midwifery.—E. C. Hope, Melbourne and University College; S. Langton, St. Mary's; and J. Winder, St. Mary's.

Medicine and Midwifery.—A. Hilton, Manchester; and J. M. A. Lamb, London.

Forensic Medicine and Midwifery.—W. O. Piper, Westminster.

Medicine and Forensic Medicine.—F. L. Anglor, Liverpool; and P. C. Higgins, Guy's.

Medicine.—H. H. Monckton, King's College; A. Robinson, Leeds; D. D. Stewart, Liverpool; T. W. Waken, Charing-cross; and W. B. Welch, St. Bartholomew's.

Forensic Medicine.—R. Goulden, Manchester and Middlesex.

Midwifery.—D. A. Main, Belfast; and S. E. H. Martin, Royal Free.

To Messrs. Goulden, Jones, Lamb, Stewart, Welch, and Winder was granted the diploma of the society entitling them to practise Medicine, Surgery, and Midwifery.

CONJOINT EXAMINATIONS IN IRELAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS: STATE MEDICINE.—The following candidates have obtained the Diploma in State Medicine of these Colleges:—Edward Bowmaker, M.B., B.S. Durh., and Sydney Calvin Smith, M.R.C.S. Eng., L.S.A.

FOREIGN UNIVERSITY INTELLIGENCE. — *Bahia:* Dr. Carlos de Vasconcellos of Rio de Janeiro has been appointed Professor of Clinical Midwifery and Gynæcology, in succession to Dr. A. R Lima.—*Berlin:* Dr. Nasse (first assistant of Professor von Bergmann), Dr. Koeppen (first assistant of Professor Jolly), and Dr. Thierfelder have been promoted to Extraordinary Professorships of Neurology, Surgery, and Bacteriology respectively.—*Christiania:* Dr. H. Ström has been appointed Lecturer in Surgical Pediatrics.—*Göttingen:* Dr. Sultan has been recognised as *privat-docent* in Surgery.—*Kharkoff:* Dr. A. I. Ivanoff of Jurieff (Dorpat) has been recognised as *privat-docent* in Midwifery and Gynæcology.—*Madrid:* Dr. L. Guedea y Calvo of Saragossa has been appointed Professor of Clinical Surgery.—*Marburg:* Dr. A. Barth has been promoted to an Extraordinary Professorship of Surgery.—*Munich:* Dr. Fritz Lange has been recognised as *privat-docent* in Surgery.—*Rio de Janeiro:* Dr. A. Rodiguez Lima of Bahia has been appointed Professor of Clinical Midwifery and Gynæcology.—*Strassburg:* Dr. A. Siegert has been recognised as *privat-docent* in Children's Diseases.

THE DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY, BUXTON, DERBYSHIRE.—From the annual report of this hospital for 1895 it appears that of the 2562 cases under treatment in the hospital in the last year 2238 were cases of a rheumatic or gouty character; 680 of these cases were complicated with some form or degree of heart disease. The large proportion of 1413 were cases of chronic rheumatism, 80 subacute rheumatism, 567 rheumatoid arthritis, 86 gout, and 90 sciatica. In addition to the cases of heart disease mentioned above 163 cases of other disease were complicated in a similar manner. There is also a short supplementary medical report detailing the statistics of cases of rheumatism, rheumatoid arthritis, gout, and sciatica admitted during the year. This is a valuable addition by the resident medical officers, Dr. Ernest A. Dent and Dr. Alexander Whytt, calculated in time to give a very valuable table of reference on these diseases. For instance, in polyarticular rheumatoid arthritis, of which there were 447 cases, the males formed 22 per cent. and the females 78 per cent. There was a family history of rheumatoid arthritis in 4 per cent., of rheumatism in 35 per cent., of phthisis in 15 per cent., and of rheumatism in 23 per cent. As regards age, in 1·5 per cent. the disease appeared between the ages of one and ten years, in 3 per cent. males and 1 per cent. females; between the ages of ten and twenty years in 13·5 per cent., males 23 per cent., females 11 per cent.; and between the ages of twenty and thirty in 20 per cent., males 15 per cent., females 21 per cent. Valvular heart disease was found in 36 per cent., whilst in gout it was discovered in 23 per cent.

SUPERANNUATION GRANT.—Mr. Robert Fer M.R.C.S. Eng., has been granted an annual superann allowance of £70 on his retiring from the medical offic of the No. 3 District, Bristol.

DEATHS OF EMINENT FOREIGN MEDICAL M The deaths of the following eminent foreign medici are announced: Dr. Lafont, Member of the French House of Parliament for the Basses-Pyrénées.—Dr. Lecturer on Medicine in the University of Naple Armstrong, Professor of Anatomy and of Clinical S in the Atalanta Medical College.—Dr. Laughton McF Professor of Clinical Surgery in the University of Tor

THE BARKER ANATOMICAL PRIZES FOR 1 The Royal College of Surgeons in Ireland of competition two prizes of £26 5*s.* each, which a to any student whose name is on the Anatomica List of any School in the United Kingdom. T parations entered must be placed in charge of the before June 1st, 1896. One prize will be allotted t section showing the relations of the pleura, peric and lungs to the anterior chest-wall, the dissectio planned with special reference to the operation of ta incising and draining the pericardium for pyocardi the other will be allotted to a dissection displa surgical relations of the lateral sinus, the mastoidal and the semicircular canals as exhibited by a d through the bones from without, with the view trating operations in the middle ear and lateral sin particulars application should be made to the Curat Museums.

PRESENTATIONS TO MEDICAL MEN.—Mr. C. Crew, L.S.A., has been the recipient, from the of the Wednesbury Centre of the St. John Ar Association, of a meerschaum pipe for his ser instructor on ambulance aid. — Mr. Andrew L.R.C.P. Edin., L.F.P.S. Glasg., has been presente handsome inkstand by the members of the Bradford the St. John Ambulance Brigade for his instruction to on first aid.—Mr. Edward Dodd, M.R.C.S. Eng., has from the members and friends of the Slough Hear Medical Fund a handsome dinner gong, mounted o horns, bearing the following inscription: "Pres Mr. E. Dodd by the members and friends of th Hearts of Oak Medical Fund on his retirement 1896."—Dr. J. H. Rowe of Burnley has been present St. John Ambulance Corps, West-end Division, w photographs of the A and B Sections, suitably in recognition of his valuable services on Fir Mr. C. J. Jacomb-Hood, L.R.C.P. Lond., M.R Brighton, who has filled the post of honorary medi to the Jewish Convalescent Home in St. Patri Hove, since its foundation five years ago, has be cipient from the members of the local and parent c of a handsome silver bowl and a pair of silver ca in testimony of their appreciation of his servic institution.—Dr. H. E. Daniell of Chertsey, S been presented by the members of the Chertsey class in connexion with the St. John Ambulanc tion with a handsome clock for his instructio Aid.—Dr. Arthur Court of Staveley, Chesterfiel recent occasion of presenting the certificate successful members of the Staveley Town, M Sheffield, and Lincolnshire traffic department class, was the recipient of a valuable writing de the following inscription: "Presented to Dr. by the members of the Staveley Town, Manchester and Lincolnshire traffic department ambulance c Accompanying the present was an address as follo members of this class respectfully beg to tende sincere thanks for the tuition which they ha during the past twelve months, and in grateful re your generous and kindly services ask you to accompanying writing desk. At the same time t an earnest wish for your continued and deserved Signed on behalf of the members, R. Hunt, jun., Mr. Charles J. Perrott, L.R.C.P., L.R.C.S. Ire occasion of his relinquishing the position of me at the City Workhouse, Fishponds, Bristol, h recipient from the officers of a handsome silver l suitably inscribed, as a token of their esteem an tion of the uniform kindness and courtesy he h them.

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A CONCERT, under the immediate patronage of their Royal Highnesses the Prince and Princess of Wales and other members of the Royal Family, is to be given at the Queen's Hall on June 11th in aid of the Ladies' Association Endowment Fund, Great Northern Central Hospital.

DR. ANGUS MACKINTOSH has been elected by the Rural District Council of Chesterfield permanent medical officer of health for the Union. Dr. Mackintosh is thus paid a well-deserved compliment, for he has been their officer for nearly a quarter of a century.

DIPHTHERIA IN LONDON.—Since the end of the first week of February the deaths from diphtheria registered in London have shown a considerable fall in numbers. The 63 deaths of that week have yielded to totals which until last week never exceeded 48. Last week the total was 52, and was 23 in excess of the corrected decennial average for the twelfth week of the period 1886-95. Of the 52 deaths, 6 belonged respectively to St. Pancras, Islington, and Camberwell. All save one were in young persons aged under twenty years and 33 in children from one to five years of age. The admissions to hospital were 117, as compared with 97, 70, and 102 in earlier weeks. The patients remaining in hospital on Saturday last were 706 in number, as compared with 661 and 713 on the corresponding Saturdays of January and February. In Greater London the deaths were 8, occurring in Acton, Willesden, Stratford, Hornsey, and Tottenham districts. Here, then, we find during several weeks past a declination of fatal diphtheria in the metropolis, and yet a death-roll which is none the less above the decennial average.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. David Guillan of Tayport has bequeathed £2000 to the Dundee Convalescent Home.—Mr. Joseph Freeman, late of Radnor-place, Gloucester-square, Hyde Park, has bequeathed £250 to St. Mary's Hospital, Paddington, and £100 to Westminster Hospital.—The late Alderman William Bindloss of Kendal has bequeathed £1000 each to St. George's Hospital, Hyde Park-corner, King's College Hospital, London, and Middlesex Hospital.—By the will of the late Lieutenant-Colonel Mitford of Mitford, Northumberland, £100 are bequeathed to each of the following institutions—namely, St. Mary's Hospital, Paddington, Samaritan Free Hospital for Women and Children, Royal Free Hospital, Gray's-inn-road, Cancer Hospital, Brompton, and the Hospital for Consumption and Diseases of the Chest, Brompton.—The late Mr. Frank E. Hills of Penshurst, Kent, has bequeathed £1000 each to Poplar Hospital and Tunbridge General Hospital.—Mr. George Richmond has contributed £1000 to St. Thomas's Hospital to endow a surgical bed as a memorial of James Richmond.—The executors of the late Mrs. Baker of Bromsgrove, have made a grant of £7000 to the Bridgnorth and South Shropshire Infirmary.—The Worshipful Goldsmiths' Company has made the following grants—namely, £250 in aid of the funds of the Metropolitan Convalescent Institution, Walton-on-Thames, Broadstairs, and Bexhill-on-Sea; £250 each to King's College Hospital, London, the Royal London Ophthalmic Hospital, Moorfields, and Charing-Cross Hospital, London; and £100 to the Dental Hospital of London.—The late Sir Julian Goldsmid, Bart., M.P., has bequeathed £2000 each to University College Hospital and the Royal Free Hospital, £1000 each to the Jews' Hospital, Lower Norwood, and the Metropolitan Free Hospital, and £500 each to the Brompton Consumption Hospital, Tunbridge Wells Infirmary, and the Sussex County Hospital.—The following donations have been received by the committee of the North-West London Hospital, Kentish-town-road, in response to Lord Rathmore's appeal—namely, £100 from the Right Hon. Lord Iveagh and £50 from Mrs. Mary Mensbier.—The executors of the late Mr. David James have made a grant of £450 to the National Hospital for Consumption, Ventnor, Isle of Wight.—Mrs. Fish has contributed £1000 to the Westminster Hospital, Broad Sanctuary, in memory of her late husband Mr. Charles Fish.—Mrs. James Packs has sent a donation of £500 to the Middlesex Hospital.—The Merchant Taylors' Company has voted 50 guineas to Charing-cross Hospital, London.—Mr. Thomas Martin, of Beechwood, Withdeane, Brighton, has presented £100 to the Western Branch Fund of the Brighton and Preston Dispensary, and £50 to the Sussex Eye Hospital.—From an anonymous donor the treasurer of Guy's Hospital has received £1000 for the re-endowment fund.

THE BUDAPEST EXHIBITION.—For the convenience of medical men visiting the exhibition, which will open on May 1st, 1896, arrangements have been made by the Proprietor of the Franz Josef Spring to place at their disposal a special room, to which letters and telegrams may be addressed, and in which every convenience for correspondence will be provided free of charge. There will be a supply of medical and balneological literature and guide books and the telephone will be at the disposal of visitors. Letters may be addressed Franz Josef Spring in Budapest.

THE STRANGERS' HOSPITAL, RIO DE JANEIRO.—We have just received the annual reports of the Strangers' Hospital, Rio de Janeiro, for the years ending June 30th, 1894 and 1895 respectively. During the half-year ending Dec. 31st, 1893, there were only 25 patients admitted, but from January to the end of June, 1894, the great amount of sickness prevailing in the port, aggravated as it was by the exigencies of the revolution, taxed the capacity both of the hospital and of its staff almost beyond due limit. In this period 172 patients were admitted, of whom 149 had yellow fever. There were 53 deaths, including 45 from yellow fever, 2 from pernicious malaria, 2 from tetanus, and 1 each from heart disease, enteric fever, disease of the kidney, and gangrene of the pharynx. From July 1st, 1894, to June 30th, 1895, there were 104 patients admitted, with 13 deaths, 9 of which were due to yellow fever. The matron and three of the nurses were attacked with yellow fever, which, unfortunately, proved fatal to one of the nurses (Miss Clayton). The hospital was founded with the object of providing prompt and skilled attendance for a limited group of English and American subscribers, their families and employés, in times of illness, especially during the recurring epidemics of yellow fever, but it has now acquired more of a public character than was originally intended.

THE DIFFUSION OF SMALL-POX.—There was last week a slight increase in the number of admissions of small-pox cases to hospital in London as compared with the week preceding. Last week the admissions were 9, and in the week preceding only 4 in number, 1 and 13 being the totals of the two prior weeks. The patients remaining under treatment on Saturday last were 43 in number, and only 1 in addition to those of the previous Saturday. In the corresponding weeks of January and February the cases in hospital had been 73 and 58 respectively. No death from the disease was registered last week, the deaths in the course of the twelve weeks of the present year having been only 5 in all, these having taken place in the second and tenth weeks. No death took place in any of the suburban districts of Greater London last week. For the rest of the kingdom, the chief centre of small-pox prevalence during last week was again in Gloucester and in the towns and districts surrounding that unhappy city. In the week ended March 12th the new cases notified had been 138, and in the next succeeding seven days the fresh attacks reached the total of 117, the deaths were 19, and the discharges from the hospital only 1. Nor is this the worst, as later information reaches us to the effect that new cases are now arising at the rate of 43 daily. The President of the Local Government Board stated in the House of Commons last week that of the first 495 cases occurring, there had at that time been only 100 recoveries, meaning we presume by that that convalescence had been established, that 300 patients were still under treatment, and that 93 deaths had been chronicled, a per case mortality at that moment of over 18 per cent. It would have added much to the value of the statement had the cases and deaths been classified according as the sufferers were vaccinated, unvaccinated, or revaccinated. How far the present epidemic may still extend it would be unwise to predict, though anti-vaccinators, in a hurry to arrive at deductions favourable to their dangerous theses, would have us draw conclusions on a total of attacks estimated by themselves. Certain it is that there is plenty of material capable of feeding the disease in the city in the shape of unvaccinated members of the community. For ten years the Vaccination Laws have been virtually a dead letter in the city, the guardians having as far back as 1887 given up the previous plan of proceeding against defaulters under Acts relating to infantile vaccination. That the present deplorable state of the town is to a large extent due to this neglect on their part cannot, we imagine, be gainsaid, the idle talk about sewer air, insanitary areas,

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and the like, notwithstanding. As recently as Saturday last a meeting of anti-vaccinators was held at the Albert Hall, Gloucester, a unanimous vote being passed in favour of a continuance of neglect of vaccination and calling upon the city guardians to vote against the proposed motion to rescind the former resolution of the guardians withholding all proceedings against defaulters. However, we are glad to be able to state that wise counsels prevailed at the meeting of the guardians on Monday last, and that a resolution in favour of the enforcement of the compulsory clauses of the Vaccination Acts was passed by a majority of 9 in a board voting to the number of 53. Already a good deal of vaccination and revaccination had been performed, though but little in comparison with what remains to be accomplished. The town council have not been slow to do all in their power to get this prophylactic favourably recognised by the public, and had they been charged with its enforcement, probably much would have been done ere now. Employers of labour have been circularised, the medical men of the town have been called in council, and other steps taken to safeguard the health of the people against the disease. The guardians have contributed £150 towards the carrying on of the work of the District Nursing Society, which has to deal with an ever increasing number of home-treated patients ill from small-pox. The epidemic seems to have now got beyond the controlling power of isolation in hospital, and reliance must be in no mean degree now placed on the measure of success which shall speedily follow the resolution of the guardians to enforce vaccination. A meeting of the medical officers around Bristol has been held at the instigation of Dr. Davies, the medical officer of Bristol, and the risk has been considered that small-pox may break out in any of the districts represented, and it was decided that unanimity of action should be agreed on. The death of a child from small-pox has been reported at Leonard Stanley, in the Stroud rural district, the patient coming from Gloucester. As a precautionary measure a hospital is to be erected at Tewkesbury. At South Corney, near Cirencester, the small-pox hospital has been attacked and seriously damaged. The Cardiff guardians on Saturday last resolved to remove all restrictions which have been imposed on the workhouse in view of the continued freedom of the district through another week from small-pox attacks. An additional case of small-pox has been discovered in the Forest of Dean, this time at Cinderford, the case, like the former, being a child sent to friends from Gloucester, to which place he was speedily returned. Two fresh cases arose at Swansea last week, and one death occurred. A case at Melincrythan has been removed to the Neath Rural Hospital on Cimla Common.

LITERARY INTELLIGENCE.—"Occasional Papers on Medical Subjects, 1855–1896," by W. Howship Dickinson, M.D.Camb., F.R.C.P.Lond., is a work announced by Messrs. Longmans, Green, and Co. The same firm will shortly issue new editions of "Newth's Elementary Practical Chemistry" and "Watson's Elementary Practical Physics," both of which are laboratory manuals for use in organised science schools. This month Messrs. Longmans publish a new edition of "Jago's Inorganic Chemistry, Theoretic and Practical," rewritten and enlarged in accordance with the requirements of the revised Directory of the Department of Science and Art issued in 1895. Another of their announcements is "Madagascar in War Time: the Experiences of the *Times'* Special Correspondent with the Hovas during the French Invasion of 1895."—In the course of the summer Mr. J. F. Lehmann of Munich will publish a series of "Neurological Wall Diagrams" prepared by Dr. A. Strümpell and Dr. C. Jakob. The series will consist of thirteen coloured plates 80 by 110 and 160 by 220 centimetres. The first part of Dr. J. Oeller's "Atlas of Ophthalmoscopy," containing fifteen plates with English text has just been published by Mr. Bergmann of Wiesbaden. Messrs. Williams and Norgate are the English agents for both works. The Swiss National Exhibition Commissioners have published an illustrated official journal containing some fine reproductions of photographs and drawings of the exhibition buildings with engravings of the public buildings of the city. The descriptive articles are printed in the three national languages—viz., French, German, and Italian—and we understand that an English supplement is in the press. It is gratifying to find in one country four of the great families of the nations working together in good fellowship to attain a common national object.

Parliamentary Intelligence.

CURRENT NOTES.

Public Health (Scotland) Bill.

THE Committee appointed to consider this measure consist: Duke of Richmond, the Marquis of Breadalbane, the Earl of Lau the Earl of Camperdown, Lord Balfour of Burleigh, the Ma Lothian, the Earl of Erroll, the Earl of Kintore, Lord Re Tweedmouth, and Lord Overtoun.

Infant Life Protection Bill.

After this Bill (introduced by the Earl of Denbigh on beha London County Council) had been read a second time in the L Lords, their lordships determined to appoint a Special Comm refer the Bill to it. This Committee held its first meeting on March 24th, when it appointed Lord Denbigh chairman, and to meet after the Easter Recess for the examination of witness

London Water Question.

The general policy of the Government with regard to this was debated at length in the House of Commons on March 24th, in connexion with a number of transfer bills pro the London County Council and bills mainly for the contr works promoted by various of the water companies. Mr. Cha the principal speech on behalf of the Government. He expres that the Government should be brought so early into conflict great representative authority in London, but on grounds bo and of policy they felt compelled to oppose the bills of th Council, while with regard to the bills of the water compa could only assent to their second reading on the distinct unde that an instruction was sent to the committee limiting the "such as could not be postponed without detriment to t interest." The County Council bills were rejected by the three of the bills of the water companies were passed th second reading stage on this understanding. The result is t way absolutely clear for the scheme of the Government.

HOUSE OF LORDS.

MONDAY, MARCH 23RD.

Insanitary Conditions at Malta.

The Earl of Buckinghamshire asked the Secretary of Sta whether any inquiry had been recently instituted into th arrangements at Pembroke Camp, at Malta; and, if so, result; what amount of money had been spent there arrangements since the last outbreak of enteric fever; a cause were the deaths of Captain Carey, who died at Pem on Feb. 21st, and Private Lucas, who died about the middle both of them belonging to the Royal Warwickshire attributed? The Marquis of Lansdowne replied that the into the sanitary condition of Pembroke Camp was held by and military committee early in 1894. This inquiry rev defects in the sanitary arrangement of Pembroke Camp points requiring attention being the water-supply, which w be polluted, and the drainage system, which required com tion. Suspicion was also cast on the supply of mineral wat by hawkers to the soldiers, and the attention of the general this point. In consequence of the report of the committee water-supply was cut off, and none but aqueduct water wa The question of renovating the drainage of the camp had p difficult one, as a complete scheme for remodelling the dra whole island had been under consideration, and a thorough tion of the sewers of the camp could only be undertaken with it. Much had, however, been done to improve th The remodelling of the drainage of the upper half of t sanctioned in May last, and considerable progress had be the work. He was afraid he could not say what amount h on the drainage since the last outbreak of enteric fever, deaths of Captain Carey and Private Lucas, while he received the detailed reports, there was, he believed, enteric fever was the cause in both cases, and there was, h reason to suppose that the fever was due to the unsatisfa condition of the island, if not of the barracks. The matt require further inquiry, and he promised that it we special attention.

HOUSE OF COMMONS.

THURSDAY, MARCH 19TH.

Small-pox Epidemic in Gloucester.

Mr. Radcliffe Cooke asked the President of the Loca Board whether he was aware that an alarming outbrea had now been raging in Gloucester for many weeks and increase? How many deaths had occurred in the course many persons were now laid down with the disease? been brought to his notice that small-pox was steadily i the line of the Midland Railway in the direction of worth, Frocester, and Dursley, and that small-pox imported into Leominster from Gloucester? And wh had been taken for the disinfection of the railway ca running out of Gloucester?—Mr. Chaplin replied: Th very serious outbreak of small-pox in the city of Glouces there have been 495 cases notified. Of these 300 are ment for the disease and 93 have died. I have receiv tions from the Stroud and Nailsworth district council councils of Wheatenhurst and Dursley rural distr Frocester and Dursley are situated, and I find that th places have been few in number, the majority thus f

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attacks. I addressed a letter to the Gloucester rural district council but have not yet received the information asked for with respect to that district. There have been 3 cases of small-pox in Leominster, but they have not been directly traced to Gloucester. The Local Government Board have no evidence that the railway carriages on the lines referred to have been infected, and they feel sure that there would be no indisposition on the part of the railway company to adopt any disinfection which the medical officer of health might recommend if it was found necessary.

FRIDAY, MARCH 20TH.

The Food and Drugs Act in Ireland.

Mr. Gerald Balfour, in reply to a question by Mr. Parnell, said that during the five years ended Dec. 31st, 1895, the number of persons proceeded against throughout Ireland, outside the Dublin metropolitan district, for selling adulterated spirituous liquors was 458, of whom 394 were convicted and 64 discharged. As evidence of the vigilance of the members of the police force who had been appointed by local authorities to carry out the provisions of the Sale of Food and Drugs Act, and whose duty it was to use every effort to detect the sale of adulterated liquors, he might mention that during the past five years the number of samples suspected to have been adulterated and submitted for analysis by the police outside Dublin was 5216, and that the number of such samples submitted for analysis in each of the five years showed a progressive increase from 514 in 1891 to 1578 in 1895. The returns made to him by the police did not show the nature of the ingredients used in the adulterations, though he believed it was probable that in many cases water only was used. In the case of Dublin prosecutions for the sale of adulterated liquors were instituted by the corporation.

Industrial School Children.

Mr. Drage asked the Secretary of State for the Home Department whether it was or had recently been the practice to employ children in the industrial schools as half timers under age, and whether there had been cases of children of the tenderest age in such schools being put to work contrary to the provisions of the Education Act?—Sir Matthew White Ridley replied: The employment of children in industrial schools cannot be compared with the employment of half-timers as regulated by the Factory and the Education Acts. The provision of industrial training in these schools is authorised by the Industrial Schools Act of 1866, and, I am advised, is not affected by the Education Acts. On this point I may refer the hon. member to Section 50 of the Education Act of 1876. I may assure him, however, that the inspectors pay special attention to the character of the employments to which young children are put, in order that as far as possible they may be suited to their age and physical condition, and that I have every reason to believe the system of mixed industrial and school training is working beneficially. The point is one to which the Committee that is now sitting will doubtless pay special attention.

MONDAY, MARCH 23RD.

Public Health.

Mr. T. W. Russell, on behalf of Mr. Chaplin, introduced a Bill "to make further provision with respect to epidemic, endemic, and infectious diseases and to repeal the Acts relating to quarantine."

Venereal Disease in the Army.

Colonel Lockwood asked the Under-Secretary of State for War whether he was in possession of facts confirming a statement from the Calcutta correspondent, which appeared in the *Times* of March 18th, that more than 3000 British soldiers were constantly in hospital from venereal disease; that the rate of admission to hospital from that cause had risen in 1895 to 511 per 1000; and that out of a force of 70,000 men only 26 000 had not suffered from it, and whether the Commander-in-Chief in India had made any representation on the subject?—Mr. Brodrick replied that the figures quoted were substantially correct and that the matter was one which had been the subject of representations at intervals by the Commander-in-Chief in India.

TUESDAY, MARCH 24TH.

The Carriage of Medicines.

Mr. A. K. Loyd asked the Secretary to the Treasury, as representing the Postmaster-General, whether, in order to save labourers in rural districts from having to walk long distances, amounting often (there and back) to ten or twelve miles, to fetch medicines for their wives or children in receipt of out-door medical relief, the Post Office could arrange for a gratuitous medicine post, by which Poor-law medical officers could send medicines to pauper patients in such districts.—Mr. Hanbury replied that there was a strict rule against sending glass by letter post, and packets containing bottles of medicine could not, therefore, be accepted for transmission as letters. The parcel post, however, was available at reasonable rates for medicines, whether in bottles or otherwise. He might also state that for the convenience of the public in urgent cases the ordinary rule prohibiting mail-cart drivers and rural postmen from carrying private parcels had been so far relaxed as to enable them to carry small packets of medicine. The Postmaster-General saw no reason why the duty of the free conveyance of medicine should be cast upon the Post Office.

Nursing in Workhouses.

Sir Walter Foster asked the President of the Local Government Board whether his attention had been called to a case of cruelty in the Whitechurch workhouse on the part of a pauper nurse, who put a child into hot water and scalded one foot badly and the other slightly; whether he would have the case investigated; and whether he was taking any steps to press on boards of guardians the importance of establishing a system of trained nursing in workhouse infirmaries and abolishing the custom of relying on paupers as nurses?—Mr. Chaplin replied: I have made inquiry respecting the case referred to and I find that in consequence of several cases of measles having occurred in the workhouse, mostly of a mild type, three inmates were directed to look after them, although under ordinary circumstances paupers are not employed to look after the sick. I am informed that on previous occasions, under similar circumstances, instructions were given by the guardians that an additional nurse should be employed. It is much to be regretted that these instructions were not carried out when these additional cases occurred. The conduct of the pauper referred to was no doubt most reprehensible, and the guardians communicated with the police with a view to its being considered whether a prosecution should not be instituted against her. I am glad to learn, however, from a certificate of the medical officer that the injuries were not of a serious character and that the child is now quite well. The board, by a circular letter issued on Jan. 29th, 1895, urged upon boards of guardians the importance of appointing only trained and experienced nurses and at the same time clearly stated that, "whilst the board are not prepared to lay it down as a rule that in no case should pauper inmates act as attendants in sick wards, as clearly distinguished from nurses, they consider that their services should only be used with the approval of the medical officer and under the closest supervision at all times of paid officers." The importance of attention to these matters is urged upon the guardians by the board and their inspectors.

IN COMMITTEE.

Food Products Adulteration.

The Select Committee of the House of Commons on the adulteration of food products held a meeting on Wednesday, March 18th, Mr. T. W. Russell presiding.

Mr. John Sumner, Chief Inspector of Nuisances and Inspector under the Sale of Food and Drugs Act, Wigan, expressed the opinion that the maximum penalty of £20 was no deterrent to large dealers who were supplying margarine to the public in place of butter. He would have the maximum increased and give magistrates the power in case of persistent evasion of the Act to inflict imprisonment without the option of a fine. He was strongly in favour of a standard for milk and butter, being of opinion that it would greatly assist inspectors in the proper performance of their duties. In his view and in the view of many other provincial inspectors the inspector under the Food and Drugs Act should be appointed either by the county council or by the Local Government Board, and should change his district from time to time in order that he might not become too well known in any one district. He would have margarine of a different colour from butter, whatsoever the colour may be, while as to cheese he would have a special name for cheese that contained margarine.

Mr. Tichborne, of the Pharmaceutical Society of Ireland and the Institute of Chemistry, said that as a public analyst he had had large experience in the examination of butter and had paid special attention to the percentage of moisture in Irish butter. It was an undoubted fact that farm-made butter in the south and west of Ireland contained a very large amount of moisture, and that if a standard of 16 per cent. were set up it would drive much of that butter out of the market. The larger amount of moisture in Irish than in other butter was due to the method by which it was prepared and the want of freezing apparatus, and perhaps in a measure to carelessness. Butter made in creameries in Ireland did not, as a rule, contain so much water, but, on the other hand, it did not keep so long as the farm-made article. When foreign fats were introduced in large quantities they were easily detected, but not so when they were introduced in small quantities. Indeed, the estimation of small quantities of margarine in butter was more or less a mere matter of opinion. The difficulty with the analyst was that whatever test he might apply he did not know the original composition or fusing point. In 1895 samples of butter, chiefly taken in Dublin, were sent to him for analysis by the Tipperary Farmers' Association, and he found that of twenty there were thirteen adulterated with margarine, while of twenty-one samples sent to him in the same way last month there were only four adulterated with margarine. It was not the water that gave the Irish salt butter its great staying or keeping power, but the fact that all the animal portion which was peculiarly liable to change had been thoroughly pickled. A suggestion had been made that starch should be put into margarine, but he should prefer to have it made compulsory to introduce a certain percentage of sugar of milk which, while assisting analysis, would improve the flavour of the article and make it more palatable. He would fix a standard both for fresh and salt butter, and in his opinion the former should be 16 per cent. of moisture and the latter 20 per cent. He admitted that such a standard for salt butter might lead to the percentage of water being raised in butters which at present contained less water than Irish butter, but the standard might be revised from time to time by a board of experts.

Mr. T. H. Elliott, Secretary to the Board of Agriculture, said there was a strong feeling on the part of agriculturists throughout the country that the prices they obtained for their products were reduced by the unfair competition of adulterated foreign products, and the Board had taken steps to ascertain whether this feeling was well founded in the case of butter and cheese by taking a large number of samples of the imported products and having them analysed. As to butter, they found that of 220 samples from Holland 54 were adulterated, of 183 from Denmark 8, of 78 from Sweden none, of 21 from Norway 2, of 5 from Belgium none, of 60 from France none, of 34 from Russia 5, of 124 from Germany 37, of 51 from the United States none, of 39 from Canada none, of 18 from New Zealand none, of 53 from Australia none, and of 4 from the Argentine Republic none. The Board were anxious to take some action in regard to these adulterated samples, but they were informed by their legal advisers that the prosecution would almost certainly fail from the inability of the Board to prove intention to defraud. Samples of cheese were also taken, and in the case of adulterated samples the Board wrote in most instances to the exporters. The replies agreed in one particular—that all expressed surprise at the information that their particular product had been found to be adulterated. The Board had been met in many cases in a fair and reasonable way, and it was hoped that good would result from the action thus taken. The Board attached importance to the continuation of the system by which samples were taken at the port of arrival, although they thought nothing should be done to weaken the responsibility of the importer. They thought, in regard to the home manufacturers of margarine, that they should be registered and that their premises should be open to inspection by the officers of the Inland Revenue. They were also of opinion that the importers and wholesale manufacturers should keep a list of the persons to whom consignments were sent in order that they might be traced.

The Committee then adjourned.

The Committee held another meeting on Tuesday, March 24th, Mr. T. W. Russell presiding.

Mr. T. H. Elliott, in further examination, said that the Board of Agriculture had received communications from the Netherlands

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Government inquiring as to the methods of analysis adopted at Somerset House, but not suggesting any error in the results of these methods. At the same time he believed that the cases of adulteration in Dutch butter had been strongly contested otherwise than officially. It was only in April last that the Board of Agriculture began to inspect samples at the port of entry, and although their authority for this work expired on the 31st instant, they had made application to the Treasury for an extension in order that it might be continued. In the course of communications with the Danish Government it had been suggested that the Board should make a statement as to the percentages of adulteration found, but the Board had always been reluctant to do so, because it might seem to suggest that below a certain percentage adulteration might be committed with impunity. In all these matters there was a considerable conflict of opinion among experts, and the Board was bound to rely upon the expert advisers of the Government, but he might say that they took steps in connexion with the Danish cases to bring the advisers of the two countries together in order to discuss matters and, if possible, come to a common arrangement. He wished to say that the Board had no reason to doubt the accuracy of the reports as to adulteration made to them by the chemical experts of the British Government. Obviously it was the interest of the Danish Government to see that no suspicion of adulteration attached to the exports from Denmark to this country. Certain conditions were necessary before the Board of Agriculture could detain butter at the port of entry. The goods must be marked butter, and the Government must have some information before them tending to discredit the character of the goods, and if the information was supplied by a private individual, he must give some security for the detention of the goods. In some cases the Board of Agriculture communicated to local authorities the results of the analysis of samples taken, in order that they might keep under supervision the trader to whom the adulterated article was consigned. He had no evidence of any local authority having in consequence of this action identified a consignment or instituted proceedings, and he admitted that the arrangement was not everything that could be desired.

Mr. Follit, solicitor to the Board of Customs, was the next witness. He explained that he had advised the Board that the Margarine Act gave them no power to detain at the port of entry for the purposes of examination, but that the Merchandise Marks Act did in any case where the goods were marked with a false trade description.

Mr. Thomas Fry, director of Messrs. J. S. Fry and Sons, Limited, gave evidence condemning the proposal in the bill of the Society of Public Analysts for the establishment of a board of reference, which, he said, would harass the makers of cocoa preparations and do no good to the public in this connection. His case was that so long as these mixtures were not injurious to health and were properly labelled they should not be interfered with.

Mr. Hazelwood, general manager to Messrs. Colman and Co., gave evidence of the same kind with reference to mustard mixtures.

The Committee then adjourned.

BOOKS, ETC., RECEIVED.

APPLETON, D., AND CO., New York.

Transactions of the Seventeenth Annual Meeting of the American Laryngological Association. June, 1895-96.

BERGMANN, J. F., Wiesbaden.

Klinische Beiträge zur Ohrenheilkunde. Von Dr. O. Brieger, 1896.

Das Hörvermögen des Taubstummen. Von Dr. F. Bezold. 1896.

Die Ohrenheilkunde des Hippokrates. Von Dr. O. Körner. 1896.

CHATTO AND WINDUS, Piccadilly, London, W.

Moorland Idylls. By Grant Allen. 1896. Price 6s.

CLAY, WM. F., Teviot-place, Edinburgh.

The Histo-pathology of the Diseases of the Skin. By Dr. P. G. Unna. Translated from the German by N. Walker, M.D., F.R.C.P. Edin. Illustrated. 1896. Price 31s. 6d. net.

FUNK AND WAGNALLS COMPANY, London and Toronto.

Youthful Eccentricity: A Precursor of Crime. By Forbes Winslow, D.C.L. Oxon., M.B. Cantab. 1896. Price 2s.

KEGAN PAUL, TRENCH, AND CO., Charing-cross-road, London, W.C.

Mediterranean Winter Resorts, with special Articles on the principal Invalid Stations by Resident English Physicians. By Eustace A. Reynolds-Ball, F.R.G.S. With a map. Third edition. 1896. Price 5s.

LEWIS, H. K., Gower-street, London, W.C.

Researches into the Anatomy and Pathology of the Eye. By E. Treacher Collins, F.R.C.S. Illustrated. 1896. Price 6s.

LONGMANS, GREEN, AND CO., Paternoster-row, London, E.C.

The Glaciers of the Alps. By John Tyndall, F.R.S. Illustrated. New Edition. 1896.

Fear. By Angelo Mosso. Translated from the fifth edition of the Italian by E. Lough and F. Kiesow. 1896. Price 7s. 6d.

MACMILLAN AND CO., Bedford-street, London, W.C.

Text-book of Comparative Anatomy. By Dr. Arnold Lang. Translated into English by H. M. Bernard, M.A. Cantab., and Matilda Bernard. Part 2. 1896. Price 17s. net.

SAUNDERS, W. B., Walnut-street, Philadelphia.

A Text-book upon the Pathogenic Bacteria for Students of Medicine and Physicians. By J. McFarland, M.D. Illustrated. 1896.

SKEFFINGTON AND SON, Piccadilly, London, W.

My Doctors. By a Patient. Tenth edition. 1896. Price 1s.

SMITH, ELDER, AND CO., Waterloo-place, London, S.W.

Dictionary of National Biography. Edited by Sid
Vol. XLVI. Pocock—Puckering. 1896.

THE F. A. DAVIS COMPANY, Philadelphia.

Colour-vision and Colour-blindness: a Practical Manual
road Surgeons. By J. Ellis Jennings, M.D. Illustrated

THE REBMAN PUBLISHING COMPANY, Adam-street, Strand, Lon

A Pictorial Atlas of Skin Diseases and Syphilitic A
Edited by J. J. Pringle, M.B., F.R.C.P. Part III. 18
10s. 6d.

Water and Water-supplies. By J. C. Thresh, D.Sc. Lo
Victoria, D.P.H. Camb. 1896. Price 8s.

THE ROXBURGHE PRESS, Victoria-street, Westminster, S.W.

Love Fugue. By John B. Frost. Price 2s.

THE W. J. JOHNSTON COMPANY, Broadway, New York.

Elementary Electro-technical Series: Electricity in Elec
peutics. By E. J. Houston, Ph.D., and A. E. Kenn
1896.

WRIGHT, J., and Co., Stonebridge, Bristol.

The Medical Annual and Practitioner's Index for 1896.
year. Price 7s. 6d. net.

The Register of Trained Nurses of the Royal British Nurs
tion for 1896 (Offices, 17, Old Cavendish-street, London,
3s. 6d. — Science Progress; March, 1896 (The Scient
428, Strand, London, W.C.); price 2s. 6d.—Annales de
Royale des Sciences Médicales et Naturelles de Bruxelle
Fasc. 1-2 (Henri Lamertin, Bruxelles, 1896).—Proceedi
Philosophical Society of Glasgow, 1894-95; vol. 26 (J. Smi
Glasgow. 1895); price 10s. 6d.—Transactions of the Am
thalmological Society: thirty-first annual meeting, Ne
Conn., 1895 (published by the Society, Hartford, 1896).
Clinique Médicale (Hôtel Dieu, 1894-95); par Dr. Pi
(Masson et Cie, Paris), 1896.—Les Artérites: leur Rôle en
par A. Brault (G. Masson, Paris).—Diphtheria Antitox
Biological Products; illustrated. Gebier's Double Anti
for Malignant Diphtheria; Tetanus and Streptococcus
(Lehu and Fink, New York City).—Which is the Pu
with some Account of a Famous Gin Distillery; illustr
Sharpe and Co., Queen Victoria-street, London, E
University of Ireland: the Calendar for the Year 1896
and Co., Dublin).

Appointments.

*Successful applicants for Vacancies, Secretaries of Public
and others possessing information suitable for this
invited to forward it to* THE LANCET *Office, directe
Editor, not later than 9 o'clock on the Thursday mo
week for publication in the next number.*

ADDENBROOKE, E. H., M.R.C.S., has been reappointed
of Health for the Wolverley Sanitary District.

BLAXLAND, HERBERT, M.R.C.S. Eng., L.R.C.P. Lon
appointed Deputy-Inspector-General of the Insan
Wales.

BLOXSOME, C. H., L.R.C.P., L.R.C.S. Edin., has bee
Honorary Surgeon to the Fairford Cottage Hospital.

BUXTON, T., L.R.C.P. Edin., M.R.C.S., has been reappoint
Officer for Kingsbury, Tamworth Union.

CHEPMELL, C. W. J., M.D. Brux., L.R.C.P., L.R.C.S. I
Glasg., M.R.C.S., has been reappointed Honorary
to the Brighton and Hove Hospital for Women
Brighton.

CILLIERS, P. G., M.B., C.M., has been appointed Clini
the Chelsea Hospital for Women.

CREAGH, WM., L.R.C.S. Irel., has been reappoint
Officer for Clifton, Tamworth Union.

CUNLIFFE, THOMAS VARLEY, M.R.C.S., L.R.C.P. L
appointed House Surgeon to the Manchester Sou
for Women and Children.

DALTON, J. H. C., M.D., B.C., D.P.H. Camb., has
Honorary Deputy Medical Officer by the Cambridge

DUNCAN, W., L.F.P.S. Glasg., has been appointed Me
the Lunatic Department of the Union Infirmary
Board of Guardians.

FAWSSETT, F., M.B., B.S. Lond., L.R.C.P., M.R.C.S., ha
District Medical Officer by the Lewes Board of Gua

FURNER, E. J., F.R.C.S., has been reappointed H
Officer to the Brighton and Hove Hospital for Wom
Brighton.

GIFFARD, D. W., M.R.C.S., has been reappointed H
Officer to the Brighton and Hove Hospital for Wom
Brighton.

HALL, C. B., M.R.C.S., L.R.C.P., has been appointed
Officer to the Chelsea Hospital for Women.

HORTON, F., M.B. Durh., B.S., L.R.C.P. Lond., M.R.C
has been appointed Local Certifying Surgeon un
Act, vice Cook, resigned.

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HOUNSFIELD, S. C., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Second House Surgeon to the East Suffolk Hospital, Ipswich.

HUGHES, R. F., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Medical Officer at the Birkenhead Workhouse.

ILES, D., M.R.C.S., has been reappointed Honorary Surgeon to the Fairford Cottage Hospital.

IONIDES, T. H., M.B., B.S. Lond., F.R.C.S., L.R.C.P., has been re-appointed Honorary Medical Officer to the Brighton and Hove Hospital for Women and Children, Brighton.

JACOMB-HOOD, C. H., L.R.C.P. Lond., M.R.C.S., has been reappointed Honorary Medical Officer to the Brighton and Hove Hospital for Women and Children, Brighton.

JEFFERSON, A. J., M.D. Lond., B.S., M.R.C.S., has been appointed Honorary Medical Officer to the Rochdale Infirmary.

JONES, J. ARNAULT, L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health by the Aberavon Town Council.

JONES, F. F., M.R.C.S., D.P.H. Eng., has been appointed Medical Officer of Health by the Llanfyllin Rural District Council.

KERR, W. J., M.D. Vict., Ch.B., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Rochdale Infirmary.

KERR, W. J., M.D., Ch.B. Vict., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Honorary Surgeon to the Rochdale Infirmary, vice Colley March.

KNOX, J. J., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been re-appointed Medical Officer of Health by the East and West Molesey Urban District Council.

MEADOWS, G., M.B., C.M. Edin., has been appointed Medical Officer for the Fourth Sanitary District of the St. Germans Union, vice R. C. Revell, deceased.

MUNRO, A. C., M.B., B.Sc., D.Sc. (Public Health), M.R.C.P. Edin., has been appointed Medical Officer for the Burgh, Glasgow.

MURRAY, ALLAN, has been reappointed Agricultural Analyst under the Fertilisers and Feeding Stuffs Act, 1893, by the Merioneth County Council.

RUSSELL, J. RISIEN, M.D. Edin., M.R.C.P. Lond., has been appointed Pathologist to the National Hospital for the Paralysed and Epileptic, vice Colman, appointed Assistant Physician.

SANDERSON, R., M.B., B.Ch. Oxon., M.R.C.S., has been reappointed Honorary Medical Officer to the Brighton and Hove Hospital for Women and Children, Brighton.

SELLERS, A. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health by the Thornhill Urban District Council.

STEWART, J. H., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer of Health for the Borough of Lostwithiel.

WALKER, G. E., L.R.C.P. Lond., M.R.C.S., D.P.H. Camb., has been appointed Governor of the Female Convict Prison at Aylesbury.

WEBB, C. F., M.D. Durh., F.R.C.P., F.R.C.S. Edin., M.R.C.S., has been reappointed Medical Officer of Health by the Basingstoke Town Council.

WINTER, J. N., M.R.C.S., has been reappointed Honorary Medical Officer to the Brighton and Hove Hospital for Women and Children, Brighton.

WORGER, T. H., M.R.C.S., has been reappointed Medical Officer by the Radstock District Council.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

ANCOATS HOSPITAL, Manchester.—Resident Junior House Surgeon. Salary £50, with board and washing.

BETHLEM HOSPITAL.—Two resident Clinical Assistants, for six months. Apartments, board, and washing provided. Applications to the Clerk, Bridewell Hospital, New Bridge-street, E.C.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Surgeon to In-patients.

CHICHESTER INFIRMARY.—Honorary Medical Officer.

CITY OF BIRMINGHAM.—Deputy Medical Superintendent for the City Hospital, Little Bromwich, unmarried. Salary £175 per annum, with residence, rations, and attendance. Applications to the Clerk to the Health Committee, Council House, Birmingham.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—Assistant Physician. Also Pathologist. Salary 100 guineas per annum.

COUNTY ASYLUM, Lancaster.—Assistant Medical Officer for five or six months. Salary two guineas per week, with board, &c.

DR. STEEVENS' HOSPITAL, Dublin.—House Surgeon for two years. Salary £100 per annum, with apartments, fire, and light.

DUNDEE ROYAL LUNATIC ASYLUM.—Assistant Medical Officer. Salary £100 a year, with board, lodging, &c.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark, S.E.—Four qualified Clinical Assistants and eight unqualified Clinical Clerks in the Out-patient Department.

GENERAL INFIRMARY, Northampton.—Resident Dressership. Board, lodging, and washing provided.

HEREFORD COUNTY AND CITY ASYLUM.—Medical Superintendent. Salary £400 per annum, with furnished house, coals, gas, vegetables, and washing. Applications to Chairman, Asylum Committee, Shirehall, Hereford.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton, S.W.—House Physicians. Also Clinical Assistants to the Out-patient Department and Clinical Clerks to the In-patient Physicians.

KESTEVEN AND GRANTHAM DISTRICT ASYLUM.—Resident Medical Superintendent. Salary £300 a year, with rations, coals, light, and washing. Applications to the Clerk to the Visitors, Stamford.

MANCHESTER ROYAL EYE HOSPITAL.—House Surgeon. Salary £70 per annum, with residence, board, and washing.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich-road, S.E.—Junior Resident Medical Officer for six months. Salary £30 per annum, with board, attendance, and washing.

NATIONAL DENTAL HOSPITAL, Great Portland-street, W.—Anæsthetist.

NEW HOSPITAL FOR WOMEN, 144, Euston-road, London.—Medical Woman as Clinical Assistant in the Out-patient Department for one year. Also Medical Woman as Assistant Anæsthetist for one year.

PADDINGTON-GREEN CHILDREN'S HOSPITAL, W.—House Physician and House Surgeon for six months. Salary at the rate of £50 per annum, board and residence.

PARISH OF BIRMINGHAM.—Resident Medical Officer for the Workhouse Infirmary. Salary £100 per annum, with furnished apartments, rations (which do not include alcoholic liquors), coals, gas, washing, and attendance. Applications to Clerk to the Guardians, Parish Offices, Edmund-street, Birmingham.

ROTHERHAM HOSPITAL AND DISPENSARY.—Assistant House Surgeon, for six months. Board, lodging, and washing provided.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—Resident Medical Officer for six months. Salary at the rate of £100 per annum, with furnished apartments, board, and washing.

ST. MARY'S HOSPITAL MEDICAL SCHOOL, Paddington, W.—Bacteriologist.

SUNDERLAND INFIRMARY.—House Surgeon. Salary £80, rising £10 annually to £100, with board and residence.

WANDSWORTH AND CLAPHAM UNION INFIRMARY, St. John's-hill, near Clapham Junction.—Junior Assistant Medical Officer for twelve months. Board, lodging, and washing provided, and £35 at end of each six months.

WORCESTER GENERAL INFIRMARY.—Assistant House Surgeon and Dispenser, unmarried, for two years. Salary £70 per annum, with board, residence, and washing.

YORK DISPENSARY.—Resident Medical Officer, unmarried. Salary £150 a year, with furnished apartments, coals, and gas.

Births, Marriages, and Deaths.

BIRTHS.

BURGHARD.—On March 20th, at 46, Weymouth-street, Portland-place, W., the wife of Frédéric F. Burghard, M.S. Lond., F.R.C.S., of a son (stillborn).

MOORE.—On March 24th, at The Dene, Dartford, Kent, the wife of S. J. Moore, M.D. Irel., of a son.

PATTERSON.—On March 21st, at 40, Highbury-place, N., the wife of Charles S. Patterson, M.B., M.R.C.S., of a son.

ROYDEN.—On March 21st, at Burgh St. Margarets, Great Yarmouth, the wife of William Royden, M.A. Cantab., M.R.C.S., L.R.C.P., of a daughter.

SMALLPEICE.—On March 23rd, Cicely, wife of Donald Smallpeice, L.R.C.P. Lond., of a son.

USHER.—On March 24th, at Hazlemere, Thorney Hedge-road, Gunnersbury, the wife of T. S. Usher, M.D., St. And., of a daughter.

WHITEHALL-COOKE.—On March 22nd, at Willesden-green, the wife of Cecil Whitehall-Cooke, M.D. Lond., M.R.C.S., L.R.C.P., of a son.

WOOLLERTON.—On March 21st, at Wendover, the wife of E. G. Woollerton, Surgeon, of a son.

MARRIAGES.

ABRAHAMS—SIMMONS.—On March 18th, by the Very Rev. the Chief Rabbi, assisted by the Revs. J. Samuel and R. Harris, Bertram Louis Abrahams, M.B., B.Sc., M.R.C.P., of 14, Welbeck-street, W., son of L. B. Abrahams, Esq., B.A., to Jane, daughter of A. J. Simmons, Esq., of 41, Gordon-square.

LINDSEY—COATES.—On March 24th, at St. Pancras Church, London, by the Rev. Chas. C. Bell, Alexandra Lindsey, M.D., M.Ch., M.A.O.R.U.I., of Burslem, Staffordshire, to Annie Martha, only daughter of the late Frederick Coates, Esq., of St. John, Hertford.

DEATHS.

HENDLEY.—On March 17th, at his residence, The Croft, Wallingford, Berks, after a very short illness, John Hendley, Surgeon-General, C.B., aged 68.

NISBETT.—On March 18th, at his residence, Overcliffe, Gravesend, Robert Innes Nisbett, M.R.C.S. Eng., L.S.A., in his 70th year.

WILLANS.—On March 17th, at Mentone, William Henry Willans, L.R.C.P. Lond., M.R.C.S. Eng., aged 51.

WILSON.—On March 22nd, at The Cedars, Kenninghall, Norfolk, Joseph Henry Wilson, M.R.C.S. Eng., aged 43.

WYNNE-JONES.—On March 20th, at 53, Port-hill-road, Shrewsbury, Thomas Joseph Wynne-Jones, L.R.C.P., L.R.C.S., &c., late of Murivance House, Shrewsbury, and of Hedingham, Southborough, Tunbridge Wells, aged 38.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 26th, 1896.

Date.	Barometer reduced to Sea Level and 32° F	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia in Vacuo	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Mar. 20	29·93	S.W.	47	45	74	51	39	...	Cloudy
" 21	29·77	S.W.	50	49	78	57	47	0·34	Raining
" 22	29·95	S.W.	57	54	100	66	50	0·04	Cloudy
" 23	30·02	S.W.	49	48	92	62	48	...	Foggy
" 24	29·87	W.	51	48	92	65	48	...	Cloudy
" 25	29·70	S.W.	54	52	102	63	51	...	Cloudy
" 26	29·69	N.W.	48	47	88	52	47	0·01	Cloudy

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side of the paper only.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICES.

THE INDEX TO THE LANCET.

THE Index for the second half-yearly volume for 1895 was given in the issue of Dec. 28th. The practice of supplying loose copies has been discontinued, the Index having been placed in the centre of the journal, whence it can easily be detached, and placed either at the beginning or at the end of the volume.

MEDICAL ADVERTISING.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 7th you give it as your opinion that it is wrong on the part of Dr. Riley to advertise a book on sterility in the female in the lay press. If this be so, is it right that Dr. Lionel Beale, a censor of the College of Physicians of London, should advertise, as he does extensively and has done for many years, in the lay press his book "On Our Morality and the Moral Question"? What is sauce for the goose is usually regarded as sauce for the gander.

I am, Sirs, yours faithfully,

Glasgow, March 7th, 1096. D. CAMPBELL BLACK.

A NECESSARY CONTRADICTION.

To the Editors of THE LANCET.

SIRS,—Reports having been spread abroad that I am about to leave this place on account of bad health, will you kindly allow me, through the medium of THE LANCET, to give them an emphatic contradiction. I have been ill, but am very much better, and have not the slightest intention of parting with my practice. Your insertion of this may save would-be possessors of "dead men's shoes" some trouble. Perhaps you will kindly tell me if it would be considered unprofessional to send a similar contradiction to the local papers. Thanking you in anticipation, I am, Sirs, yours truly,

JOHN P. BALBIRNIE.

Stanley Bank, Staveley, near Kendal, March 25th, 1896.

*** If our correspondent's alleged intention to give up practice has been made public to his detriment, he will certainly be justified in giving the report once and for all an equally public contradiction.—ED. L.

Mr. J. Wilson.—The medical profession recognises the system, but cannot found an institute without Government or lay support.

AMBULANCE LECTURES AND MEDICAL ADVERTISEMENT.

WE have received an account of a presentation to a medical m his ambulance class. The fact of the presentation is gratif we think it a pity that the whole proceedings should be pul large in the lay press. The correspondent who sends us th says, "Will you kindly publish the enclosed in the next issu LANCET. We think it may do some good to the doctor who, deserves to have it published as much as possible." We th for his kindly, if mistaken, feeling; we publish presentat merely the fact of their having taken place, so we are accede to his request.

Mr. J. B. Thomas.—We cannot differentiate between the medical degrees accepted by the General Medical Council as tions. Our correspondent is recommended to consult the his school as to the advisability of acquiring this or that d

BEEF AND MALT WINE AND ANTISEPTIC SCISSORS.

THE connexion may seem puzzling to those of our readers the great majority—who have not done anything of the kind in the remarkable circular below to have earned a pair of scissors. When will some dealers in medical foods learn t profession with respect?

> "Dear Sir,—We have much pleasure in asking you pair of aseptic scissors which we have had specially mad pocket size. At the same time we wish to thank yo recommendations of '———'s Beef and Malt Wi add that our anxiety is to procure a high-class, nouri upon which medical men can rely and prescribe with co
>
> "Yours trul

A CORRESPONDENT sends us the following story from the *Ch* "If not strictly medical," he says, "it is at least dietetic.

> "A missionary in his report to his bishop wrote: 'I that my flock are still addicted to cannibalism, but, t example and precept, they are becoming so far civilised of knives and forks is becoming quite common.'"

THE NEW PHOTOGRAPHY.

THE not too novel saying that nothing is new under been remarkably illustrated in a way by the new phot its application and in its establishment upon a scient process of Professor Roentgen is absolutely new; as an to the philosophic and imaginative mind it is quite cently pointed out that many years ago a Scotch m had prophesied the discovery, and also its possible adjunct to medical diagnosis. Mr. Egerton Castle recently lent us an old book where the simila the fantastic thought of the author and the to-day is very striking. The book is entitled "Le —Magnetiques," and is a French translation from t the Chevalier de Reichenbach. It is a mystical littl thoughts on animal magnetism and wi'd speculatio force, but in several places the luminosity and *trans* tain objects under electrical conditions which are ordinary gaze is dwelt upon as an established physical The book, however, is speculative, not scientific.

Mr. H. Smith of Hemel Hempstead sends us a rem from an article which appeared in the *Family Hera* 1846, concerning a machine named by its inventor, the "anthroposcope":—

> "At a late meeting of the Paris Academy of extract runs, "an extraordinary communication Greek physiologist, M. Eseltja, who asserts that by t electric light he has been enabled to see through t and thus to detect the existence of deep-seated visc has followed the operations of digestion and of circ seen the nerves in motion. M. Eseltja has give 'Anthroposcope' to his remarkable discovery."

What the anthroposcope was beggars imagination. allusion to electric light—not a term in 1846 having t that it has half a century later—it is certain that the had not blundered upon the Roentgen rays. It wou to learn if the Paris Academy of Sciences knov Mr. Eseltja and his anthroposcope.

Mr. J. Hall Edwards.—We cannot see any objection t skilled in recent photography, devoting himself to of it in medical and surgical cases and announcin his intention of doing so through the ordinary chan we assume that he entirely dissociates himself from the case and works only at the instance of the pract ance. We understand these to be the limitations in by our correspondent.

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SINGULAR ACTION AGAINST AN AMERICAN SURGEON.

Dr. BENJAMIN THOMPSON mentions in a recent number of the *Chicago Railway Surgeon* that twelve years ago a railway servant was brought to him with an injury of the left hand, the thumb, index, and middle fingers of which were crushed to a pulp. The man thought that his fingers might be saved, but it was explained to him that this was hopeless, and he ultimately agreed that the surgeon should make a thorough examination under an anæsthetic and do what seemed to be best. The injured portions were duly removed and the patient made a good recovery but a year afterwards he brought an action against the surgeon for $7000 damages for wantonly mutilating him. The case was delayed for several terms of court, the man dying before it was tried, and Dr. Thompson ultimately had a judgment rendered against the deceased for the costs.

THE GEORGE AUGUSTUS SALA MEMORIAL FUND.

AT an influential meeting held on March 25th, at Hampden House, under the presidency of his Grace the Duke of Abercorn, it was decided to raise a memorial fund in recognition of Mr. Sala's long and distinguished journalistic work. A committee has been formed of the following gentlemen:—the Duke of Abercorn, the Duke of Fife, Lord Dufferin, Lord Rosebery, Lord Glenesk, Sir Walter Besant, Sir A. Otway, Sir D. Straight, Sir H. de Bathe, Sir D. Salamans, Sir Augustus Harris, Sir C. Dilke, Sir G. Newnes, Sir H. Gilzean Reid, Sir B. W. Richardson, Sir H. B. Poland, Q.C., Sir Somers Vine, Sir R. Quain, Hon. Alg. Bourke, Count Hollander, Messrs. J. L. Toole, Wm. Black, Geo. Alexander, Wellesley Hammond, A. Goodchild, Chas. Morton, Fredk. Gordon, Tom Bird, John Leighton, T. P. O'Connor, M.P., J. S. Wood, A. J. Warden, A. P. Watt, John Hollingshead, A. Beyfus, Hon. W. F. D. Smith, Horne Payne, G. Edwards, B. Routledge, Walter Weblyn. Of this number the following have consented to act as an executive committee:—Sir Douglas Straight, Sir Somers Vine, Messrs. W. Hammond, A. Beyfus, John Hollingshead and J. S. Wood. Subscriptions are invited for the fund, and cheques may be forwarded to the Duke of Abercorn, hon. treasurer, and receipts will be acknowledged by Mr. W. G. Thistle, 6, Gloucester-road, hon. secretary to the fund.

COMPULSORY ATTENDANCE AND ILLNESSES OF EMERGENCY.

A CORRESPONDENT of the *Bradford Telegraph* is very much concerned because three medical men refused to attend at the summons of the police on a lady attacked in the road with apoplexy. It is a much more common experience to find three medical men in prompt attendance and perhaps none of them paid for it. Will this indignant gentleman, who signs himself an "Eye Witness," take the whole of the subject into his consideration instead of basing an argument for unjust compulsory attendance on a single instance given without the particulars necessary for a sound judgment.

TRULY WONDERFUL—IF TRUE!

A CORRESPONDENT writes:—

"Marvellous stories crop up from time to time of inconceivable persistence of vitality; live creatures of even long bygone ages have been imprisoned in the earth and have resumed life and activity on being disinterred. One of the latest and most circumstantial of these is related in all good faith and at first hand by Lieutenant-Colonel Andrew Haggard, D.S.O., in his recent book 'Crescent and Star' (Blackwood, 1896), wherein he describes his career in the Egyptian campaigns of 1882–85. On p. 300 he says that—'In January, 1885, as a soldier at Suakim was breaking coral rock with a pickaxe to make a ditch to a redoubt what looked like a fossil whelk shell fell out from the interior.' The author picked it up, found it covered with white lime, and concluded that it was the fossil of a hermit crab in a whelk shell. While carrying it about some ten minutes later he 'felt a tickling in the palm of the hand and then a slight nip. On looking at it, lo and behold! the crab had pushed out an antenna and a claw and was not a fossil at all, but alive and well after thousands of years of imprisonment in that coral rock.' The existence of the living hermit crab was attested by many people. The animal was set free afterwards in the sea."

Surely Lieutenant-Colonel Andrew Haggard would have out-Haggarded Mr. Rider Haggard if this had been an invention and not a record of an actual occurrence. Our correspondent continues:—

"The author truly says, 'My thus finding a hermit crab alive in a rock is on a par with the toads which have been found in coal mines, and is equally extraordinary.' I should say that all these stories properly belong to the region of mythology. Nature is not above playing sundry pranks on her creatures, and feats of legerdemain which perhaps cannot always be easily explained are not beyond her powers."

"PROTEST AGAINST THE INJUSTICE OF THE MEDICAL AUTHORITIES."

WE have received a long letter from Dr. Beattie Crozier in reference to our annotation of last week upon his circular notice. Pressure on our space prevents us from printing it this week.

THE POISON OF THE PRIMULA.

WE have had forwarded to us some correspondence which would lead to the supposition that the popular and beautiful primula secretes, at any rate in some of its varieties, an extremely virulent juice. A story of erysipelas-like attacks of face and hands with subsequent desquamation—the attack possibly being dependent upon much handling of certain primulas—was confirmed in one of the horticultural papers (*Gardening Illustrated*, March 7th, 1896) by more than one correspondent, and in a categorical sort of way that would seem to show that the sufferers had really guessed the cause of their troubles. We should like to hear from any of our readers who indulge in practical gardening if they have ever experienced any cutaneous trouble while potting or repotting primulas, or to learn if anyone has had under his care a patient so suffering. An annotation upon the subject, where the offending plant was primula obconica, appeared in THE LANCET of Sept. 20th, 1890.

ERRATUM.—In our annotation of March 21st concerning the Church of St. Bartholomew the Great, the address of the rector—the Rev. Sir Borrodaile Savory—was wrongly printed as 12, King-street-chambers, West Smithfield, the number should have been 20.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (30th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.).

TUESDAY (31st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (1st).—St. Bartholomew's (1.30 P.M.), University Colleges (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.).

THURSDAY (2nd).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Great Northern Central (Gynæcological, 2.30 P.M.).

FRIDAY (3rd).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.) Gt. Northern Central (2.30 P.M.).

SATURDAY (4th).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (30th).—CLINICAL SOCIETY OF LONDON.—8.30 P.M. Prof. Sylvanus Thompson: Demonstration of the Roentgen Process.

WEDNESDAY (1st).—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens by Dr. Duncan, Dr. Spencer, Dr. Galabin and others. Papers:—Mr. J. Rutherford Morison (communicated by Mr. A. Doran): Case of Deciduoma Malignum occurring in England.—Dr. H. R. Spencer: Case of Deciduoma Malignum.—Dr. T. W. Eden: Deciduoma Malignum; a Criticism.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

WEDNESDAY (1st).—WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. Seymour Taylor: Cases of Difficult Diagnosis.

During the week marked copies of the following newspapers have been received:—*Glasgow Evening News, Leicester Daily Post, Gloucester Journal, Scotsman, Craven Herald, Slough Observer, Preston Guardian, Liverpool Daily Post, Builder, Royal Cornwall Gazette, Times of India, Liverpool Courier, Yorkshire Post, Leigh Chronicle, Manchester Guardian, Derby Express, Pioneer Mail, Sheffield Telegraph, Leeds Mercury, Dundee Advertiser, Architect, South London Press, Newcastle Chronicle, Hampshire Independent, Birmingham Gazette, Bristol Mercury, Irish News, Bradford Observer, Bury Guardian, Leyton Independent, Brighton Argus, Western Morning News, Sanitary Record, Hertfordshire Mercury, Mining Journal, Daily Chronicle, Reading Mercury, Weekly Free Press and Aberdeen Herald, Local Government Chronicle Wigan Observer, Evening Telegraph (Dundee), City Press, Gloucestershire Chronicle, Local Government Journal, Surrey Advertiser, Buchan Observer, Ayr Observer, Shrewsbury Chronicle, Lincolnshire Echo, Newark Advertiser, Banffshire Advertiser, Birmingham Daily Post, Le Courrier de la Presse, West Britin Advertiser, Kentish Mercury, Warwickshire Times, Exeter Flying Post, Southampton Times, Medical Record (New York), The Press (Christchurch, New Zealand), &c., &c.*

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